Taking Curriculum for Wales Forward: Engaging, Planning, Enacting, Learning

George MacBride

Honorary Senior Research Fellow

School of Education

University of Glasgow

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1. Introduction

This paper responds to a commission¹ to provide recommendations to the national network, established by the Welsh Government with Estyn and regional consortia, as it moves to consider the specification and design of resources and materials which will provide support for continuing engagement with Curriculum for Wales, further development of the Curriculum at all levels of the education system and, more specifically, enactment of the Curriculum in schools and other educational settings.

Role of the national network

Building on information provided in the commission for this paper, it is assumed here that this Network will act as the key vehicle for identifying, analysing and addressing needs for support as practitioners, schools, groups of schools, local authorities, consortia, national public bodies and other actors participate in the processes of curriculum development and enactment. Accordingly the Network will provide a common reference point for:

- ensuring that national and local workstreams, their processes and their outcomes
 - continue to be clearly aligned with the principles underpinning Curriculum for Wales
 - take forward the processes of development which have resulted in the national curriculum guidance
 - are aligned with and, where necessary, explicitly relate to other national policies relevant to education
- sharing understanding and expertise and supporting alignment and cooperation across these workstreams
- identifying gaps, now and in the future, in provision of resources and materials to support the development of Curriculum for Wales
- identifying any areas of tension which may arise within the development process and considering means of addressing these
- identifying possible barriers to any aspect of development and considering means of addressing these
- supporting collaborative relationships among policy makers, practitioners, researchers and others with specific expertise
- arranging for the development and provision of resources and materials, commissioning these as required
- providing guidance to organisations developing resources, commissioned or volunteered.

This paper seeks to develop a set of guiding principles for consideration by the Network in considering matters relevant to resources which support the development of the Curriculum.

Sources of information

The following have been drawn on in the preparation of this paper:

¹ 2021-01-15 Commission for Resources and Supporting: Materials Scoping brief for a national network to consider and develop

- published research in the fields of curriculum development, assessment and sustainable educational development
- the two reports published by the CAMAU project (Learning about Progression² and So Far So Good³)
- published Welsh Government documentation, in particular Curriculum for Wales Guidance⁴
- the author's participation in the CAMAU research project
- the author's participation in aspects of the curriculum development process in Wales leading up to and since publication of *Curriculum for Wales Guidance*
- the author's earlier experience as practitioner, contributor to policy change and researcher in the processes of curriculum development in Scotland.

Structure of the paper

- Section 2 provides an executive summary
- Section 3 outlines the likely purposes and range of support resources and materials.
- Section 4 identifies fundamental features of Curriculum for Wales which should be clearly reflected in any support processes and resources.
- These fundamental features are developed further in Sections 5 through 9 in order to identify necessary features of any support.
- The roles to be played by the learner in these processes is considered briefly in Section 10.
- Section 11 identifies some issues specific to individual Areas of Learning and Experience and implications for support.
- Section 12 notes a range of likely risks which can be prevented or their effects mitigated by suitable planning of resources.
- Section 13 notes some practical issues regarding the presentation of resources and materials in ways that ensure accessibility and promote engagement.
- Section 14 brings together the recommendations which have been noted throughout the paper.
- Section 15 lists articles and documents to which reference has been made in the text.

A couple of points about presentation

- Recommendations are italicised and listed at the end of the relevant section.
- all recommendations are listed together in Section 14.
- for ease of reading, Welsh Government publications (e.g. *Curriculum for Wales Guidance*) and the two CAMAU reports (*Learning about Progression*, *So Far So Good*) are referred to in

² Hayward, L., Jones, D. E., Waters, J., Makara, K., Morrison-Love, D., Spencer, E., Barnes, J., Davies, H., Hughes, S., Jones, C., Nelson, S., Ryder, N., Stacey, D., Wallis, R., Baxter, J., MacBride, G., Bendall, R., Brooks, S., Cooze, A., Davies, L., Denny, H., Donaldson, P., Lewis, I., Lloyd, P., Maitra, S., Morgan, C., Pellew James, S., Samuel-Thomas, S., Sharpling, E., Southern, A., Stewart, S., Valdera-Gil, F., & Wardle, G. (2018) *Learning about Progression: research report*. University of Glasgow and University of Wales Trinity Saint David, Glasgow and Swansea.

³ Hayward, L., Barnes, J., Davies, H., Hughes, S., MacBride, G., Makara, K., Morrison-Love, D., Ryder, N., Sharpling, E., Spencer, E., Stacey, D. & Wallis, R. (2020). *So Far So Good: Building the Evidence Base to Promote a Successful Future for the Curriculum for Wales*. The University of Glasgow with the University Of Wales Trinity Saint David, Glasgow and Swansea.

⁴ Welsh Government (2020a) Curriculum for Wales Guidance

the text and footnotes by commonly used short titles; full references are provided in the final section of the paper.

A note of thanks

The author wishes to record his thanks to:

- colleagues in the University of Glasgow and in the University of Wales Trinity Saint David whose work as members of the CAMAU team included the earlier identification and consideration of many of the relevant research papers referred to in this text
- colleagues in the Welsh Government whose informed thinking has contributed much to the understanding of issues considered here
- practitioners in schools in Wales who have identified matters which may well merit being addressed as Curriculum for Wales moves into the next stages of development and enactment.

Responsibility

The responsibility for any misinterpretations or errors in this paper rests with the author.

2. Executive summary

This paper starts from four premises. Firstly, this Curriculum is innovative, ambitious and challenging in more than one respect. Secondly there are considerable consequent implications for the processes of engagement and enactment, for capacity building and professional learning and for the creation of a culture of enquiry. Thirdly, all participants in Welsh education merit support as they address these issues. Finally, the sustainable successful enactment of Curriculum for Wales in schools is contingent on all in Welsh education recognising and addressing these three points. The implications of this are considered in the paper under six main headings.

Curriculum for Wales is explicitly and fundamentally a purpose-led curriculum built on a shared vision and shared aspirations for every child and young person.

The vision which will inform the development of each school's curriculum should be based on the development and realisation of the Four Purposes: all planned learning should support children and young people to engage with the Four Purposes, enact these through their learning and make further progress towards accomplishing the Four Purposes. Schools and practitioners should develop a vision for their purpose-led curriculum which will underpin:

- all stages of the school curriculum planning process (school, class and lesson planning)
- all learning contexts (classroom, life of the school, formal and informal learning beyond the classroom and school)
- all aspects of the curriculum (Areas of Learning and Experience, mandatory skills frameworks, cross-curricular themes)
- all aspects of learning, processes as well as achievement.

This process is critical to developing a genuinely transformational curriculum and must precede and then accompany school and classroom planning.

The structure and organisation of Curriculum for Wales has been designed to embody the Four Purposes in all learning

The structure of Curriculum for Wales is fundamentally simple – Purposes, Areas of Learning and Experience, What Matters statements, Progression Steps, Descriptions of Learning, all clearly related to one another. To these must be added the skills, elements and themes which are best described as cross-curricular. The curriculum structure is designed to allow schools and practitioners enhanced freedom and responsibility in planning curriculum content, pedagogy and assessment which both supports learners to develop further towards the Four Purposes and responds to school contexts and individual needs. The simple structure and the enhancement of autonomy and responsibility may together be perceived by practitioners and others as very different from the structures and culture to which they have been accustomed.

The relationship between structure and aspirations and the implications of this must be recognised explicitly and addressed by those creating resources and support for schools and practitioners in Wales.

Progression in learning, rather than coverage of content, is at the heart of Curriculum for Wales

The concept of progression in Curriculum for Wales allows the nation, the education system, schools and practitioners to realise national aspirations for children and young people while simultaneously recognising, indeed celebrating the differences and diversity of individuals, communities and schools. Understanding of progression requires a deep shift in thinking away from delivering content towards a focus on how learning, both processes and outcomes, develops over time for different young people in different ways. The statements of the Areas of Learning and Experience and What Matters identify the key concepts, skills and attributes which all learners should develop; the Descriptions of Learning provide a big picture of progression through this essential learning. Making use of this route map, schools, practitioners and learners will be able to identify and plan different pathways to support learners in their progression towards the Four Purposes, recognising as they do so difference and diversity, individual, community and institutional. These pathways will include finer grained descriptions of progression which describe learning over a relatively short period.

As they plan their school's curriculum, schools and practitioners must be supported through capacity building and professional learning which develop the knowledge, skills and attributes required to carry out these responsibilities.

Assessment which promotes progression is forward facing to inform future learning rather than backward facing to judge and record attainment to date

Assessment processes perform two fundamental functions in education systems:

- judging and recording past learning
- informing progression from current to future learning.

The former employs evidence of past learning in order to judge, record and often summarily label or grade what has been learned. The results are used frequently for purposes directly relevant to the learner and may also be used to inform school accountability and improvement procedures. The latter considers evidence of learning processes and achievements to date in order to identify and inform means of supporting the learner to successfully make further progression. This involves consideration of evidence of what has been learned and of how this has been learned in order to plan the next stage of learning and the means of achieving this.

It is this second function which assessment carries out in Curriculum for Wales: practitioners and learners play active complementary parts in carrying out three roles:

- supporting individual learners on an ongoing, day-to-day basis
- identifying, capturing and reflecting on individual learner progress over time
- understanding group progress in order to reflect on practice.

The use of assessment to inform progression from current to future learning will require considerable shifts in understanding and practice which must be supported not only by professional learning but also by consistency of policy and messaging across all policy actors.

Development of this Curriculum requires subsidiarity, co-construction and shared learning within a culture of enquiry.

These three aspects are distinct but closely intertwined in the development process to date and will remain so as schools plan their curriculum to meet the needs of their learners.

The structure of Curriculum for Wales is designed to provide space for subsidiarity and to enhance the responsibilities and rights of schools and practitioners to address the needs of their learners: all expectations (Four Purposes, statements of What Matters, Descriptions of Learning) are expressed at a high level which ensures space for all those working with them to develop them to meet the needs of their own contexts, respecting diversity, addressing difference and making use of a range of expertise through the development of different pathways.

Co-construction processes recognise the importance of and provide opportunities for:

- respecting the different voices in the system
- providing space and time to think and engage together
- developing clear shared understandings of principles
- promoting critical engagement with different types of expertise
- ensuring coherence across planning
- developing new understandings of leadership at all levels.

Enacting Curriculum for Wales requires models of capacity building and professional learning which differ from traditional models in fundamental ways. The focus should be on developing the capacity of the whole system and of all those within it to improve learning now and in the future rather than on developing the specified knowledge and skills of individual practitioners for a prescribed and bounded purpose at one particular moment. This requires the education system to develop the capacity at all levels to support the active critical engagement of all involved in teaching and learning and in managing and supporting teaching and learning through:

- developing, supporting and using participative models of policy engagement and enactment
- supporting communities of learning and networks through the provision of resources (including time), critical friendship and access to research
- developing the skills of all within the education system to participate actively in collaborative learning
- recognising that all can contribute to leadership of learning
- building on existing expertise rather than ignoring or discounting it
- the provision of resources, including time.

Participants at all levels of the education system will be involved actively in new ways of working which may at times be uncomfortable and which will require new understandings of policy development processes, changed responsibilities and enhanced rights to carry out these responsibilities. All will benefit from support as they meet these challenges.

Developing learner voice and participation

Throughout all of these processes, learners should have opportunities and means of contributing their views. Listening respectfully to learners and engaging with what they have to say can take place through a range of school activities and contexts which ensure their presence, participation and

power. These include participation in formal consultations and working groups as well as participation in classroom curriculum, pedagogy and assessment practices in which they play active roles in planning, participating in and reviewing learning experiences. Learners like all other participants in co-construction bring their own experience to the table and, again like all other participants, they need to share in and understand the experience and perspectives of others, including those related to policy and research. Learners can understand the role of research through participation in the planning and conduct of research, through ensuring that their views are expressed and recorded, and reviewing evidence to determine conclusions that arise.

Learners should play an active part in all aspects of learning: in developing learning intentions and success criteria, in dialogue about their learning in the course of classroom activity, through responding to feedback from peers and practitioners, through the processes of self-assessment, through responsibility for managing a learning portfolio, through identifying and evidencing learning that has taken place beyond the classroom. All such activities provide opportunities to enact and develop the Four Purposes.

Developing the roles carried out learners within the education system to match the aspirations and Four Purposes of the Curriculum for Wales implies changes in practice at all levels of the system. While this may be most evident in classrooms and schools as children and young people become more active, more autonomous and more responsible for their learning, support and stimulus will be valuable at all levels of the education system.

Further points

The final sections of the paper cover a number of points which will merit consideration throughout the processes of engagement and planning.

While much planning will involve issues common to all aspects of the curriculum, there are several matters which may arise in individual Areas of Learning and Experience for which there may be a perceived need for resources to support development. These often reflect the innovative nature of Curriculum for Wales, the consequent extended rights and responsibilities of schools and practitioners and the central concept of progression in learning.

Addressing these particular matters will merit support developed on the generic principles noted in this paper to ensure that planning is not impeded.

The paper identifies a number of possible risks which may arise from:

- pressures to move quickly to detailed planning rather than engaging fully with the purposes and fundamental principles of the Curriculum
- the legacy of former models of accountability which make use of assessment data in ways inappropriate to Curriculum for Wales
- misunderstanding of the nature of the curriculum and of how the curriculum structure informs planning of learning
- provision of support in ways which limit the full adoption of subsidiarity and co-construction
- retrofitting and use of off-the-shelf materials
- perceptions of lack of coherence across policy

• limited approaches to capacity building and professional learning.

Throughout the development process, support should seek to prevent risks such as these arising and, if they do in fact arise, should seek to counter and mitigate their impact. Attention should be paid to recognising further sources of risk as they emerge.

It is crucial that all should have ready access to support at all stages of curriculum development and planning.

A number of issues related to ensuring that support is accessible to all and capable of adaptation to meet local contexts, interests and needs are noted.

The issues considered throughout this paper are mutually dependent and often closely entwined. Recommendations are developed and for each section of the paper and placed at the end of the relevant section. They are also collected in a final single list.

It may be difficult to address any one recommendation without some consideration of some others.

3. Definition and purpose of resources and supporting materials

The Welsh Government's mission statement for education⁵ builds on the recommendations provided by an OECD team after a review of recent and ongoing developments in Welsh education. The recommendations made by the OECD team included that government should:

- bring further coherence across the various reform initiatives, ensuring that this coherence is evaluated at key points in the journey
- continue the process of co-constructing policies with key stakeholders...
- continue the strengthening of Wales' school improvement infrastructure ...
- further enhance the use of evidence and research and its link to policy...⁶

More particularly, these processes would require that Welsh schools exemplify the characteristics of effective learning organisations and that the teaching profession among other characteristics will be:

- high-quality, collaborative and driven by a deep understanding of pedagogy and subject knowledge
- research-engaged, well informed and learning from excellence at school, local, national and international levels
- well led by leaders who will ensure that every teacher can improve through effective collaboration, innovation, professional learning and opportunities to provide professional leadership to others...⁷

Given that Curriculum for Wales is at the heart of this mission, it is crucial that all resources designed to support the development of the Curriculum are fully aligned with the aspirations of this national mission. In particular, support resources should not only support approaches to capacity building and professional learning aligned with this vision but also themselves employ such approaches.

Models of capacity building and professional learning⁸

Education systems make use of various types of resources and materials to support curriculum planning in schools. In many systems, these are designed to support practitioners as they deliver a prescribed curriculum in their classrooms; this approach may be realised through the provision of:

- · detailed explanations of curriculum standards
- examples of learners' work which illustrates attainment of these standards
- approved teaching materials explicitly aligned with the curriculum
- tests or other assessments to be used to judge attainment of curriculum standards
- guided professional learning activities to develop practitioners' knowledge and understanding of curriculum standards
- examples of 'best classroom practice' to be adopted by practitioners.

In many cases some aspects of the curriculum are afforded higher prominence (typically, literacy in the national language, numeracy, science, an international language).

Curriculum for Wales is based on a different concept of the curriculum⁹ which embodies a different and more complex understanding of the rights and responsibilities of schools and practitioners with

⁵ Welsh Government (2017) Education in Wales: Our national mission Action Plan 2017-21

⁶ Our national mission p. 8

⁷ Our national mission p. 11

⁸ More detailed implications of using this model in developing the school's curriculum are considered in Section 9.

⁹ Sections 4 through 9 of this paper develop this statement.

regard to curriculum policy and development; this implies a significantly different approach to capacity building and professional learning and the consequent development of support resources and materials. This different approach is encompassed within Welsh Government policy on the development of *Schools as Learning Organisations*¹⁰ across seven dimensions:

- developing a shared vision centred on the learning of all learners
- creating and supporting continuous learning opportunities for all staff
- · promoting team learning and collaboration among all staff
- establishing a culture of enquiry, innovation and exploration
- embedding systems for collecting and exchanging knowledge for learning
- learning with and from the external environment and wider learning system
- modelling and growing learning leadership.

This model is reflected in the Welsh Government's published *Professional standards for teaching and leadership* and *Professional standards for assisting teaching¹¹*: in particular through the inclusion, as one of the overarching values and dispositions, of the right of all practitioners 'to be a part of a school that sees itself as a learning organisation' and through the five standards common to all practitioners:

- pedagogy
- collaboration
- innovation
- professional learning
- leadership.

This model is built on OECD findings¹² which further argue for the importance of four transversal themes running through all of the seven dimensions:

A set of themes flows through all seven dimensions: the four Ts: trust, time, technology and thinking together. Although some of these themes may seem more pertinent to one action than to another, all four have an impact on the whole. For example, trust underpins the kind of relationships needed internally and externally for learning organisations to thrive; and all aspects of school development require the provision of time.

These seven dimensions, four transversal themes and five standards, interwoven in practice and in professional development, are all relevant to the vision and principles that underpin Curriculum for Wales. It will be important for ensuring coherent development that all resources and materials intended to support the development of this Curriculum in schools are fully aligned with these interlinked sets of principles and informed by the illustrative statements and descriptors associated with them in each of *Our National Mission*, the *School as Learning Organisation* and the two sets of *Standards*.

This model of capacity building and professional learning differs from the traditional model in fundamental ways. The focus is on developing the capacity of the whole system and of all those within it to improve learning now and in the future rather than on developing the specified

¹⁰ Welsh Government (2018) Developing Schools in Wales as Learning Organisations

¹¹ Welsh Government (2019a) *Professional standards for teaching and leadership*; Welsh Government (2019b) *Professional standards for assisting teaching*

¹² OECD (2016) What makes a school a learning organisation? A guide for policy makers, school leaders and teachers. Paris: OECD

knowledge and skills of individual practitioners for a prescribed and bounded purpose at one particular moment. Capacity building and professional learning are now recognised as:

- ongoing forward directed processes rather than as a, perhaps apparently incoherent, series
 of discrete, often reactive, events
- learning which develops through planned interaction with interested others rather than relying only on individual activity
- learning which is active, promoting critical engagement, rather than passive, demanding uncritical reception.

This requires the education system to develop the capacity to support this learning, including:

- recognising that sustained improvement requires the active engagement of all participants at all stages of development from initial consideration and planning to enactment in classrooms
- the development of participative models of policy development to replace prescription supported by 'cascading' and 'roll out'
- developing the capacity of all within the education system to participate actively in collaborative learning
- building on existing expertise rather than ignoring or discounting it
- the provision of resources, including time.

Although this model was developed by OECD and taken forward by the Welsh Government with specific reference to the school as an institution, the development of Curriculum for Wales has demonstrated that it is feasible and valuable to extend the principles underpinning this model to all levels of the education system (classroom, school, cluster, local authority, consortium, government). Practitioners and policy makers involved in the development process have stated consistently that continuing to make use of this approach, and building the necessary capacity, is necessary if Curriculum for Wales is to achieve its aims¹³.

Audiences, purposes, adaptability

This paper is intended to inform the planning and review of resources and materials which may be designed to support this continuing development process.

The transition from the existing curriculum and the procedures associated with it to Curriculum for Wales may not always be easy or comfortable. It will require resources and materials radically different from those employed in previous more limited processes of curriculum change. The context in which these resources are used and the intended audience will strongly influence the

¹³ e.g. *So Far So Good* p. 54:' In the development stage, a crucial aspect of subsidiarity was the active engagement of teachers in collaboration with policy makers (Government Leads and Consortia Leads) and researchers to identify and articulate the key characteristics of the curriculum and of progression.'

So Far So Good p. 56: 'A range of professional learning activities as no single approach will suit everyone, but it is key that participants are engaged in regularly in reflective activities (researching, discussing, understanding, reflecting), rather than simply listening or implementing ready-made courses. Ensuring critical voices are heard is crucial to promoting critical reflection. Reading and thinking time are essential.'

So Far So Good p. 73: '[policy] interviewees referred extensively and positively to the co-construction of the curriculum during the development phase and the need and feasibility for this approach to continue to be supported during the enactment phase.'

content, presentation, scaffolding, format and means of accessing the resources and materials: the context includes local priorities, immediate aims, the prior experience, understanding and skills of participants, and the history and culture of the establishment.

Those most directly involved in further development of Curriculum for Wales are all those practitioners¹⁴ who provide education in all settings for learners aged 3-16: these settings include primary, secondary and special schools, funded non-maintained nursery settings, pupil referral units (PRUs) and those providing education other than at school (EOTAS)¹⁵. As importantly, the further development of Curriculum for Wales involves all those who participate in the work of national and local bodies responsible for the management and support of schools and other settings: relevant Welsh Government Divisions; Estyn; Qualifications Wales; regional consortia; local authorities; diocesan authorities; governing bodies of maintained schools, including nurseries, and management boards of pupil referral units.

There will be organisations outside the education system itself which are likely to wish to contribute to supporting the further development of Curriculum for Wales and its enactment in practice in schools. These include:

- statutory bodies with wide-ranging responsibilities which concern education (e.g. Children's Commissioner for Wales, Welsh Language Commissioner)
- organisations with a strong interest in one or more areas of learning, some public (e.g. Cadw, National Museum of Wales), some independent (e.g. the Learned Society of Wales, the Institute of Physics, the Institution of Engineering and Technology)
- charities and civil society organisations representing the interests of children and young people (e.g. Place2Be, NSPCC)
- charities and civil society organisations which wish to inform or involve children and young people in their work (e.g. Oxfam, Amnesty International)
- political and economic interest groups (e.g. Chambers Wales)
- higher education
- practitioner trade unions, professional bodies and interest groups (e.g. NEU, UCAC, subject interest networks, stage related interest groups)
- educational consultants
- commercial organisations and publishers (online or print)¹⁶.

A categorisation of the purposes for which resources and associated materials are likely to be developed includes but is not limited to:

- developing and sharing understanding of key curricular principles underpinning Curriculum for Wales and of ways in which these should inform school curriculum planning, organisation and structure
- developing and sharing understanding of key processes of curricular planning, including:
 - using the high level statements of the Descriptions of Learning to inform the planning of learning in terms of finer grained progression

¹⁴ In this paper, the word 'practitioners', when used without qualification, encompasses all those who contribute to learning (headteachers, teachers, those who assist teaching).

¹⁵ In this paper, when the word 'schools' is used without qualification, it encompasses all such settings.

¹⁶ Organisations are named here only for the purpose of exemplification.

- integrating selection of content, pedagogical approaches and assessment activities within a single planning process
- developing understanding of the importance of selecting and using content which will clearly support progression in the concepts, skills and dispositions required by the statements of What Matters
- developing and sharing understanding and skills required to plan progression over both shorter and longer timescales (e.g. within a topic or unit, over the course of a year's study, across the transition from one year to the next, along the continuum within and across Progression Steps)
- developing and sharing understanding and skills required to plan progression within and across Areas of Learning and Experience and within and across statements of What Matters
- developing and sharing understanding and skills required to plan progression in the mandatory cross-curricular skills and curriculum elements within and across the structure of the Areas of Learning and Experience
- developing and sharing understanding and skills in the use of assessment to support and inform progression in learning
- addressing issues specific to individual Areas of Learning and Experience.

Addressing these purposes effectively implies that resources and associated materials encourage the sharing of knowledge and expertise through collaboration across discipline boundaries, across year groups, across schools and across sectors. This collaboration requires the involvement both of those most directly involved in teaching any particular aspect and of those with wider responsibilities for curriculum planning within and beyond the school. Co-construction¹⁷ drawing on policy, practice and research is a key means of informing these collaborative processes. Resources should contribute to such processes as (this is not a definitive list):

- developing understanding of the value of collaboration and co-construction in the further development of Curriculum for Wales
- developing understanding of the extended and enhanced responsibilities of all those with a role in education to contributing to the further development of Curriculum for Wales
- using the processes of self-evaluation (school and professional) to recognise, review and build on strengths (systemic and personal)
- using the processes of self-evaluation (school and professional) to identify needs, whether system wide, school or individual
- developing understanding of the means by which policy, practice and research can be brought together to inform development at all levels of the system
- promoting alignment of policy across the different actors and levels within the education system
- developing the skills and capacities of all involved to initiate, support and contribute to these processes of collaboration and co-construction.

Subsidiarity is another foundation stone of Curriculum for Wales¹⁸. Recognising this has implications not only for schools and practitioners but also for those involved at all levels of the system in supporting school curriculum planning. These implications include the recognition that all

¹⁷ This topic is developed in more detail in Section 9.

¹⁸ This topic is also further developed in Section 9.

participants are in some sense learners and that all merit appropriate support. Curriculum for Wales recognises that contexts vary and support must be designed in ways that recognise this fact. Contexts in which resources and materials are used may differ in terms of one or several of:

- system level (national, local, school, classroom)
- school context (geographic, demographic, linguistic)
- institutional experience, culture and history, size and organisation
- resources available (time, links to partner organisations, critical friends).

Individuals may differ in terms of one or several of:

- legal and contractual responsibility for enactment of the Curriculum
- professional responsibilities within the processes of enactment
- · responsibility for providing support for enactment in schools
- experience, including in modes of collaborative working
- year groups, classes and disciplines taught
- prior participation in the development of Curriculum for Wales.

There are a number of ways in which resources and materials can support such differentiation of support¹⁹:

- making the development of the authors' thinking explicit and thereby accessible and open to critical engagement
- making key principles explicit and thereby accessible and open to critical engagement
- focusing on key principles and strategic approaches rather than on specific techniques and prescribed tactics
- ensuring that materials promote interactive and group approaches to professional learning
- supporting initial self-evaluation of the school context to inform identification of priorities
- structuring resources to include space for participants to consider critically evidence from their own immediate context
- avoiding detailed prescription of activities or approaches
- providing mediating approaches and scaffolding for engagement with new concepts
- using illustration and exemplification of practice to stimulate critical engagement rather than to prescribe reproduction
- affording opportunities for working across different system levels
- affording opportunities for working with different partners in the education system
- providing materials in modifiable formats.

Resources and associated materials can make use of a range of activities to engage practitioners, such as (again, this is not an exclusive or definitive list):

- using workshop approaches to support active participation
- prompting critical consideration of annotated exemplification of learner progression
- scaffolding critical consideration of research
- providing support for practitioner enquiry
- planning a research partnership
- supporting collaborative working processes

¹⁹ There is some further consideration of this in Section 9; Section 12 notes some practical aspects of accessibility and adaptability.

- self-evaluation procedures
- discussion prompts
- contributing critical friendship.

Recommendations: Section 3

- 1. The principles developed in this paper apply to support resources for all within the education system, whatever their role or organisation, as they carry out their responsibilities for the development and enactment in schools of Curriculum for Wales.
- 2. The recommendations of this paper may be used by the Network to develop guidance and quality assurance arrangements for other organisations who wish to develop resources to support Curriculum for Wales, whether volunteered or nationally or locally commissioned.
- 3. Resources and materials designed to support the development of Curriculum for Wales should:
 - be informed by a recognition of the importance both of capacity building (systemic and institutional) and of professional learning, including recognising that these two aspects are inextricably linked.
 - be aligned with the principles and model of capacity building and professional learning developed by the Welsh Government in its statements on Education: Our National Mission, on Developing Schools as Learning Organisations and on Professional Standards for teachers, leaders and those assisting teaching.
 - embody in themselves the principles of collaboration and co-construction established in the processes of developing Curriculum for Wales at earlier stages.
 - employ collaborative learning approaches which encourage all participants to share responsibility for capacity building and which afford all participants active roles in contributing their experience and expertise to developing their own professional skills and those of others
 - provide space, as users engage with key principles, to apply them appropriately to their own context, which permits the recognition of the specific characteristics, capacities, strengths and needs of different contexts and individuals; opportunities for adaptation to meet local interests and needs should, where possible, be readily available
 - provide a variety of activities to engage practitioners and, in so doing, draw on and make
 full use of the affordances inherent in a range of media, including those afforded by digital
 technology, which support the model of capacity building and professional development
 required by Curriculum for Wales.
- 4. All resources intended to support the enactment of Curriculum for Wales in schools should contribute to developing understanding of the fundamental curriculum principles, to developing understanding of how these inform the organisation and structure of the Curriculum and to supporting the growth of skills in applying this understanding to underpin the school's curriculum and learning planning.
- 5. There may be specific issues associated with individual Areas of Learning and Experience, with particular stages of schooling (e.g. early years, school qualifications) or with particular educational contexts (e.g. PRUs) which may need to be addressed through specific resources; these also should be informed by the same common principles as more generic resources.

4. Curriculum for Wales is innovative, ambitious and challenging

Sustainable enactment of Curriculum for Wales in schools is contingent on recognising the extent and ways in which this Curriculum is innovative, ambitious and challenging. The fundamental purposes, the development of a new curriculum structure, the place of progression in learning as the guiding educational principle and the processes by which the Curriculum has been developed all have major implications for the processes of engagement and enactment.

The curriculum development process in Wales clearly exemplifies²⁰, at times explicitly, its recognition of the proposition that the curriculum and curriculum development must reflect our vision of society. In the words of research²¹ into recent national curriculum development processes in nine countries across Europe,:

Curriculum making is essential, in order to build strong educational systems and, thus, work to develop and maintain the basic, yet contested values of democracy, equality and participation.

This understanding of the role played by the curriculum and curriculum making in society complements (and extends from structure to core activity) the findings of research in Scotland which concluded that comprehensive education has a major role to play in promoting such a society²². The model of development employed in creating Curriculum for Wales in itself promotes the values of equity and participation as all participants work towards the planning and provision of engaging and challenging learning experiences which will develop the Four Purposes.

Mark Priestley and his colleagues (pp. 288-290) argue that curriculum making of this type should demonstrate a number of key characteristics which can be summarised under the headings:

- participatory curriculum making
- accountability based on trust
- the importance of middle ground and mobility
- balanced regulation
- agency of the educational system.

Without explicitly using all of this language, Curriculum for Wales reflects this research-informed view of what should be the characteristics of curriculum making in a democratic country in the 21st century.

For many participants at all levels of the Welsh education system, this approach may signify a major shift in understanding from that required by the current curriculum specification and the policies and practice which have been associated with it. Indeed a shift of this nature may be described as a 'paradigm shift' in thinking, to employ, as others have done, the concept developed by Thomas Kuhn in considering the history of science²³. There is a considerable risk that, without support, many may respond to such a paradigm shift by 'retrofitting' current policy and practice to match the surface description of the new curriculum without engaging with the principles that underlie this. Thus, relatively minor changes may be made to practice without the significant features of the curriculum

²⁰ See e.g. Our national mission, passim. The Four Purposes and the justification of these also make this explicit.

²¹ Priestley, M., Alvunger, D., Philippou, S. & Soini, T. (eds.) (2021). *Curriculum Making in Europe*. Bingley, UK: Emerald Publishing p.288

²² Murphy, D., Croxford, L., Howieson, C. & Raffe, D. (2015) *Everyone's Future: Lessons from fifty years of Scottish comprehensive schooling*. London: Institute of Education Press: this argues that the structures of comprehensive schooling can and often do promote, though to varying extents, liberty, equality and fraternity.

²³ Thomas Kuhn (1996)). *The structure of scientific revolutions, 3rd ed.* Chicago: University of Chicago Press..

having any real impact on teaching and learning. If current practice in the school or classroom continues largely unchanged, the values and aspirations of the new curriculum will be ignored, noted only rhetorically or even distorted or subverted²⁴.

It would be mistaken to consider this as an issue to be addressed only at the level of the individual school or classroom. That approach is derived, ironically, from the former curricular and professional development models which themselves have contributed to such practices of accommodation. Several chapters in a recent collection²⁵ provide powerful evidence that policy and associated practice can over a period of time establish a culture, organisational structures and unexamined mindsets which continue to exist long after policy has formally changed, resulting in the new policy and intended practice being partially or inconsistently or reluctantly implemented.

So far as curricular purposes, values and principles are concerned, the following can be identified as key differences in Curriculum for Wales from previous policy and practice: addressing these may appear variously in different contexts as stimulating, ambitious and/or challenging:

- Curriculum for Wales is explicitly and fundamentally a purpose-led curriculum built on a shared vision and shared aspirations for every child and young person.
- The structure and organisation of Curriculum for Wales has been designed to embody the Four Purposes in all learning.
- Progression in learning, rather than coverage of content, is at the heart of Curriculum for Wales.
- Assessment which promotes progression is forward facing to inform future learning rather than backward facing to judge and record attainment to date.
- Development of this Curriculum requires subsidiarity, co-construction and shared learning within a culture of enquiry.

The next sections (5 through 9) consider the implications of each of these key points.

- Recommendations: Section 4

- 6. Resources and materials designed to support the development of Curriculum for Wales should recognise that resources developed for use in another education system or for a different period in Wales cannot be simply retrofitted into the context of Curriculum for Wales.
- 7. The legacy of previous policy and practice requires that all resources designed to support Curriculum for Wales should consistently and clearly reference and embody the values and principles which have informed development to date if they are to successfully develop understanding of these and avoid promoting superficial change.
- 8. To ensure full recognition of these fundamental concepts and principles support resources should draw on and, as appropriate, make reference to all aspects of the Curriculum for Wales Guidance including the sections entitled 'Designing your curriculum' and the section on assessment.

²⁴ See for example Cuban, L., (1993). *How Teachers Taught: constancy and change in American classrooms 1890–1980*. New York: Teachers College Press.

²⁵ Alarcón, C. & Lawn, M. (eds.) (2018). Assessment Cultures: Historical Perspectives. Berlin: Peter Lang

5. Curriculum for Wales is a purpose-led curriculum built on a shared vision and shared aspirations for every child and young person

Proposed legislation and *Curriculum for Wales Guidance* both make clear that all planned learning should support children and young people to engage with and make further progress towards accomplishing the Four Purposes. This approach differs from many curricula across the world, which may be described as content-driven²⁶. The vision which informs the development of each school's curriculum will be based on the development and realisation of the Four Purposes; developing this vision underpins all aspects of school curriculum planning.

This commitment is followed through in the clear advice provided in the Journey to 2022:

The Curriculum for Wales guidance sets out that schools and practitioners should develop a vision for their curriculum. This process is critical to developing a genuinely transformational curriculum: schools should not use current content or provision as a starting point or seek to retrofit it to satisfy the new curriculum requirements²⁷.

Schools and practitioners should develop a vision for their purpose-led curriculum which will underpin:

- all stages of the school curriculum planning process (school, class and lesson planning)
- all learning contexts (classroom, life of the school, formal and informal beyond the classroom and school)
- all aspects of the curriculum (Areas of Learning and Experience, mandatory skills frameworks, cross-curricular themes)
- all aspects of learning, processes as well as achievement.

Engaging in depth with the implications of the Four Purposes may be challenging; it is, however, necessary to prevent the terms being employed superficially and implications not worked through before considering more detailed curriculum planning which will be informed by this engagement. This engagement is likely to be an iterative process in which consideration of the Four Purposes is returned to at later stages of the processes curriculum planning and enactment.

Curriculum for Wales Guidance provides brief descriptors of capacities and attributes which are typically associated with each of the Four Purposes²⁸ and of the skills integral to these Purposes²⁹. These descriptors should not themselves be used to plan teaching and learning activities which are otherwise without content or context. This is partly because these brief descriptors are illustrative rather than adding up to a comprehensive list. More fundamentally, learners cannot develop these skills, capacities and attributes independently of a context; rather learners develop these through engaging in a wide range of rich learning experiences; these should be planned using the principles of progression, content, pedagogical approaches and assessment principles, inherent in the curriculum organisation and structure and developed in Curriculum for Wales Guidance. While learners should develop their awareness and understanding of the Four Purposes and associated skills, capacities and attributes, they will do so effectively only as they develop the full range of

²⁶ The contrast between the verbs in the phrases 'purpose-led' and 'content-driven' is intended, though perhaps prejudiced the former allows and encourages difference, the latter suggests some level of compulsion.

²⁷ The Journey to 2022 p. 4

²⁸ Curriculum for Wales Guidance pp 23-25

²⁹ Curriculum for Wales Guidance pp. 25-26

knowledge and understanding, skills, attributes and capacities included in the Curriculum expectations.

There is a range of wider policy requirements, often statutory, to which schools and those responsible for their management require to have regard when designing their curriculum and planning learning experiences; these include, as examples, the Well-Being of Future Generations (Wales) Act 2015, the United Nations Convention on the Rights of the Child, the Equality Act 2010, §20 (the duty to make 'adjustments for disabled persons') and the Equality Act 2010 §1.

§1. Public sector duty regarding socio-economic inequalities: (1) An authority to which this section applies must, when making decisions of a strategic nature about how to exercise its functions, have due regard to the desirability of exercising them in a way that is designed to reduce the inequalities of outcome which result from socio-economic disadvantage.

These may impact on curriculum planning in different ways which should be recognised in support resources and materials. Thus,

- aspects of the Well-Being of Future Generations (Wales) Act and accompanying guidance may influence selection of content in several of the six Areas of Learning and Experience
- observation of the UNCRC may influence the means by which the learners of all ages are involved in planning learning and sharing responsibility for assessment
- the requirements of the Equality Act may require material to be available in more than one format
- consideration of the Equality Act §1 duty may lead to developing understanding of how school curriculum planning can contribute to countering discrimination and to reducing socio-economic disadvantage.

It is important that consideration of such policies is not treated as an add-on or marginal but is integrated into school curriculum planning.

Recommendations: Section 5

- 9. Resources and materials designed to support the development of Curriculum for Wales should:
 - ensure that all involved engage fully with the rationale for the purpose-led curriculum before moving into detailed planning
 - support schools and practitioners to ensure that the realisation of the Four Purposes is clearly, consistently and explicitly integrated into their curriculum planning processes and thus reflected ultimately in all plans for learning
 - recognise that the Four Purposes are not themselves directly 'taught' independently of other aspects of the curriculum.
- 10. Resources should recognise and make clear, wherever appropriate, how the requirements of other policies, relevant to schools and learners, can be addressed in the processes of planning a curriculum designed to ensure progression towards the Four Purposes.

6. Structure and organisation of Curriculum for Wales

The structure of Curriculum for Wales is fundamentally simple – Purposes, Areas of Learning and Experience, What Matters statements, Progression Steps, Descriptions of Learning, all clearly related to one another. To these must be added the skills, elements and themes which are best described as cross-curricular. The curriculum structure is designed to allow schools and practitioners enhanced freedom and responsibility in planning curriculum content, pedagogy and assessment which both supports learners to develop further towards the Four Purposes and responds to school contexts and individual needs. The simple structure and the enhancement of autonomy and responsibility may together be perceived by practitioners as very different from the structures and culture to which they have been accustomed. This must be recognised explicitly and addressed by those creating resources and support for schools and practitioners in Wales.

The Four Purposes underpin the curriculum

Underpinning the whole Framework are the Four Purposes; as indicated in Section 5, they cannot be considered as another discrete set of organisers, to be addressed separately from the Areas of Learning and Experience and What Matters statements. Rather they inform the development of the Curriculum at all levels of the education system (national guidance, school, classroom) and at all stages of the processes of enactment (planning, practice, review). Support for coherent curriculum planning at the level of the school and classroom must recognise this.

 The Areas of Learning and Experience and the What Matters statements identify essential knowledge and understanding, skills, and attributes and capacities³⁰

The six Areas of Learning and Experience and the statements of What Matters within each Area have been developed by bringing together a wide range of evidence from policy, practice and research to:

- identify the fundamental concepts and skills from established fields of study
- develop an informed understanding of what is of importance and will continue to be of importance in the lives of all children and young people in Wales
- develop understanding of progression in learning
- theories and practice of pedagogy and assessment.

As a result these sets of statements embody progression in learning both of the fundamental concepts within established subjects and fields and of the capacities and skills which support learners in enacting, now and in the future, the Four Purposes required to participate fully now and in the future in the life of a 21st century democratic country. As a result Curriculum for Wales differs from many curricula in that an Area of Learning and Experience may encompass familiar established disciplines in new ways. While this may at times be challenging, it provides additional opportunities for schools to plan progression, including making use, when appropriate, of meaningful links across different disciplines both within an Area of Learning and Experience and across two or more Areas.

³⁰ Section 10 considers matters which may arise within particular Areas of Learning and Experience.

Some, within and beyond the education system, may perceive this move from well-established discipline-related organisers as down-playing the importance of knowledge and understanding (the 'what' of learning) at the expense of excessively focusing on the 'how', the processes, of learning. Authors, such as Lindsay Paterson and Michael Young, have argued strongly for the importance of traditional subject knowledge as a basis of greater equity³¹. Terry Wrigley has countered this with a critique of the traditional concept of powerful knowledge, arguing that all too often what is prescribed as powerful knowledge is in fact knowledge that supports the status quo³². This argument is supported by empirical work such as a recently published study which argues for the importance of distinguishing and valuing genuinely empowering knowledge³³. The structure of Curriculum for Wales moves towards a resolution of this complex and contentious issue and towards addressing the related and equally vexed distinction in status between 'academic' and 'vocational' education.

The statements of What Matters and the Descriptions of Learning make clear the importance of building progression in powerful concepts within the recognised academic disciplines; this is supported by further advice in the sections in the *Curriculum for Wales Guidance* on 'Designing your curriculum' specific to each Area of Learning and Experience. In so doing, the Curriculum makes progression in powerful learning more transparent to all, recognises the importance of learner motivation and engagement, supports learners in developing their capacity for further learning and provides the basis for lifelong development. It is helpful to bear in mind the conclusions developed by Sally Power and her colleagues, including the need to provide sufficient support to schools and practitioners as they develop their thinking and practice in this new context³⁴.

The Descriptions of Learning support the development of a variety of learning pathways³⁵

The Descriptions of Learning across the five Progression Steps provide guidance on how learners should progress within each statement of What Matters. They provide an inclusive route map of learning which allows for different pathways to be developed as learners progress towards the Four Purposes. They thus differ from detailed statements of standards to be applied to all learners at specific stages which are typical of many curricula. This difference is reflected in the choice of the phrase 'Descriptions of Learning', which was determined after extensive consideration in which it was powerfully argued that the phrase 'Achievement Outcomes' used in *Successful Futures*³⁶ could be too readily misinterpreted. This latter phrase is in many curricula associated with the prescription of narrowly specified learning outcomes which encourage curriculum coverage at the expense of the learning in depth required to meet the aspirations of Curriculum for Wales.

³¹ Paterson, L. (2018) Scotland's curriculum for excellence: The betrayal of a whole generation, LSE Blog. Available online at: https://blogs.lse.ac.uk/politicsandpolicy/curriculum-for-excellence/ (accessed 27/02/2021); Young, M. (2010) The future of education in a knowledge society: The radical case for a subject-based curriculum, *Journal of the Pacific Circle Consortium for Education*, 22(1), 21–32.

³² Wrigley, T. (2020). Learning in a time of cholera: Imagining a future for public education *European Educational Research Journal (Online First)* https://journals.sagepub.com/doi/10.1177/1474904120977968 (accessed 27/02/2021)

³³ Friedman, S. & Laurison, D. (2020). *The Class Ceiling* Bristol: The Policy Press.

³⁴ Power, S., Newton, N. & Taylor, C. (2020) 'Successful futures' for all in Wales? The challenges of curriculum reform for addressing educational inequalities *The Curriculum Journal* 31(2), pp. 317–333

³⁵ Section 7 provides further consideration of the development of pathways within a school's curriculum to plan learning experiences

³⁶ Donaldson, G. (2015) Successful Futures. Cardiff: Welsh Government

These Descriptions of Learning are not designed as stand-alone tasks, activities or assessment criteria. They are framed broadly so that they can sustain learning over a series of years³⁷. In this way they permit the development of different pathways designed to allow for the individual needs of learners and/or specific aspects of the school context.

Descriptions of Learning are not intended to be broken down into smaller steps to be attained at successive fixed points in time (e.g. beginning, developing, confident) or to be graded like steps in a ladder (e.g. does not fully meet..., meets basic expectations..., achieves beyond typical expectations...). Such small steps are often intended for prescriptive use by all learners who are expected to follow the same path at the same pace. Such an approach would fail to recognise the importance of developing pathways appropriate to context and to the needs of individual learners. There is also considerable evidence that a reliance on smaller steps in this way is associated with less coherent and more superficial learning at the expense of depth, encourages a climate of performativity and leads to descriptions of activity rather than learning³⁸.

Progression Steps act as reference points to inform a longer term view of progression³⁹

The Descriptions of Learning are organised in five Progression Steps which provide reference points to review learners' progression, both processes and achievements. While the learning continuum is common to all learners, the pace of progress through it may differ between learners, across different aspects of learning for the same learner and at different times in the learner's life. As a result, the Progression Steps relate only broadly to age or stage and should be used only to inform further learning rather than to merely judge or grade past achievement.

Cross-curricular elements

There is a risk that the various cross-curricular elements included in Curriculum for Wales may be perceived as standing outside this structure. To counter this risk, schools and practitioners, as they plan the school's curriculum and learning experiences, should explicitly integrate into these opportunities for the development of mandatory and integral skills, embedding these opportunities clearly within learning intentions and success criteria. In the case of the mandatory skills progression in the development of these will be supported by the use of the relevant national frameworks.

Progression in the mandatory curriculum components and other cross-curricular elements should similarly be integrated into the planning of the curriculum, learning intentions and success criteria. As is considered later⁴⁰, it is essential to integrate pedagogical and assessment approaches into all school curriculum planning processes: this will be of evident importance in the development of cross-curricular themes. While many aspects of the mandatory curriculum components can be

³⁷ Curriculum for Wales Guidance p. 35

³⁸ See e.g. Heritage, M. (2008). *Learning progressions: Supporting instruction and formative assessment*. Council of Chief State School Officers (CCSSO); Mosher, F. & Heritage, M. (2017) *A Hitchhiker's Guide to Thinking about Literacy, Learning Progressions, and Instruction*. CPRE Research Report #RR 2017/2. Philadelphia: Consortium for Policy Research in Education; Pellegrino, J. W. (2017). The two disciplines problem – 'it's like Déjà vu all over again!' *Assessment in Education: Principles, Policy and Practice*, 24:3, 359-368;

³⁹ Section 8 includes consideration of how the Progression Steps may be employed to support assessment.

⁴⁰ See Section 7.

readily related to the most obviously relevant Areas of Learning and Experience, all practitioners should give these due consideration.

None of these various cross-curricular elements should be treated as in any sense 'add-ons' to be considered after completing curriculum planning based on the Areas of Learning and Experience or as marginal to be merely slotted into isolated learning experiences.

The curriculum structure is inclusive

Curriculum for Wales is an inclusive curriculum in that it is designed for all learners. The Four Purposes of Curriculum for Wales provide a clear statement of the nation's vision and aspirations for all learners; the curriculum organisation (Areas of Learning and Experience, What Matters statements, Descriptions of Learning, Progression Steps) provides a route map, common to all learners, towards this goal; the concept of progression⁴¹ and assessment designed to support progression⁴² will then inform the planning of individual pathways and journeys within this common route map.

This purpose-driven curriculum recognises that learning is rarely linear; the *Curriculum for Wales Guidance* makes frequent references such as the need for

space for a variety of diversion, repetition and reflection⁴³

a variety of diversions, stops and spurts in a learner's journey⁴⁴.

The Guidance further makes clear that the Curriculum nationally and in each school reflects

Wales, its cultural heritage and diversity, its languages and the values, histories and traditions of its communities and all of its people⁴⁵

the diversity of perspectives, values and identities which shape your locality and Wales⁴⁶

Curriculum for Wales is also inclusive in its recognition that learning can and does take place outside the classroom and learners can draw on this within the classroom. Children and young people learn not only in activities planned within the regular timetable in the school's classrooms, workshops, sports halls and studios but also through their participation in the wide range of other experiences organised by their school, sometimes within the school, sometimes in association with other providers outside the school, sometimes in the local community. Their learning extends further beyond this to all the contexts in which they live and have their being – the home, the communities in which they take part, the peer group – and such learning should be recognised as valuable. While the right of the child or young person to privacy must be safeguarded, this curriculum structure affords opportunities for progression arising from learning in a range of contexts to be recognised and built on.

Addressing these factors, separately and/or together, implies the need for schools to have the space to plan a range of different pathways within the route map to the common destination. The

⁴¹ See Section 7 for detailed consideration of progression.

⁴² See Section 8 for detailed consideration of implications for progression.

⁴³ Curriculum for Wales Guidance p. 8

⁴⁴ Curriculum for Wales Guidance p. 230

⁴⁵ Curriculum for Wales Guidance p. 30

⁴⁶ Curriculum for Wales Guidance p. 21

curriculum structure, when allied to the employment of understandings of progression to support each learner to build on their learning to date, ensures that this space is available. The planned pathways (and consequent learning intentions and success criteria) can recognise both the specific nature of local contexts and individual interests, strengths and specific needs for support.

Recommendations: Section 6

- 11. Resources and materials designed to support the development of Curriculum for Wales should support schools and practitioners as they plan the school's curriculum to develop and make use of their understanding that:
 - the Four Purposes underpin all aspects of the curriculum and provide coherence for planning, for practice and for the experience of learners
 - the Four Purposes are developed through curriculum and lesson planning which selects content, pedagogical approaches and assessment activities which permit learners to display the attributes and capacities required by the Four Purposes and which promote further progression towards them
 - there is no one route to developing the Four Purposes but rather a multiplicity of pathways which schools and practitioners can develop within the curriculum structure.
- 12. Support will be welcome which develops the capacity of schools and practitioners to plan progression in learning of concepts, skills and attributes within and across What Matters statements and Areas of Learning and Experience and develops practitioners' understanding of the practices of meaningful multidisciplinary and interdisciplinary learning.
- 13. Resources and materials designed to support the development of Curriculum for Wales should:
 - employ the term 'Descriptions of Learning' in full alignment with the use established in Curriculum for Wales and avoid, purposefully or accidentally, equating an understanding of this term with that of achievement outcomes in other curricular models
 - develop the capacity and professional skills required to use the Descriptions of Learning to plan the school's curriculum and avoid either over-specifying interpretation or breaking the Descriptions of Learning down into smaller steps
 - address any risk that the Progression Steps can be equated with Key Stages or any similar structure associated with prescriptive standards
 - support the integration of planning of progression in the mandatory curriculum components, the mandatory cross-curricular skills frameworks and integral skills in the planning of learning and progression through the structure of Areas of Learning and Experience and statements of What Matters.
- 14. Support resources should develop the capacity of schools and practitioners to plan curriculum pathways and develop learning intentions and experiences which:
 - recognise and make effective use of the local context
 - support each learner to build on prior learning
 - recognise learning from participation in all aspects of the school life and ethos
 - appropriately value learning that takes place beyond the school
 - provide support, where needed, for individual learners.

7. Progression in learning, rather than coverage of content, is at the heart of Curriculum for Wales and informs its structure

A clear concept of progression underpins Curriculum for Wales; the importance of this concept is developed in the section in the *Guidance* headed: 'Progression and assessment at the heart of curriculum design'⁴⁷. Understanding of progression requires a deep shift in thinking away from delivering content towards a focus on how learning, both processes and outcomes, develops over time for different young people in different ways. As noted in Section 6, the Descriptions of Learning provide a big picture of progression through the learning of essential concepts and skills which provides at each step the foundations for further learning. Making use of this route map schools, practitioners and learners will be able to identify and plan different pathways to support learners in their progression towards the Four Purposes; these pathways will include finer grained descriptions of progression which describe learning over a relatively short period.

– What does progression mean in Curriculum for Wales?

The concept of progression in Curriculum for Wales allows the nation, the education system, schools and practitioners to realise national aspirations for children and young people while simultaneously recognising, indeed celebrating the differences and diversity of individuals, communities and schools. The means of carrying out this challenging continuing process is through the planning of learning experiences which support each learner's progression in developing powerful knowledge in all areas of the curriculum as they enact and progress towards the Four Purposes⁴⁸. In this context, progression is more than a narrow passage through a series of discrete, perhaps disjointed, activities designed primarily to afford coverage of content; rather, progression is defined in terms of depth and of increasing sophistication and application of learning in new and diverse contexts:

Progression should be supported through 'deep' learning. Each description of learning is designed to support increasing depth and sophistication of learning over time. This allows: space for a variety of diversion, repetition and reflection as learners' thinking develops over time to new levels of sophistication. They are also designed to be considered through a range of contexts...

...Together, the principles of progression and the descriptions of learning are intended to guide the development of a curriculum which reflects appropriate progression. Learners' progress can then be identified through assessment, and allows practitioners to plan learning and teaching⁴⁹.

This approach implies that those planning the curriculum at school and classroom level cannot restrict themselves to selecting content (Descriptions of Learning); rather they must make use of the Principles of Progression⁵⁰ to develop their skills in integrating content, pedagogy and assessment to promote progression which reflects this breadth of vision. It is implicit that, in addition to developing deep and sophisticated conceptual development, progression should also be apparent in the growth of each learner's capacity for learning, including their confidence and well-being.

Understanding how learners progress is critical to learning and teaching and should inform curriculum design, classroom planning and assessment which enables learners to progress in relation

⁴⁷ Curriculum for Wales Guidance p. 8

⁴⁸ See Section 7 above for related discussion.

⁴⁹ Curriculum for Wales Guidance p. 8

 $^{^{50}}$ Curriculum for Wales Guidance p.28-30. The importance of these Principles is further considered below.

to the Four Purposes. Research carried out within the CAMAU project provided evidence that describing learner progression can be a challenging task for many practitioners, at least initially: there was a tendency to slip over into providing accounts of tasks completed and/or not relating immediate improvement in learning to longer term views of progression. It was, however, very evident that collaborative learning with appropriate support over time can address this challenge⁵¹.

Deepening understanding of progression on the part of all is informed through on-going engagement with research, policy and practice in and beyond Wales and the use of this enhanced understanding to inform critical reflection on learning progression in the classroom. As practitioners plan and carry out assessment to inform future learning, they are able to draw on their developing understandings of progression in the relevant curricular areas and on their enhanced skills to articulate and make use of detailed evidence of learning, both processes and outcomes⁵².

These new ways of working may have significant implications which require consideration of: e.g. for school timetabling or for staff responsibilities. Any new practical arrangements should be a consequence of informed and reflective development and planning not a driver of superficial 'change for change sake'.

– How does the curriculum structure support progression?

As noted in the last section, the Four Purposes are embedded within all aspects of the structure of the Curriculum for Wales, not only the six Areas of Learning and Experience, the statements of What Matters and the Descriptions of Learning but also the mandatory curriculum elements and the mandatory skills frameworks. The Areas of Learning and Experience and the statements of What Matters describe the essential concepts, skills and capacities which learners in Wales require to develop as they progress towards and further realise the Four Purposes. The Descriptions of Learning provide guidance on how learners can effectively progress within each statement of What Matters. This structure provides an inclusive route map of learning within which progression in learning in the other mandatory aspects of the curriculum can be incorporated.

Making use of this route map schools, practitioners and learners will, as noted above, be able to identify and plan different pathways to support learners in their progression towards the Four Purposes, thus recognising and celebrating difference and diversity, individual, community and institutional.

There are no shortcuts to curriculum planning to develop progression in learning for all: curriculum planning of this nature involves informed reflective consideration by all participants. It cannot be assumed that, even if the language of Curriculum for Wales is embedded in discourse, this necessarily implies that there are always shared understandings of terms. Developing shared understanding requires participants to have opportunities to think through key terms and their implications for their practice. This reflective thinking will involve discussion within and across the different communities with which they may be involved e.g. among practitioners, governors, parents and learners within a school or among practitioners across schools in a consortium or among

⁵¹ So Far So Good pp. 19, 23, 62-64

⁵² This is further considered in Section 8 below.

members of an interest based regional or national network. A participant may well be a member of several such communities.

Using the Principles of Progression

Understanding how learners progress is critical to learning and teaching and should inform curriculum design, classroom planning and assessment. The *Curriculum for Wales Guidance* provides a clear brief statement of five Principles of Progression which encompass the range of progression promoted by this curriculum and which will be used to inform planning⁵³. These principles are subsequently elaborated for each of the six Areas of Learning and Experience in ways which recognise the features particular to each. These five principles are summarised under the headings:

- increasing breadth and depth of knowledge
- deepening understanding of the ideas and disciplines within the Areas
- refinement and growing sophistication in the use and application of skills
- making connections and transferring learning into new contexts
- increasing effectiveness as a learner.

These principles apply at all stages of learning and in all aspects of learning. Building capacity in understanding and use of these principles is likely to require considerable support. The first three of these principles may look more familiar and thus be more readily considered and adopted by practitioners at the expense of affording the other two, which may be less familiar both to practitioners and to some of those who wish to develop support resources, adequate consideration. This would be a mistaken approach: progression in the processes of learning is as important as progression in terms of content.

In the fourth of these principles, it may be noted that 'new contexts' may include contexts provided:

- within the classroom (e.g. digital communication with speakers of an international language)
- in planning across What Matters statements or Areas of Learning and Experience (e.g. application of knowledge and skills in use of statistics in Humanities)
- in contexts provided by the life of the school beyond the classroom (e.g. use of design thinking and skills in providing play equipment for younger children)
- in authentic contexts beyond the school, including those selected by the learner.

None of these opportunities should be considered as occasional enrichment but rather as essential components of support for progression.

The *Curriculum for Wales Guidance* provides helpful initial support for the development of understanding and use of these Principles through the elaboration of these generic statements more specifically for each of the Areas of Learning and Experience. This should not lead to any assumption that the Principles of Progression are not equally applicable to progression in the mandatory skills and cross-curriculum elements.

As further support resources and materials are developed it will be important that these support reflective thinking in the context within which practitioners are working. Illustrations of how these principles have been developed into practice in other contexts or of how learners have

⁵³ Curriculum for Wales Guidance p.28-30

demonstrated progression across these principles in other contexts may be used to stimulate and inform critical thinking but should not be presented as models to be uncritically adopted.

From high level descriptions of learning to finer grained descriptions of progression

The CAMAU team, reviewing a wide range of research, confirmed that progression can be described at two distinct levels, sometimes described in terms of 'granularity': a coarse grained or high level and a fine grained or more detailed level⁵⁴. Within the structure of Curriculum for Wales the Descriptions of Learning provide the high level statements; planning at school and classroom level will develop the finer grained descriptions of progression which will inform shorter term learning plans. It is to be expected that developing fine grained descriptions of progression which recognise the local context and individual needs and prior learning may on occasion be perceived as challenging; this will be particularly so during the period of change as practitioners move from the use of detailed prescribed statements of standards.

As already noted, Curriculum for Wales recognises that learners will vary in the pace at which they make progress and that there may be times when learners pause and reflect, follow a diversion or retrace their steps over ground already covered; they may travel at different paces in different areas of learning or at different stages. Again as already noted, Curriculum for Wales recognises that learners' progression may be developed through learning beyond the classroom and the school. This approach is not consistent with any model of planning which adopts a mechanical approach in which the Descriptions of Learning are simply broken down into smaller more detailed statements; these are then provided for use by practitioners without reflection as a form of finer grained statements of progression. Apart from the failure to recognise the local context and the needs of individual learner, this approach would lead to a reversion to using lists of objectives to be ticked off and prevent critical engagement with the principles that underpin Curriculum for Wales. Development of understanding of the concept of progression in Curriculum for Wales and its importance for guiding learning would be lost.

In some areas of the curriculum, notably in aspects of Humanities, in Mathematics and Numeracy and in Science and Technology, research has identified or developed a number of learning trajectories which have built on research and practice to describe progression within a topic over a limited period of time⁵⁵; the value of these can be recognised as practitioners locate them critically within both their own context and the curriculum structure.

⁵⁴ Key fundamental research includes Heritage, M. (2008) *Learning progressions: Supporting instruction and formative assessment*. Council of Chief State School Officers (CCSSO) and Mosher, F. & Heritage, M. (2017) *A Hitchhiker's Guide to Thinking about Literacy, Learning Progressions, and Instruction*. CPRE Research Report #RR 2017/2. Philadelphia: Consortium for Policy Research in Education.

There are references to this concept within specific curricular areas e.g. Language: Shrubshall, P. (1997) Narrative, Argument and Literacy: A Comparative Study of the Narrative Discourse Development of Monolingual and Bilingual 5-10-Year-Old Learners, *Journal of Multilingual and Multicultural Development*, 18:5, 402-421;

Geography: Muñiz Solari, O., Solem, M. & Boehm, R. (eds.) (2017) *Learning Progressions in Geography Education: International Perspectives*. Cham (ZG): Springer

⁵⁵ Learning about Progression passim in the relevant sections on research related to each Area of Learning and Experience. several of these studies are referenced in footnotes in Section 10.

Integrated planning of content, pedagogy and assessment

Curriculum for Wales is built on an understanding that content selection, pedagogical approaches and assessment activities all contribute to planning learning experiences that support progression in learning.

A school's curriculum must cover all of the statements of what matters from age 3 to 16, providing engagement with their key concepts ... Schools and practitioners must use the statements of what matters to guide the development of curriculum content...⁵⁶

The overarching purpose of assessment is to support every learner to make progress. When planning and delivering learning experiences, schools and practitioners should be clear about the specific role of each assessment being undertaken and what the understanding gained from assessment will be used for and why⁵⁷.

Pedagogy is at the heart of curriculum. In designing their curriculum, schools should consider the pedagogical approaches they will need to employ to support learners in realising the four purposes. Schools should seek to develop a strong vision of learning and teaching which considers the 'why' and 'how' as well as the 'what'⁵⁸.

It follows from this that the planning process at all levels should determine content, pedagogy and assessment in an integrated planning process⁵⁹. An integrated approach is a necessary condition for ensuring that the Principles of Progression are fully incorporated into the learning experiences of all. An integrated approach supports learners in understanding both what they have achieved in their learning and how they have achieved this. It is worth bearing in mind that the reality for learners is their experience and perception of curriculum content, pedagogy and assessment as integrated in the ongoing all-encompassing processes of the classroom. None of these three fundamental aspects can be treated as an add-on or extra to be determined independently of the others.

Progression and content

The statements of What Matters and supporting material within the *Curriculum for Wales Guidance* recognise the importance and value of content described in terms of concepts, knowledge, skills and attributes. Carefully planned selection of appropriate curricular content is one key aspect, though not the only one, of planning learning experiences which support coherent progression.

Schools and practitioners will select content that supports learning progression aligned with the development of the fundamental concepts which are embedded in the descriptions of the six Areas of Learning and Experience and in the statements of What Matters. Content is not limited to conceptual development: it encompasses also the development of the skills and capacities which are similarly embedded in these statements. In so doing, schools and practitioners may select content which brings together the development of knowledge and understanding, skills and capacities from

⁵⁶ Curriculum for Wales Guidance p. 35

⁵⁷ Curriculum for Wales Guidance p. 31

⁵⁸ Curriculum for Wales Guidance p. 50

⁵⁹ cf. Black, P., Wilson, M. & Yao, S. Y. (2011) Road maps for learning: A guide to the navigation of learning progressions. *Measurement: Interdisciplinary Research & Perspective*, 9:2-3, 71-123; Wiliam, D. (2017) Assessment and learning: some reflections. *Assessment in Education: Principles, Policy & Practice*. 24:3, 394-403; Wyse, D., Hayward, L. & Pandya, J. (2015) *The SAGE Handbook of Curriculum, Pedagogy and Assessment*. London: Sage

different statements of What Matters or Areas of Learning and Experience. The sections on 'Designing your curriculum' for each of six Areas illustrates how such meaningful links can be made to promote coherence in learning.

Schools and practitioners will select content which permits them to embed in learning experiences the mandatory cross-curricular skills, the skills integral to the Four Purposes and relevant aspects of the mandatory curricular elements and thus support. The selection of content will reflect and illuminate relevant aspects of school, national and international contexts and relevant cross-cutting themes and thus support learners in developing their knowledge and understanding of the importance of these.

Progression and pedagogy

Successful Futures focuses on the importance of purpose and context in determining pedagogy rather than defining pedagogy in terms of a set of recommended techniques or methods:

Pedagogy is about more than 'teaching' in the narrow sense of methods used in the classroom. It represents the considered selection of those methods in light of the purposes of the curriculum and the needs and developmental stage of the children and young people⁶⁰.

This understanding of pedagogy is developed within the Curriculum for Wales Guidance which identifies twelve pedagogical principles aligned with the values and aspirations which underpin the curriculum⁶¹. These pedagogical principles do not form a set of discrete techniques to be applied without regard to their relevance to the immediate context, the concepts or skills being developed and the needs of learners. Rather, these twelve principles should be used holistically to inform and review the planning of pedagogical approaches which will contribute to providing learning experiences which are coherent, engaging and challenging and effectively promote progression.

The Principles of Progression and the pedagogical principles are mutually interdependent in supporting planning which is responsive to context. As learners progress in terms of increasing the breadth and depth of their knowledge, of deepening their understanding of ideas and disciplines and of refining their use and application of skills, they will benefit from participating in learning experiences which employ a blend of pedagogical approaches which engage them actively in planning and reviewing their learning and support them in building on previous knowledge and experience, solving problems and applying their learning in new and challenging contexts. As they make connections and transfer learning into new contexts, pedagogical approaches will be selected that make full use of authentic contexts to provide opportunities to promote progression in learning within and across Areas and in the cross-curricular themes of all types. Learning experiences which develop learner effectiveness will require pedagogical approaches which encourage learners to take increasing responsibility for their own learning, develop self-assessment skills, support social and emotional development and encourage collaboration.

As schools and practitioners determine an area and topic of learning, identify prior relevant learning, provide opportunities for authentic learning and recognise learner strengths and areas for further development, they will use these as factors to inform decisions about the most appropriate

⁶⁰ Successful Futures p. 10

⁶¹ Curriculum for Wales Guidance p. 50

pedagogical practices to be adopted in any particular context. Practitioners and learners can then develop learning intentions which embody the pedagogical approaches appropriate to the topic, knowledge and understanding and skills which it is intended learners develop. Pedagogical approaches are likely to be characterised as those which:

- recognise prior learning
- engage and challenge learners
- make use of authentic contexts (locations, resources, ...)
- permit personalisation and appropriate choice
- promote learner autonomy
- recognise that learning is social as well as individual
- make learning visible to all.⁶²

Progression and assessment⁶³

The relationship between progression and assessment in the processes of school curriculum planning is fully recognised throughout the Curriculum for Wales Guidance and summed up in the following:

Learner progression along a continuum of learning from ages 3 to 16 is central to Curriculum for Wales. Assessment plays a fundamental role in enabling each individual learner to make progress at an appropriate pace, ensuring they are supported and challenged accordingly⁶⁴.

The most fundamental of the six key principles⁶⁵ underpinning assessment policy and practice is simply stated:

The purpose of assessment is to support the progression of each individual learner in relation to the 3-16 curriculum.

Curriculum planning must clearly integrate the planning of assessment with the planning of content and pedagogy: another of these six key principles underpinning assessment clarifies that:

Assessment is an ongoing process which is indistinguishable from learning and teaching.

Within this, assessment is most appropriately conceived as a continuing process, ongoing through the daily practices of the classroom, rather than as a series of one-off events, experienced sporadically within or outside the classroom. As practitioners plan learning and teaching that encourages depth and breadth of understanding, so also must the learning intentions and success criteria developed clearly embed depth and breadth rather than reflect a listing of lower level aims.

Learning, progression and the learner

A further principle underpinning assessment in Curriculum for Wales focuses on the role of the learner in assessment in particular and learning in general:

⁶² There are interesting summaries of the characteristics of such approaches at e.g. https://www.ronritchhart.com/info-graphics and https://www.oecd.org/education/ceri/03%20Paul%20Collard CCE UK.pdf

⁶³ This is further developed in Section 8.

⁶⁴ Curriculum for Wales Guidance p. 221

⁶⁵ Curriculum for Wales Guidance p. 223 'Our key principles'

Learners are at the heart of assessment and should be supported to become active participants in the learning process.

Achieving progression in learning, as understood in Curriculum for Wales, requires that learners contribute to and participate in the processes of learning, from planning through activity to review and reflection. This is not only immediately beneficial to their learning but also addresses the recognition of the right of the child or young person to be consulted on all matters of interest⁶⁶. In this context, meaningful involvement requires that they are able to articulate what they have achieved in their learning and how they have achieved this; similarly, they need to be able to understand how they can now progress further in their learning. This implies that at all stages they develop the capacity to identify, articulate to themselves, review and discuss with others evidence of their progression in learning and respond actively to feedback on their learning⁶⁷. Further, it implies that classroom practice regularly affords them opportunities to identify possible next steps in their learning.

To support progression, practitioners develop learning intentions which make clear what it is intended that a learner should know, understand and be able to do by the end of a learning experience. Involving learners in developing learning intentions contributes to their using and developing the capacities integral to the Four Purposes and to their becoming ever more independent learners who take responsibility for their learning. Involving learners in this way also helps them understand what progression in learning looks like, both in terms of content and in terms of the processes of learning. Learning intentions can then be used by practitioners and learners to generate success criteria, which inform all involved of the variety and characteristics of evidence of learning that will justify decisions on how well and in what the ways these learning intentions have been achieved. This process provides further opportunities for learners to develop the capacity to articulate and discuss what progression in learning looks like. These processes afford opportunities to recognise the needs, interests and prior learning both of the group and of individuals within it.

Support may well be valuable for schools and practitioners as they develop their capacity to use the statements of What Matters and Descriptions of Learning to support learners in developing their understanding of progression beyond the immediate future. One aspect of doing so is the development of skills in creating rich learning intentions which extend beyond identifying the immediately evident aspects of learning to encompass the fundamental ideas and skills embodied in these statements. Rich learning intentions of this nature which promote depth in learning will help prevent a fragmented, incoherent and superficial experience of progression.

Involving learners through such planning processes provides space and opportunity for the recognition of learning which has taken place beyond the classroom and which may inform and support further learning. This needs to be carefully managed. The rights of children and young people include the right to privacy; the legal and moral duty to respect this privacy must be recognised in all practice⁶⁸. More generally, learners as they grow older need space in their lives in

⁶⁶ United Nations (1989). *Convention on the Rights of the Child.* United Nations Treaty Series 1577 Article 12(1) 'States Parties shall assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child, the views of the child being given due weight in accordance with the age and maturity of the child.'

⁶⁷ Curriculum for Wales Guidance pp. 221 provides further advice on the involvement of learners through assessment practice.

⁶⁸ As noted previously, schools will have due regard to the UNCRC: United Nations (1989). *Convention on the Rights of the Child.* United Nations Treaty Series 1577

which, with growing independence, they can explore and develop their relationships with others, build their capacity for resilience, develop their emotional literacy and their understanding of risk. Clumsy approaches to recognising learning beyond the classroom, whether in the life of the school or through participation in activities unrelated to the school, may be perceived as reducing the pleasure of participation. That said, the processes of recognition of a range of learning and of the means by which it has been developed provide further opportunities for all involved (practitioners and learners) to develop their understandings of progression, discuss and review progression and plan further learning.

Recommendations: Section 7

- 15. Support for development and engagement processes should provide opportunities for informed discussions amongst policy makers and practitioners to enable them to explore and to discuss the inter-relationship of curriculum, pedagogy and assessment in promoting progression.
- 16. It is necessary to build capacity, systemic and individual, to ensure a shared understanding of fundamental principles and structures as schools take forward planning the school's curriculum and classroom learning experiences if this is to fully realise the aspirations of Curriculum for Wales.
- 17. Resources and materials designed to support the development of Curriculum for Wales should:
 - develop practitioners' capacity to articulate their understanding of progression in learning by considering how detailed evidence of learning relates to the Principles of Progression and the Descriptions of Learning
 - recognise that the Principles of Progression usefully inform progression in learning related to the processes of learning and to the mandatory elements and skills frameworks as well as in learning related to the Areas of Learning and Experience
 - support schools and practitioners in using the Principles of Progression to plan ongoing opportunities for learners to develop progression in the processes as well as the outcomes of their learning and the capacities and attributes embedded in the Four Purposes
 - develop the capacity of schools and practitioners' professional skills to make full use of all five Principles of Progression as they plan a curriculum and learning experiences which promote immediate and longer term progression.
- 18. Resources and materials designed to support the development of Curriculum for Wales should develop the capacity of schools and practitioners to:
 - use the route map described by the Descriptions of Learning to create progression pathways which recognise the local context and which accommodate the needs and interests of individual learners
 - develop finer grained descriptions of progression which clearly locate immediate or short term progression in a bigger picture of progression over the longer term
 - use the findings of research on the ways in which finer grained progression pathways can be integrated into the route map provided by the high level statements of the Descriptions of Learning.

- 19. Resources which effectively support schools and practitioners in planning their curriculum should recognise fully that, through integrated and coherent embedding of cross-curricular skills and themes, curriculum and lesson planning should lead to learning experiences which afford learners support to progress in all aspects of knowledge and understanding, skills and capacities included within the Curriculum.
- 20. Resources and materials designed to support the development of Curriculum for Wales should develop the capacity of schools and practitioners to integrate at all times the selection of content, pedagogy and assessment practice in curriculum and lesson planning which will create learning experiences which ensure progress in learning.
- 21. Resources and materials designed to support the development of Curriculum for Wales should develop the capacity of schools and practitioners to:
 - make use of the alignment between the twelve pedagogical principles and the five Principles of Progression in designing the school's curriculum and learning experiences
 - develop and draw on a wide repertoire of teaching and learning approaches from which to select those appropriate to the specific knowledge and understanding, skills and/or capacities which it is intended that learners are to develop.
- 22. Resources and materials designed to support the development of Curriculum for Wales should:
 - explicitly recognise and make full use of the detailed guidance afforded by the Curriculum for Wales Guidance on the relationship between assessment and progression
 - build the capacity and skills required to ensure that assessment activities are planned and used to inform learners and practitioners on the means by which learners can make progress in both the processes of learning and the outcomes of learning
 - include opportunities for developing practice which provides opportunities to involve
 learners in contributing to developing learning intentions and success criteria, using these to
 review their learning and thus actively developing their understanding of progression
 - include support for developing practice which will contribute to sharing a longer term view of progression with learners, to supporting them in locating their current progression within this and to helping them articulate this understanding.
- 23. Providers of support resources and materials should understand the complexities involved in the processes of recognising wider achievement if they are to develop fully the capacity and skills required by practitioners to involve learners in discussion of learning and progression, using evidence from beyond the classroom.
- 24. Resources designed to support the use of the Principles of Progression may employ illustrations of their realisation in practice to stimulate reflective thinking but should not prescribe solutions or provide models of practice to be imported uncritically from one context to another.

8. Assessment which promotes progression is forward facing to inform future learning rather than backward facing to judge and record attainment to date

Assessment processes perform two fundamental functions in education systems:

- judging and recording past learning
- informing progression from current to future learning.

The former employs evidence of past learning in order to judge, record and often summarily label or grade what has been learned. The results are used frequently for purposes relevant to the learner such as to certificate and publicly recognise attainment, decide entry to the next stage of learning or gain entry to employment; results may also be used to inform school accountability and improvement procedures.

The latter considers evidence of learning processes and achievements to date in order to identify and inform means of supporting the learner to successfully make further progression. This involves consideration of evidence of what has been learned and of how this has been learned in order to plan the next stage of learning and the means of achieving this.

Using assessment processes and evidence to inform progression

The *Curriculum for Wales Guidance* outlines specific roles for assessment within the overall aim of supporting individual learner progression, described under the three headings⁶⁹:

- supporting individual learners on an ongoing, day-to-day basis
- · identifying, capturing and reflecting on individual learner progress over time
- understanding group progress in order to reflect on practice.

These roles and the key principles underpinning assessment in Curriculum for Wales have implications for deciding on the evidence to be gathered, selected, reviewed and used, how to do so and who is involved in doing so.

While the first of these roles may be perceived as closest to current day-to-day classroom practice, practitioners and learners may often have to extend their understanding of the breadth of evidence which can be drawn on in the course of learning, both to demonstrate achievement and, more importantly here, to inform the next stages of learning and to place this within the context of longer term progression. They may also have to extend their understanding of the ways in which carefully directed feedback is an integral component of learning and teaching. Developing shared understandings between the practitioner and learners of the use of feedback as dialogue rather than one way messaging will be crucial if day-to-day in-class assessment is to be fully effective. It will be important to developing understanding of the underlying purpose of assessment as supporting progression in learning and to carefully select and use techniques that match the purpose rather than simply introducing new techniques. This parallels the approach to developing pedagogy considered in Section 7.

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⁶⁹ Curriculum for Wales Guidance p. 224-225

There will be occasions when it is appropriate to stand back and review learning over a longer period: the Progression Steps, key transition points and reporting to parents and carers all afford appropriate and apposite opportunities to do so but the process need not be restricted to these. Learners are entitled to understand not only how they can make further immediate or short term progression in their learning but also how their current learning fits into a bigger picture and how, in this longer term, they can build on their learning to date. This process provides a space in which more sustained dialogue, drawing on range of evidence, can take place between practitioner and learner and provides opportunities for learners to provide and draw on evidence of learning gained outside the formal structures of the classroom. This process also affords opportunities to support learners, through bringing the range of evidence of progression across the different aspects of the curriculum, to develop a coherent picture of their overall progress.

The third role must be distinguished from the blunt use of limited summative assessment information in some accountability systems. In the context of Curriculum for Wales, practitioners, with learners involved as appropriate, reflect not only on the outcomes of learning but also on the processes – on the 'why' and the 'how' as well as the 'what' – with the aim of improving learning experiences and planning not only in the short but also in the longer term. A wide range of evidence can be drawn from all stages – from planning through developing intentions and success criteria through classroom experience to evidence of achievement. This is a further powerful means of building capacity within and across schools and developing the professional understanding and skills of practitioners.

All three roles require both learners and practitioners to consider and reflect on the processes of learning and to develop their capacity to articulate, evidence and explain progression and, therefore, to discuss how it has been supported and how further progression can be supported.

To carry out all three roles a wide range of types of evidence can be drawn upon which recognise increase in breadth and depth of knowledge, deepening understanding of ideas and disciplines and refinement and growing sophistication in the use and application of skills. This range of evidence may include evidence of the authentic use of learning in a diversity of contexts and of the increasing effectiveness of the learner.

Good feedback underpins effective uses of assessment evidence. Good feedback is not unidirectional from practitioner to learner⁷⁰. Rather it involves dialogue between practitioner and learner, learner and learner, or learner and self⁷¹; this may be written or oral, synchronous or asynchronous, during or after learning in the classroom, supported by digital technology or not. Supportive dialogue provides learners with opportunities to develop their capacities as learners who can articulate and evaluate their progression in learning, drawing confidently on evidence from within and beyond the classroom. Such dialogue requires a culture in which learners feel

⁷⁰ The importance of not assuming that learners can make full use of feedback without dialogue is illustrated in the article: Van Der Kleij, F. & Adie, L. (2020). Towards effective feedback: an investigation of teachers' and students' perceptions of oral feedback in classroom practice. *Assessment in Education: Principles, Policy & Practice*, 27:3, 252-270

⁷¹ Discussion of the role of learners in assessment, including self-assessment and peer assessment is provided in Black, P. & Wiliam, D. (2009). Developing the theory of formative assessment. *Educ Asse Eval Acc* 21, 5–31 and Black, P. & Wiliam, D. (2018). Classroom assessment and pedagogy. *Assessment in Education: Principles, Policy & Practice*, 25:6, 551-575

comfortable and confident, a culture which promotes the development of the capacities embedded in the Four Principles and ultimately their well-being⁷².

This is consonant with the Welsh Government's commitment to the aspiration:

The school's vision focuses on enhancing learners' cognitive and social-emotional outcomes (including their well-being), encompasses both the present and the future, and is inspiring and motivating⁷³.

Recording and reporting assessment information

The approach to assessment developed within Curriculum for Wales has implications for recording and reporting assessment. The *Curriculum Guidance* has specific advice regarding this:

Headteachers should ensure that the information gathered on learner progression is proportionate and is only used within the school to directly support learner progression and inform teaching. It should not be used for the purposes of external accountability. It may be drawn upon to:

- inform communications and engagement activity with parents/carers
- support the transition of learners along the 3 to 16 continuum
- help practitioners and leaders develop their understanding of progression
- inform curriculum development and inform future learning and teaching
- identify where improvement and support are needed as part of the school's self-evaluation process⁷⁴.

Carrying out these purposes will be informed by shared discussion and reflection on a range of evidence. While much evidence will be generated within the classroom, learners and practitioners will be able to draw also on evidence generated elsewhere: learning outside the classroom planned in relation to classroom activity; learning related to the ethos and life of the school; informal learning; learning from personal challenge.

Discussion of examples of evidence of different types contributes to ensuring shared understandings of progression among practitioners within a school, among practitioners within an associated group of schools, among practitioners with a shared interest in different schools, between practitioners and parents and carers of the pupils from whose learning they are responsible and, of course, between practitioners and learners. This develop understanding, appropriate to Curriculum for Wales, of the concepts of validity, reliability and dependability of assessment evidence.

The types of evidence to be gathered, recorded or stored should not be determined by the use of information management systems designed to reflect other curricular philosophies or curricular arrangements in other countries. Rather information management systems should be designed to reflect the requirements of the Curriculum.

⁷² See e.g. Fletcher, A. K. (2018). Help seeking: agentic learners initiating feedback, *Educational Review*, 70:4; Vaughn, M., Premo, J., Erickson, D. & McManus, C. (2020). Student Agency in Literacy: Validation of the Student Agency Profile (StAP), *Reading Psychology*, 41:6, 533-558; Willis, J. (2011) Affiliation, autonomy and Assessment for Learning. *Assessment in Education: Principles, Policy & Practice*, 18:4

See also the paper at https://hwb.gov.wales/api/storage/88a9bd44-9410-4bbb-addc-3fb45f93ff12/learner-well-being-and-assessment-mutual-support-systems.pdf

⁷³ Developing Schools in Wales as Learning Organisations slide 3

⁷⁴ Curriculum for Wales Guidance p. 236

Using a learning portfolio to support progression

In the context of Curriculum for Wales learners have the primary responsibility for gathering, selecting and uploading evidence of their learning and progression to a learning portfolio. This evidence may well be generated both within and beyond the classroom and may include evidence from informal learning and learning from personal challenge. Carrying out this responsibility supports learners' capacity to articulate and reflect on their learning processes and achievements; reflection involves discussion with others as well as self-reflection and may be recorded as annotations to their evidence or as free-standing written or oral texts. Responsibility for the management of the folder encourages ownership by the learner of their learning with positive consequences for engagement and commitment and promotes growing autonomy and independence in learning. This use of learning portfolios brings further benefits including:

- providing support for learners as they stand back and review their learning and progression over a period of time to inform their longer term view of progression
- recognising opportunities for relating learning in one area to learning in another
- recognising opportunities for transferring learning to other situations and subjects
- making meaningful connections with prior learning and personal experiences
- drawing on the evidence in their portfolio to inform discussion in the context of reporting to parents and carers
- drawing on the evidence in their portfolio to inform discussion related to transitions.

It is important that support resources recognise the key characteristics of this provision in Wales and its differences from portfolios which primarily record activities undertaken, list tasks that have been completed, tick off lists of low-level objectives attained, simply collect examples of the learner's 'best work', or record assessment outcomes summatively⁷⁵.

Assessment and accountability

Moving to a curriculum focused on progression rather than on standards implies a significant reconsideration of the nature of assessment data and information which may be used to inform views about the quality of education in a system or in schools. If assessment information is used primarily (or, as importantly, is perceived to be used primarily) as a means of holding schools to account, there is extensive and powerful evidence from many education systems that this is likely to move the focus from learning to performance. This is the case whether the assessment methodology and the information gathered were intended to be used for purposes of accountability or whether the assessment activity was originally designed to record learners' attainment for other purposes (e.g. the award of school qualifications) and the information re-purposed for accountability. Such systems tend to focus on a selection of a few curriculum areas (typically literacy, numeracy, an international language, science) and within these on only some aspects (e.g. reading in literacy, knowledge in science). Selection of this nature usually reflects a hierarchy of status of subjects and/or the need for simplicity of assessment. The results all too often include a narrowing of the taught curriculum to focus on those areas assessed for this purpose.

⁷⁵ See forthcoming national guidance on learning portfolios.

The Welsh Government continues to review and revise evaluation and improvement arrangements so that these are aligned with the aspirations of Curriculum for Wales and, thus, support the realisation of this Curriculum. The *Curriculum for Wales Guidance* is clear:

Headteachers should ensure that the information gathered on learner progression is proportionate and is only used within the school to directly support learner progression and inform teaching. It should not be used for the purposes of external accountability⁷⁶.

It is important that all schools and practitioners are consistently supported to perceive, understand and play an active role in turning this commitment into visible practice through clear and consistent activity and messaging at all levels of the education system.

Recommendations: Section 8

- 25. Resources and materials designed to support the development of Curriculum for Wales should develop the capacity of schools and practitioners to:
 - understand the significance of the move from conceiving assessment as primarily backwards facing to judge and record past learning to forwards facing to inform further successful progression
 - build on and contribute to developing practice aligned with the three key roles to be played by assessment in Curriculum for Wales
 - develop understanding of the breadth of evidence which can be drawn on in the course of learning to demonstrate achievement of intended learning and to inform the next stages of learning
 - develop practice in assessment as on-going classroom activity which affords enhanced opportunities for the gathering and discussion of evidence of learning processes and achievements
 - develop understanding of the concepts of the validity, reliability and dependability of assessment evidence which recognise the range of types of evidence on which practitioners and learners can draw in determining validity and dependability
 - develop professional understanding and skills related to the key role of feedback and dialogue in supporting progression, including the implications of this for relationships within the classroom and the skills needed to initiate and maintain such dialogue.
- 26. The role of the learner in the production, selection, justification and presentation of evidence for use in different contexts should be recognised in support resources in accordance with the guidance provided in the assessment section of Curriculum for Wales Guidance.
- 27. Any management information system intended to support schools in Wales must be designed in full accordance with the principles that underpin the Curriculum for Wales, including those related to assessment.
- 28. Support for the development of practice related to the use of a learning portfolio should promote understanding of its prime role as a support for reflection and information to guide further learning.

⁷⁶ Curriculum for Wales Guidance p. 232

29. All organisations at all levels of the education system should take steps to ensure that all policies, support resources and materials related to any use of assessment evidence are clearly consonant with the values and principles of Curriculum for Wales and associated documentation and aligned with the guidance published by the Welsh Government to support the design of the curriculum at all levels.

9. Development of this Curriculum requires subsidiarity, co-construction and shared learning within a culture of enquiry

Subsidiarity

Subsidiarity is founded on the recognition that both the responsibility for decision making and the authority for doing so should rest as close as possible to the point of action within the national framework of expectation and support: this recognises fully the value of practice in the processes of creating, developing and enacting policy. *Successful Futures* outlines implications of this rationale:

Subsidiarity means that power stays as close as possible to the action ... subsidiarity is dependent on mutual trust and confidence which supports positive disagreement and argument. Subsidiarity is about ensuring that power is where it belongs – rather than about empowerment which involves someone in power giving something away⁷⁷.

The structure of Curriculum for Wales is designed to provide space for subsidiarity and to enhance the responsibilities and rights of schools and practitioners to address the needs of their learners: all expectations (Four Purposes, statements of What Matters, Descriptions of Learning) are expressed at a high level which ensures space for all those working with them to develop them to meet the needs of their own contexts, respecting diversity, addressing difference and making use of a range of expertise through the development of different pathways⁷⁸. The sections on 'Designing the curriculum' within the Curriculum for Wales Guidance, both the generic introductory section and those specific to each Area of Learning and Experience provide support for this process. This is a major shift from previous curriculum specification and the practice developed to align with it.

Recognising difference and diversity in this way does not imply a free-for-all: all school planning takes place within the parameters provided in the *Curriculum for Wales Guidance*. There are several aspects to how the school's curriculum can recognise, address and make use of the local context within these parameters.

The first and least radical is the use of the school context as a learning resource. While this may be most evident in the use of the local environment in the Humanities (e.g. local history, land forms, urban development, economy present and past, religious culture), it can be readily extended beyond this to include aspects of other Areas of Learning and Experience: e.g. schools in planning their curriculum can draw on the different languages used within their local context, on local literature, on the ways in which the local economy and environment may impact on health and well-being, the work of locally based artists or musicians, the use of technology, now or in the past, in local agriculture and industry. The school context also affords opportunities to provide authentic contexts for developing and applying learning: through such activities as performing before a live audience, planning and participating in a local charity event, improving an aspect of the school environment. Beyond this, recognising the school context implies that the planned curriculum can respect the diversity of the community of learners within the school and recognise the range of prior learning brought into the classroom.

⁷⁷ Successful Futures p. 99

⁷⁸ See Section 7 for further detail on this.

As noted already, this model of subsidiarity also allows space to make effective use of the range and wealth of experience and expertise which practitioners bring to their classroom activities and of the similarly extensive range and wealth of expertise which can be drawn on from the local community.

Co-construction

Co-construction has been a key feature of the development process to date in maintaining the educational integrity of Curriculum for Wales and should continue to be a key feature of school development and enactment:

[The Government should] continue the process of co-constructing policies with key stakeholders, making explicit how teachers, support staff, school leaders, local authorities, regional consortia and other stakeholders each contribute to realising the vision for the Welsh learner⁷⁹.

The Curriculum for Wales guidance, and the other guidance we are publishing alongside it, is the result of co-construction. It has been developed in Wales, by practitioners for practitioners, bringing together educational expertise and wider research and evidence⁸⁰.

The way schools approach curriculum preparation and design will be as important as what they do. In developing their approaches, co-construction will be critical... Co-construction requires people to work across traditional boundaries: between tiers of education as well as between disciplines, schools and phases, and with stakeholders beyond the education system⁸¹.

Co-construction processes recognise the importance of and provide opportunities for:

- respecting the different voices in the system
- providing space and time to think and engage together
- developing clear shared understandings of principles
- promoting critical engagement with different types of expertise
- ensuring coherence across planning
- developing new understandings of leadership at all levels.

Research provides strong evidence that change in education is sustainable and meaningful only if there is a shared commitment to developing and implementing it⁸². The Integrity Model of Change⁸³ consequently proposed on the basis of empirical evidence that there are three key aspects of integrity which necessary to the success of a complex educational initiative:

- educational integrity the manifest educational value of the initiative
- personal and professional integrity active engagement throughout all stages of the development on the part of all involved
- systemic integrity coherence of policy across the educational system with the initiative.

⁷⁹ Education Our National Vision p. 8

⁸⁰ Curriculum for Wales Guidance p. 5

⁸¹ The Journey to 2022 p. 5

⁸² The design of the CAMAU project builds on theoretical work on change e.g. Senge, P. & Scharmer, O. (2001) *Community Action Research*. In Peter Reason & Hilary Bradbury (eds.), *Handbook of Action Research*, Thousand Oaks, CA: Sage; Fullan, M. & Quinn, J. (2015) . *Coherence: the right drivers in action for schools, districts and systems*. Corwin Press; Sohmen, V. (2016). *Change Management and Theory U Leadership. International Journal of Global Business*. 9. 102-110; Hubers, M.D. (2020) Paving the way for sustainable change: Reconceptualising what it means to make educational changes that last, *Teaching and Teacher Education* 93, 1-14.

⁸³ Hayward, L. & Spencer, E. (2010). The complexities of change: formative assessment in Scotland, *Curriculum Journal*, 21:2, 161-177

This model derived from empirical research is consonant with the findings of research reported in the recent study of curriculum making in Europe⁸⁴. From a very different background (criminal justice policy), the authors of a recent research report⁸⁵ provide another very similar model of policy development:

- including future collaborators in problem selection and definition
- ensuring effective collaboration through coaching on teaming practices
- involving management at all levels to ensure that the design process is seen as part of their daily work.

This model is equally consonant with the wider thinking of writers such as Axel Honneth who argue for the importance of mutual recognition as the key feature of social justice; genuine recognition is an end in its own right and not merely an instrument for pursuing other ends⁸⁶.

Planning and realising rich and challenging learning experiences which support every learner's progression towards the Four Purposes will be supported by the participation of all those involved throughout all stages of the planning process. This serves the instrumental purpose of giving a sense of 'ownership' but, more importantly and fundamentally, ensures that planning is coherently informed by findings and views from policy, research and practice.

Co-construction is not easy. CAMAU research identified from the development process in Wales a number of means of developing a shared understanding of progression and using this to support development of the curriculum at all levels of the education system including the school. These means included:

- exploring and discussing policy
- considering critically how policy can be most effectively realised in their context (school, area of learning, stage
- providing support to identify and access relevant research
- providing opportunities to collaborate with researchers on targeted areas
- collaboration across schools supported by local authorities, consortia and Estyn acting as critical friends
- critical consideration of examples of practice elsewhere
- support for the development of assessment and pedagogical practices⁸⁷.

The processes of collaboration and co-construction involve drawing on and sharing the full range of types of evidence which can inform development and enactment of the Curriculum: this range can include evidence provided by the policy, research and practice communities. It is important, also, that participants are stimulated and supported to think critically about and make use of this range of evidence.

⁸⁴ Priestley, M., Alvunger, D., Philippou, S. & Soini, T. (eds.) (2021). *Curriculum Making in Europe*. Bingley, UK: Emerald Publishing

⁸⁵ Waardenburg, M., Groenleer, M. & De Jong, J. (2020). Designing Environments for Experimentation, Learning and Innovation in Public Policy and Governance. *Policy & Politics* 48(1), 67–87,

⁸⁶ See Honneth, A. (2004). Recognition and justice: Outline of a plural theory of justice. *Acta sociologica (Norway).* \$7(4) 351-364; Honneth, A. (2014). *The I in We: Studies in the Theory of Recognition*. Cambridge: Polity Press; applied to assessment in McArthur, J. (2018) *Assessment for Social Justice*. London: Bloomsbury Academic ⁸⁷ *So Far So Good* p. 57

Relevant policy includes most immediately *Curriculum for Wales Guidance*; this can be supported by a range of related support documents such as the *Journey to 2022*. Beyond this, consideration will be needed, as required, of the expectations embodied in the *Curriculum and Assessment (Wales) Act 2021* and any Statutory Instruments and Statutory Guidance associated with that. The implications of wider policies that may extend beyond education must also be considered, as required: e.g. the *Well-being of Future Generations (Wales) Act 2015*, the commitment to the *United Nations Convention on the Rights of the Child*, and *Cymraeg 2050*.

There are several means by which evidence from research can be developed and drawn on as resources are prepared and used to stimulate and support critical thinking and planning. These include:

- drawing on published research to stimulate and inform reflective thinking
- commissioning research for a specific purpose
- developing, extending and embedding the use of research partnerships⁸⁸.

All of these models contribute to building systemic capacity and are being developed within the education system in Wales. The last in particular contributes through supporting practitioners in schools and others to become professional enquirers and those in higher education institutes to develop their understanding of relevant enquiry methods needed to engage in the enquiry process within schools.

The contribution of practitioner experience can also take different forms:

- resources should be capable of being modified to meet the needs of local contexts, including
 most importantly through practitioners drawing on experience within their context as they
 interact critically with these resources
- resources may draw on practice elsewhere as authentic sources of information to stimulate reflection; this is a very different approach from that which describes other practice as 'best practice' (or similar) to be directly emulated or imported into a different context.

As the engagement and development process continues, practitioners are likely to develop their own networks across schools and local authorities and should be supported to do so. The *Curriculum for Wales Guidance* recognises this explicitly in considering the means by which a shared understanding of progression can be developed within and across schools:

Professional dialogue between schools for the purpose of developing a shared understanding of progression should also be a continuous process that takes account of the full breadth of the curriculum. It should build upon the professional dialogue that has taken place within schools, and should enable schools to learn from each other⁸⁹.

The model is equally applicable to all aspects of curriculum development. Cross-school collaboration may take place within a schools cluster or in a wider network focused on a specific curricular area or aspect of learning or on the interests of specific groups of learners or context characteristics. These can be supported as indicated in the bullet point list on page 41 above, derived from CAMAU research.

⁸⁸ As in the National Professional Enquiry Project

⁸⁹ Curriculum for Wales Guidance pp. 233-234

Policy consistency across multiple actors

There is considerable evidence⁹⁰ that schools and practitioners may on occasion perceive themselves as receiving conflicting messages from different national policy sources: the Government itself and statutory and executive agencies and similar bodies. This perception may often arise from rumour and misinterpretation as information is passed from person to person through informal networks, but cannot therefore be ignored. All such bodies should work together to ensure consistent messaging. Professional standards and conditions of service must remain consistent with the values and expectations of Curriculum for Wales and with the development processes which sustain it.

It is easy to think of policy actors as those operating at the national (macro) level of the education system. However it is generally recognised that policy actors operating at the middle or meso level⁹¹ play just as important a role. In Wales, this includes most evidently consortia and local authorities but also such bodies as diocesan boards of education. There is evidence from other countries, including Scotland, that middle tier bodies, through their commitment to support schools, may produce resources and materials which are overly detailed and prescriptive with a consequent loss of critical engagement and thinking in schools.

School governing bodies and boards of management may be considered either as being aligned with the school or as another set of players at meso level. In this context this distinction is in the end unimportant: what matters is that they are supported by national and local authorities to provide appropriate support to schools and head teachers as they carry out the processes of developing and enacting Curriculum for Wales.

A culture of enquiry⁹²

Professional learning is a system-wide issue involving every participant: learner, practitioner, parent, policy maker, researcher. All those who have been involved in the development of Curriculum for Wales to date have participated in learning within a culture of enquiry; this reflects the commitments to such a culture in *Developing Schools as Learning Organisations* and the *Professional Standards*. The processes of engagement in the development of the Curriculum developed the capacity of the system to involve and support participants as strategic thinkers. Both policy makers and practitioners have expressed clearly the extent to which they valued this participation and the need for this approach to professional learning and capacity building to continue across the education system⁹³. All those involved, from beginning teachers to school leaders to national policy makers, should have the right to support them to be active participants in the same processes of thinking. Professional learning should encompass both capacity building for individuals at all levels

⁹⁰ Examples are provided in Hayward, L. & Spencer, E. (2010) The complexities of change: formative assessment in Scotland, *Curriculum Journal*, 21:2, 161-177; Livingston, K., Spencer, E., Hayward, L. & MacBride, G. (2016). *Supporting Teachers' Assessment Professionalism in the Context of Change in Curriculum and Examinations* University of Glasgow specifically investigated the question: *What are the potential implications for teachers' assessment professionalism when national policy and practical advice derive from two (or more) sources/organisations?*

⁹¹ See Thijs, A. & Van den Akker, J. (2009). *Curriculum in Development* Enschede: Netherlands Institute for Curriculum Development (SLO) for information on the role of multiple levels (macro, meso, micro, nano) in curriculum development. ⁹² Referred to briefly in Section 3.

⁹³ So Far So Good pp. 68; 102 ('the concept of professional learning should be extended beyond individual capacity building to encompass system change; successful professional learning would lead to fundamental cultural change); 113 ('Professional learning should encompass capacity building for individuals at all levels and recognition of system change; consideration should be given to how capacity can be created to support such significant change.')

and the recognition of the need for system change. This requires very different models of professional learning and support for capacity building than have often been employed in the past.

Within a culture of enquiry one effective approach to bringing together policy, practice and research is through the use of learning communities. Wenger⁹⁴ developed the concept of the community of practice which requires:

- joint enterprise (a shared understanding of the purpose of the community of practice)
- mutual engagement of the members (members building collaborative relationships)
- a shared repertoire (communal resources).

The parallels of this with the principles of the Integrity Model of Change, outlined earlier in this Section, are evident. There is strong evidence concerning the ways in which practitioners can be involved through participation in learning communities of this nature. In summary, Claire Wyatt-Smith and her colleagues in Australia found that teachers in moderation meetings as examples of communities of practice

... move to and from between (1) supplied textual artefacts, including stated standards and samples of student responses, (2) tacit knowledge of different types, drawing into the moderation, and (3) social processes of dialogue and negotiation. While the stated standards play a part in judgement processes, in and of themselves they are shown to be insufficient to account for how the teachers ascribe value and award a grade to student work in moderation⁹⁵.

This research raises valuable questions for consideration:

- the relationship between tacit knowledge and explicit knowledge
- means of mediating and supporting interaction with new sources of knowledge and understanding
- means of sharing understanding
- the importance of affect and context as well as cognition.

The development of Curriculum for Wales through co-construction requires extending the phrase 'learning communities' to include active participation from members from across the policy, research and practice communities; if individuals cannot be immediately present in the meeting space, then input from all the three groups should be available to inform thinking and discussion.

In this context, policy development, engagement and implementation can no longer use a model which considers policy development as a once-and-for-all exercise, carried out centrally, the results of which are prescribed unambiguously in documentation and handed down for implementation to practitioners in schools. Rather the model should be one which recognises that policy development is an ongoing process in which policy is only realised as it is developed and refined and enacted at all levels of the system. This model of policy development and realisation is carried out through the use of co-construction which requires all participants to work in new and different ways.

While learning communities have generally taken the form of groups meeting face-to-face, recent experience demonstrates that participation in online learning communities should not be considered

⁹⁴ Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge: Cambridge University Press

⁹⁵ Claire Wyatt-Smith, Val Klenowski & Stephanie Gunn (2010) The centrality of teachers' judgement practice in assessment: a study of standards in moderation. *Assessment in Education: Principles, Policy & Practice* 17(1), 59–75

as a second-best alternative. The affordances of online modes develop opportunities for participation include:

- ready access for those who might find face-to-face participation difficult
- extended opportunities to include participants from different communities
- digital tools to support interactive and collaborative learning
- enhanced opportunities for equitable participation
- support for ongoing synchronous and asynchronous team working
- enhanced awareness of the importance of interpersonal and communication skills
- opportunities to make participants' work more widely visible and shared
- online sharing of resources⁹⁶.

New ways of working

Whether operating through online, blended or face-to-face provision, learning communities imply the development of protocols and ways of working which will be new to many participants and which may well make new demands of them⁹⁷.

At all levels of the system, it will be necessary to ensure the provision of support for ongoing work in schools to support and maintain co-construction. This includes consideration and provision of stimulus material (e.g. input from research, mediated as appropriate; examples of practice elsewhere, for critical consideration, not uncritical acceptance, guests to provide specific input). The capacity to draw on critical friends who can pose questions and provide further information will be of value as will the development of capacity and skills required to facilitate and support discussion.

Approaches to building collaborative relationships and learning communities will depend on the context and on the mode (e.g. face to face, online community). They will recognise that social relationships are a necessary context and basis for professional discussion and that there are both opportunities and potential threats posed by informal collaboration (e.g. the risk of 'groupthink').

Deep, extended and active discussion in a safe space is central to the co-construction process to permit implicit and deeply held views to become explicit. Facilitation of these processes requires the development of the capacity to:

- maintain the broader vision and core purposes
- facilitate rather than dominate discussion
- mediate between research, policy and practitioners
- ensure that critical friends and voices are heard
- to ensure that all participants are regarded with respect so that their voices and views are heard and listened to.

⁹⁶ Derived from: European Association of Distance Teaching Universities (EADTU) (2016) *Quality Assessment for E-learning:* a Benchmarking Approach 3rd Edition

⁹⁷ The infographics available at https://www.ronritchhart.com/info-graphics may be helpful in stimulating consideration of means of stimulating and sustaining new ways of collaborative working which will support the learning of all participants. These infographics were developed for use with school or college students; in a system where all are learners are equally suitable for capacity building and professional learning contexts. The author is a researcher at Project Zero, Harvard Graduate School of Education.

Such discussion may require new (and perhaps uncomfortable) understandings of relationships among participants and of leadership: at times participants may find themselves outside their comfort zone; support, systemic and individual, must be available to prepare for this possibility.

It is worth noting that the concept of critical friends can include drawing on:

- contributions by those with expertise of different types from outside the group
- the perspectives of novice and experienced staff working together
- the views of colleagues from different stages working together
- making use of such structures as school clusters to provide critical friends
- inviting colleagues from a different context to reflect with your group

Indeed, members of a group, once established, can with appropriate support take on the role of critical friend.

There is evidence that any perception by practitioners that innovation involves 'de-skilling' is likely to lead to negative attitudes towards the innovation and those who propose it. Co-construction affords the time and space to recognise the experience and expertise which practitioners bring with them and operates on the assumption that all participants, whatever the community or context to which they belong, are learners, developing their knowledge and skills. Discussion within learning groups designed to inform school curriculum planning must be structured to ensure that all feel comfortable and encouraged to contribute whatever their length of experience or their place in the management structure of the school or education service as they contribute to leadership of learning.

Participants in these processes may need support to recognise the value, range and the parameters of their own and others' experience and to become aware of their tacit attitudes and assumptions. All must be prepared to be able to offer evidence justify their views.

Recommendations: Section 9

- 30. Resources and materials designed to support the development of Curriculum for Wales should develop the capacity of the education system, schools and practitioners to understand and make use of the concept of subsidiarity in designing the school's curriculum within the national structure of expectations.
- 31. Resources and materials designed to support the development of Curriculum for Wales should develop the capacity of the education system, schools and practitioners to understand and make use of the concept of co-construction as a key feature of the development process.
- 32. Co-construction requires continuing support of various types if it is to promote sustainable meaningful change; resources and materials should afford practical support for developing the skills of all participants required to ensure their full and effective participation in the processes of co-construction.
- 33. Resources and materials designed to support the development of Curriculum for Wales should:
 - afford opportunities for users to draw critically on relevant information derived from all three areas of policy, research and practice

- make use, where appropriate, of suitable scaffolding or means of mediating to ensure that
 participants from all three communities share common understandings of concepts and
 terminology as they bring together evidence from policy, practice and research
- employ research as a means of encouraging reflection rather than as prescribing detailed curriculum plans
- afford space and support for the contribution of the experience, understanding and skills of practitioners to be respected and reflected on.
- 34. Support, including resources and time, should be afforded to support a range of practitioner networks: e.g. local and national; focused on a stage or on a curricular aspect; focused on pedagogy or assessment; bringing together similar schools; bringing together school leaders..
- 35. All national agencies should regularly consult together with relevant Welsh Government directorates to ensure consistency of messaging in all of their support activities and should take steps to ensure that those who speak on their behalf are aware of this responsibility.
- 36. Middle tier organisations should provide support that facilitates critical engagement and builds capacity in schools rather than providing support which inadvertently may limit such opportunities.
- 37. Consideration should be given to ensuring that school governing bodies are aware and supported in carrying out their responsibilities in this area.
- 38. Resources and materials designed to support the development of Curriculum for Wales should:
 - support the development of learning communities which involve a range of participants in active critical learning which draws on a wide range of evidence
 - build system capacity and develop a range of skills to ensure that all participants have opportunities and can use these to share understandings of professional experience and expertise of policy and of research.
- 39. The development of a culture of enquiry across the education system requires the provision of dedicated support and resources.

10.Developing learner voice and participation⁹⁸

The *Curriculum for Wales Guidance* poses a key question to all responsible for developing their school's curriculum:

How will your curriculum build in co-construction with learners, their families and the wider community?99

While co-construction has been a major feature in the development of Curriculum for Wales, shaping the structure and organisation of the curriculum, this did not fully extend to include the voices of learners.

Article 12(1) of the UNCRC is clear:

States Parties shall assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child, the views of the child being given due weight in accordance with the age and maturity of the child.

Throughout all of the processes considered in this paper, learners should have opportunities and means of contributing at all levels to the development of the curriculum: there is strong research evidence that an approach which provides formal opportunities for the learner's voice but does not treat its messages with respect of little use¹⁰⁰. Listening respectfully to learners and engaging with what they have to say can take place through a range of school activities and contexts which ensure their presence, participation and power. These include participation in formal consultations and working groups as well as participation in classroom curriculum, pedagogy and assessment practices in which they play active roles in planning, participating in and reviewing learning experiences¹⁰¹. The CIDREE yearbook 2019 provides twelve accounts, each from a different European country, of ways in which the voice of young people have recently contributed to education policy and practice at different levels of the system¹⁰².

Learners like all other participants in co-construction bring their own experience to the table and, again like all other participants, they need to share in and understand the experience and perspectives of others, including those related to policy and research. Both statutory and non-governmental organisations have developed practice and skills in scaffolding policy and research for diverse audiences including children and young people.

Learners can understand the role of research through participation in the planning and conduct of research, through ensuring that their views are expressed and recorded, and reviewing evidence to determine conclusions that arise. This include the need for consideration of ethical issues¹⁰³.

⁹⁸ There has been consideration of the contributions of the learner to assessment practice in Sections 7 and 8 above e.g. through contributing to the development of learning intentions, self and peer assessment and responsibility for maintaining a learning portfolio.

⁹⁹ Curriculum for Wales Guidance p. 21

¹⁰⁰ Lundy, L. (2007). 'Voice' is not enough: conceptualising Article 12 of the United Nations Convention on the Rights of the Child. *British Educational Research Journal*, 33(6), 927-942

¹⁰¹ See the discussion in Lundy, L. & Cook-Sather, A. (2015). Children's Rights and Student Voice: Their Intersections and the Implications for Curriculum and Pedagogy in Wyse, D., Hayward, L. & Pandya, J. (2015) *The SAGE Handbook of Curriculum, Pedagogy, and Assessment* London: Sage; also relevant is Charteris, J., & Thomas, E. (2017). Uncovering 'unwelcome truths' through student voice: Teacher inquiry into agency and student assessment literacy. *Teaching Education*, 28(2), 162-177 ¹⁰² Holcar Brunauer, A. (Ed.) (2019). *Student Voice in Education. CIDREE Yearbook 2019*. Ljubljana: National Education Institute Slovenia

¹⁰³ For an example of how to approach this issue, see the University of Wales Trinity Saint David Pupil Experience Toolkit pp 12 ff <u>pupil-experience-toolkit.pdf</u> (gov.wales)

Learners should play an active part in all aspects of learning: in developing learning intentions and success criteria, in dialogue about their learning in the course of classroom activity, through responding to feedback from peers and practitioners, through the processes of self-assessment, through responsibility for managing a learning portfolio, through identifying and evidencing learning that has taken place beyond the classroom. All such activities provide opportunities to enact and develop the Four Purposes.

Developing the roles carried out learners within the education system to match the aspirations and Four Purposes of the Curriculum for Wales implies changes in practice at all levels of the system. While this may be most evident in classrooms and schools as children and young people become more active, more autonomous and more responsible for their learning, support and stimulus will be valuable at all levels of the education system.

Recommendations: Section 10

40. Support for schools and practitioners is important in building capacity and developing professional skills in creating, discovering and using opportunities which allow the meaningful expression of the learners' voice at all stages and levels of planning as well as within the ongoing learning and assessment practices in every classroom.

11. Matters specific to individual Areas of Learning and Experience 104

There are several matters which may arise in individual Areas of Learning and Experience for which there may be a perceived need for resources to support development. These often reflect the innovative nature of Curriculum for Wales, the consequent extended rights and responsibilities of schools and practitioners and the central concept of progression in learning.

Expressive Arts

There was debate as Curriculum for Wales was being developed about the extent to which the established arts disciplines should be recognised within this Area of Learning and Experience; similar debates have been conducted in other jurisdictions and in research¹⁰⁵. While this has been resolved in Curriculum for Wales, a number of related questions may require exploration and support:

- While the statements of What Matters are designed to be applicable to other disciplines as well as to the named five (art, dance, drama, film and digital media and music), it will be important to consider, as new fields develop (e.g. conceptual art, text based art), how support can be afforded to ensure that teaching and learning of these is informed by and aligned with the statements of What Matters and the Descriptions of Learning.
- It may be important to ensure that literal interpretations of occasional unintentionally exclusionary phrasing such as 'This Area spans the five disciplines of art, dance, drama, film and digital media, and music' 106 are prevented.
- Support may be required to address questions about how the Principles of Progression in the Expressive Arts¹⁰⁷ can be realised in each of the five named disciplines and in any further disciplines. There may include support to develop understanding of progression in aspects such as synthesis, critical enquiry and critical thinking and collaboration¹⁰⁸.
- The introduction to the Expressive Arts in the *Guidance* makes explicit reference to the importance of experience; however, all of the Descriptions of Learning may be read as referring to outcomes rather than experiences¹⁰⁹. Schools and practitioners may wish support to develop their capacity to identify the extent and the ways in which experience is implicit within these Descriptions of Learning and can be drawn out from them to develop learning intentions.
- Many practitioners who are not specialists in the arts may well consider themselves less
 confident in at least some aspects and disciplines of the Expressive Arts; support to develop
 capacity across all of the Expressive Arts, including developing fields, may be helpful.

¹⁰⁴ Note that in this section, many references to research materials are taken from CAMAU research reported in *Learning about Progression*.

¹⁰⁵ Learning about Progression pp. 28-45 summarises relevant evidence.

¹⁰⁶ Curriculum for Wales Guidance p. 66

¹⁰⁷ Curriculum for Wales Guidance pp. 57-58

¹⁰⁸ 'Critique' is explicitly referred to twice and 'synthesis' once in the Descriptions of Learning, and then only at Progression Step 5; collaboration in creative work is mentioned rarely in the Descriptions of Learning – most references to the 'work of others' appear intended to be read as posing a contrast with the learner's own work.

¹⁰⁹ The statements of What Matters and the Principles of Progression refer to experiencing and participating in such activities as exploring, responding, experiencing, interpreting, using skills and creating; all except 6 of the 60 Descriptions of Learning begin with the word 'I can' which implies achievement rather than experience; even when this phrase is linked with 'explore' or 'experiment', it still suggests primarily an outcome rather than an experience.

Health and Well-being

Many school curricula across the globe promote health and well-being through cross-curricular provision and/or through narrowly focused free-standing units and/or through focusing on meeting the needs of specific groups of learners¹¹⁰. The very different approach adopted in Curriculum for Wales is likely to produce a demand for support to build both school capacity and the skills and confidence of practitioners.

- Support may be valuable in developing understanding and practice in curriculum planning
 across curriculum organisers: across the statements of What Matters within Health and
 Well-being; between Health and Well-being and the other five Areas of Learning and
 Experience; between this Area and the mandatory curriculum element Relationships and
 Sexuality Education.
- Support may be welcome to inform curriculum planning which recognises the close relationship in Health and Well-being between learning supported by the explicit curriculum of the school or class, learning through the culture, ethos and climate of the classroom and school, learning through participation in the wider life of the school and learning beyond school.
- Support may also be welcome to build capacity in making sensitive use of learners'
 experience outside of school to support their progression through the Health and Well-being
 curriculum within the school¹¹¹; in developing this capacity support should be particularly
 sensitive to fully recognising the rights of the child or young person to privacy.
- There are many organisations and pressure groups with an interest in this area which will wish to promote their interests through explicit recognition within the curriculum. Support to ensure that such organisations and schools and practitioners share mutual understandings of the principles underpinning Curriculum for Wales may well be helpful.
- It is likely that a range of practitioners will often be involved in teaching and learning activities within this area of the curriculum¹¹²; there is likely to be value in developing support for capacity building in inter-agency collaboration and in building the skills of staff in collaborative planning and practice, drawing on the expertise and skills of all partners.
- Schools and practitioners, as they address the questions raised in the section 'Specific considerations for this Area'¹¹³ to inform their curriculum planning, may benefit from the availability of support resources and materials which develop their capacity to draw on an extended range of evidence to inform planning.
- Because the statements of What Matters are innovative, targeted support to develop understanding of how progression in learning is embedded within and across the Descriptions of Learning is likely to be of value.

¹¹⁰ See Learning about Progression pp. 46-66 and references therein for examples of these approaches.

¹¹¹ Experience may take place in a number of contexts: from youth organisations, faith groups, community organisations, through family and peer group activities to the learner's own actions and reflections.

¹¹² Some of these practitioners will be members of staff in the school, some based in other agencies with regular involvement with the life of school and of its pupils, and some based in other agencies with involvement only in specific aspects of learning in Health and Well-being.

¹¹³ Curriculum for Wales pp. 88-94

- The sensitivity of aspects of learning in this Area will be readily recognised: support may be required to ensure that schools and practitioners are comfortable with and skilled in dealing with sensitive topics, including recognising the rights of children and young people and respecting their privacy; schools (practitioners and governing bodies) may well also value support on means of involving parents and their local community in understanding of the values and rationale that underpin practice in this Area of Learning and Experience.
- Children and young people have the right to continue to make progress in learning in all
 Areas of Learning and Experience until the age of 16. While learning in the other five Areas
 of Learning and Experience can be readily taken forward through GCSE courses or equivalent
 at this stage, this may be less likely in Health and Well-being. Consideration may therefore
 be afforded to support for ensuring progression across the full breadth of Health and Wellbeing into and through the final years of compulsory education.

Humanities

This area of the curriculum incorporates a range of what in many other curricula are perceived to be distinct, perhaps incompatible, subjects or fields of learning; some may not readily recognise the 'themes, concepts and transferable skills' which are according to the Guidance 'common' to these fields; indeed the number of fields referred to (apparently thirteen) may itself be perceived as challenging¹¹⁴.

- Schools and practitioners may value support to develop their capacity to use the organising structure afforded by the statements of What Matters to bring together aspects of these traditionally distinct fields of study and to develop their understanding of how these statements of What Matters are reflected in the concepts of these disciplines and may be developed through a subject specific content.
- Support may be helpful in supporting schools and practitioners to develop understanding of interdisciplinary learning founded on exploration of common concepts and the development of common skills.
- Research on progression in learning in Humanities often relates to specific subject areas within this Area of Learning and Experience: for example, geography¹¹⁵ or history¹¹⁶; support to extend understanding of progression across these boundaries may be helpful.
- Schools and practitioners may justifiably seek support as they move from the current, often subject based curriculum, to this new understanding of Humanities: those developing support resources are likely to find that the section 'Specific considerations for this Area' provides a base on which they can develop resources and support materials¹¹⁷.

¹¹⁴ 'The Area encompasses geography; history; religion, values and ethics; business studies and social studies. These disciplines share many common themes, concepts and transferable skills, while having their own discrete body of knowledge and skills. Learners may also be introduced to other complementary disciplines, such as classics, economics, law, philosophy, politics, psychology and sociology, if and where appropriate.' *Curriculum for Wales Guidance* p. 98 ¹¹⁵ See for example, Rawling, E. (2017) *The Welsh curriculum review: Developing a curriculum framework*. Commissioned Paper by Welsh Government; and a summary of approaches in the Geographical Association (2014) publication *Thinking about progression in geography*

¹¹⁶ See for example, Lee, P. & Shemilt, D. (2003) A scaffold not a cage: Progress and progression models in history, *Teaching History*, 113, 13–23.

¹¹⁷ Curriculum for Wales pp. 118-123

Languages, Literacy and Communication

The structure of this area of the curriculum is new and may appear complex; the organisation in terms of the statements of What Matters differs from the traditional organisational structure of language teaching based on four modes of communication: this results from the clear principles which underpin this structure and the commitment to respect all languages and all those who use them. The relationship between this area and the National Literacy Framework may afford further complexity, even tension, as the latter continues to be organised primarily in terms of the four modes of communication.

- Support may be of particular value in developing understanding and practice related to the
 concept of multilingualism and to living in a bilingual nation, which is central to progression
 in learning in this Area of Learning and Experience. This will involve developing
 understanding of the concept of plurilingualism as defined in the Guidance as 'the
 knowledge, use and connection made between a number of languages'.
- Support may be valuable to develop recognition that, while a learner's proficiency may vary
 across languages, learners can make mutually supportive connections across languages to
 make further progress in learning; such support will inform practice which develops learners'
 capacity to employ the skills of *mediation* within the same language or from one language
 into another. Means of developing the skills of *translanguaging* (alternating the use of two
 languages for input and output in the same activity) may be included in such support.
- Practitioners may value and benefit from support to develop their understanding and employment of the range of language skills that younger children bring to school¹¹⁸.
- These three points may require to be addressed through the creation of different pathways within the common route map: support for this may be welcome.
- Practitioners may value and benefit from support to develop their capacity and skills in Content Language Integrated Learning (CLIL) pedagogy¹¹⁹.
- Support for schools and practitioners to explore the relationship between this Area of Learning and Experience and the national Literacy Framework may be beneficial to prevent any risk of the emphasis within Curriculum for Wales on the common nature of progression across languages being lost. This risk may arise from the focus in the Framework's on English medium and Welsh medium at the expense of Welsh in English-medium settings and International languages. The distinctive and very detailed nature of the statements in the Literacy Framework labelled 'Welsh-medium statement' further weakens the concept of a common approach to progression in language learning. The importance of such support may be enhanced by the fact that many schools and practitioners will have been accustomed to making use of the national Framework and associated assessments.

¹¹⁸ See, for example, for young children: Kirsch, C. (2017) Young children capitalising on their entire language repertoire for language learning at school, *Language*, *Culture and Curriculum*; and for 'disadvantaged' adolescents: Jørgensen, J. N. (2012) Ideologies and norms in language and education policies in Europe and their relationship with everyday language behaviours, *Language*, *Culture and Curriculum*, 25:1, 57-71

¹¹⁹ See, for example, Meyer, O., Coyle, D., Halbach, A., Schuck, K. & Ting, T. (2015) A pluriliteracies approach to content and language integrated learning – mapping learner progressions in knowledge construction and meaning-making, *Language*, *Culture and Curriculum*, 28(1), 41-57; Ruiz de Zarobe, Y. & Cenoz, J. (2015) Way forward in the twenty first century in content-based instruction: moving towards integration, *Language*, *Culture and Curriculum*, 28(1), 90-96

 Continuing support to ensure alignment in school practice between the expectations of the Curriculum Guidance in the Languages, Literacy and Communication Area of Learning and Experience and the support afforded by Siarter laith, Cymraeg Campus and Cymraeg Bob Dydd may be of assistance.

Mathematics and Numeracy

As noted by the CAMAU research¹²⁰, mathematics curricula across the world often demonstrate considerable similarity of structure in terms of conceptual content. The Curriculum for Wales, while also making use of common concepts and a typical structure, can be distinguished from many other curricula by its recognition of the importance of pedagogy which promotes progression in learners' understanding of concepts and their capacity to apply these effectively in a range of contexts and thus to further build on them.

- The wording of the Descriptions of Learning, which lack explicit reference to experience ('I have...' statements) as opposed to expected achievement ('I can...' statements), may inadvertently lead to school planning continuing to focus on content at the expense of pedagogy; support for schools and practitioners to build capacity in employing pedagogical approaches appropriate to content and context may thus be helpful.
- There has been extensive research into the development of fine grained learning progressions, often referred to as learning trajectories, in mathematics and numeracy; these trajectories describe progression in a particular aspect over a short period of time¹²¹; support may be considered for building capacity in critically relating such learning trajectories to the high level statements of progression in the Descriptions of Learning and in using them to inform appropriate pedagogy and assessment¹²².
- The organisation of the Principles of Progression developed for this Area of Learning and
 Experience differs from that outlined in the introductory section of the *Curriculum for Wales*Guidance and developed in each of the other five Areas. Practitioners, especially those who
 work in more than one Area, should be supported to understated what is common across
 these apparently different models.
- The structure of the national Numeracy Framework does not entirely match that of this Area. The Numeracy Framework employs the titles of three of the Curriculum for Wales statements of What Matters as titles for three of its four strands of progression in Numeracy; the fourth strand entitled 'Developing mathematical proficiency' comprises lines of development which correspond to the mathematics Principles of Progression s in the Curriculum Guidance. Support for schools and practitioners to explore the relationship between this Area of Learning and Experience and the national Numeracy Framework may

¹²⁰ Learning about Progression p. 131

¹²¹ See, for example: Clements, D.H. & Sarama, J. (2004) Learning Trajectories in Mathematics Education. *Mathematical Thinking & Learning* 6, 81-89; Daro, P., Mosher, F. & Corcoran, T. (2011) *Learning trajectories in mathematics (Research Report No.68)*. Madison, WI: Consortium for Policy Research in Education; Kobrin, J.L. & Panorkou, N. (2016) The Building Blocks of Learning *Educational Leadership* 73:7, 32-36; Sarama, J. & Clements, D.H. (2009) *Early childhood mathematics education research: Learning trajectories for young children*. New York: Routledge

¹²² See, for example, Van den Heuvel-Panhuizen, M. (Ed.) (2008) *Children learn mathematics: A learning-teaching trajectory with intermediate attainment targets for calculation with whole numbers in primary school*. Rotterdam, The Netherlands: Sense Publishers

- be of benefit in addressing questions arising from the different structures employed by the Numeracy Framework and the Curriculum for Wales.
- Support for schools and practitioners may be particularly helpful in ensuring that these
 Principles of Progression are at all times perceived as underpinning progression across all
 aspects of mathematics rather than as discrete aspects of mathematics and numeracy to be
 developed separately from the other strands.

Science and Technology

The three large fields brought together within this Area of Learning and Experience have very different histories and practitioners may value support in bringing these together meaningfully. CAMAU research¹²³ concluded that there has been more research carried out into learning progression in science than in design and technology and illustrates differences in approaches to describing progression in each of the three broad fields.

Within this Area of Learning and Experience, a number of contrasting means of organising key concepts have been previously used by researchers: one of these distinctions is that between 'big ideas of science' and 'big ideas about science'¹²⁴; another is the recognition of three areas of competence: 'content knowledge', 'procedural knowledge' and 'epistemic knowledge'¹²⁵. Given this, resolving possible tensions and ensuring progression in all aspects of learning in science and technology may initially be challenging and have implications for the range of support to be afforded.

- There has been considerable research into finer grained learning progressions in science and technology, sometimes referred to as learning trajectories; these trajectories have tended to focus on developing progression in the 'big ideas of science' or 'content knowledge' rather than on progression in other aspects of learning. Support may be valuable for building capacity in critically relating such learning trajectories to the high level statements of progression in the Descriptions of Learning and in using them to inform appropriate pedagogy and assessment.
- As schools and practitioners use the statements of What Matters to plan learning
 progressions it will be important to provide support to ensure recognition of the distinctive
 nature of these statements and to avoid possible misunderstandings related to continuing
 use of previous curriculum organisers¹²⁶.
- There may be a temptation to continue to understand the What Matters statement 'Design thinking and engineering offer technical and creative ways to meet society's needs and wants' as being primarily concerned with the application of scientific knowledge and understanding and thus in some way as operating at a secondary order of thinking; support to develop understanding of the nature of this What Matters statement may be of value.

¹²³ Learning for Progression pp. 150-162 passim

¹²⁴ See Harlen, W. & Bell, D. (2010) *Principles and big ideas of science education*. Hatfield: Association for Science Education ¹²⁵ See OECD (2017) *PISA 2015 Assessment and Analytical Framework: Science, Reading, Mathematic, Financial Literacy and Collaborative Problem Solving*, revised edition, Paris: OECD Publishing

¹²⁶ There may be a temptation for some parties outside education, on the basis of long prior experience to regard 'The world around us is full of living things which depend on each other for survival', 'Matter and the way it behaves defines our universe and shapes our lives' and 'Forces and energy provide a foundation for understanding our universe' as being no more than the renaming respectively of biology, chemistry and physics.

- There is a risk that a number of terms, perceived as referring to fundamental aspects of
 thinking in this area, may be used without common shared understandings: these include
 modelling, systems thinking and problem solving. Support for developing the capacity to
 unpick these and critically consider implications of these for planning progression in and
 across the statements of What Matters may be important.
- Some practitioners may consider themselves as lacking knowledge and understanding of one
 or more aspects of the Science and Technology area and/or may feel a lack of confidence in
 their capacity to support learner progression in this area. Appropriate support may be
 required to address this.

Recommendations: Section 11

41. Those commissioning and developing support resources should pay due regard to ensuring that support is available for practitioners as they address issues specific to individual Areas of Learning and Experience, such as those identified in this paper.

12.Risks

A number of risks to the curriculum development process have been referred to throughout this paper. This section affords a short summary of risks to the processes of development which can be identified or have already been identified within Wales. Many of these risks reflect the inheritance from the past: there is considerable evidence that changing from an established culture with its associated policies and practices, especially when these are mandated nationally, to a radically new culture and policies which will require different expectations and practices of all participants can be a very demanding process which requires consistent support. There is some overlap across the categories noted here.

Misunderstanding of the nature of the curriculum

There is a high risk that some participants and some organisations offering support may not fully appreciate the nature of this curriculum and approach school curriculum development making use of previous curricular models.

- Focusing on the 'what' rather than the 'why': Perceiving a curriculum as being defined in terms only of content, some may turn immediately to the Descriptions of Learning and use these to develop content without addressing the role of the Four Purposes, the rationales underpinning the Statements of What Matters, the concept of progression and related advice within *Curriculum for Wales Guidance*.
- Focusing on the 'what' rather than the 'how' (1): Little or no consideration is given to
 planning pedagogical approaches and assessment activity to align with learning intentions.
 Insofar as attention is paid to pedagogy and assessment, superficial reference may be made
 to the pedagogical and assessment principles contained within Curriculum for Wales
 Guidance without clearly relating these to learning intentions or progression in learning,
 content or pedagogy.
- Focusing on the 'what' rather than the 'how' (2): The wording of the Descriptions of Learning, the great majority of which take the form of 'I can...' statements rather 'I have...', may lead to some to concentrate on outcomes to the detriment of consideration of processes of learning and of the experiences which lead to successful achievement.

Misunderstanding of how the curriculum structure informs planning learning

Although the curriculum structure is relatively simple, there is a risk that its radical nature may lead to misguided use of the components to inform the planning process.

- Referring superficially to the Four Purposes: The Four Purposes are used as a rhetorical reference point; participants do not understand how these underpin curriculum planning at all levels, do not engage with them and do not use them to inform and evaluate planning and practice.
- Using the Four Purposes to directly plan learning: The capacities and attributes related to
 the Four Purposes in the Curriculum for Wales Guidance are directly employed as a
 progression framework without being related to progression in the Areas of Learning and
 Experience, the statements of What Matters or the mandatory skills Frameworks.

- Conflating curriculum structure and the school timetable: The six Areas of Learning and
 Experience may be used directly and uncritically to restructure the organisation of the
 school or class curriculum and timetable. The statements of What Matters may also be used
 similarly.
- Underestimating the complexity of multidisciplinary and interdisciplinary approaches: There is a risk that this is approached from consideration of superficial aspects of content rather than consideration of learning and progression.
- Inheriting the past (1): Progression Steps are perceived as prescriptive age-related replacements for the former Key Stages and levels rather than as reference points to plan progression for all learners.
- Inheriting the past (2): Descriptions of Learning are perceived as prescribed standards which should drive curriculum design, without due regard to the purposes of the curriculum and the need to recognise each learner's progression.
- Overlooking aspects of the curriculum: There is a risk that the mandatory and integral crosscurricular skills are paid insufficient or superficial or imperfectly informed attention as schools and practitioners plan their curriculum in terms of the Areas of Learning and Experience.
- Overlooking possible tensions: There is a risk that possible tensions between the mandatory national Literacy and Numeracy Frameworks and the Curriculum for Wales specification of the Languages, Literacy and Communication and the Mathematics and Numeracy Areas of Learning and Experience are ignored or glossed over.

Progression and assessment

The concept of assessment within Curriculum for Wales is both more encompassing and radically different from current practice. Attention will need to be given to ensuring that the focus remains on planning learning experiences in which content, pedagogy and assessment jointly promote and support progression in learning. While this list may appear comparatively brief, the impact of these risks would be high; there is already evident concern about the high likelihood of the incidence of risks in this area.

- Inheriting the past (3): Descriptions of Learning may be employed directly as assessment
- Inheriting the past (4): Descriptions of Learning can be broken down into lists of brief subordinate statements, which can be used as tick boxes against which learning is assessed.
- Inheriting the past (5): Progression is described in terms of activities and tasks carried out rather than in terms of learning processes and achievements.
- Moving from principle to practice: If support is not provided on the means of turning
 principle into practice (e.g. on developing deeper understanding of how to develop rich and
 challenging learning intentions and success criteria which evidence progression), there is a
 risk that low level task-oriented tick box approaches will continue to be employed.
- Affording priority to accountability: Assessment practice is distorted by the perception that assessment evidence will be used for accountability requirements.

- Misunderstanding Personalised Assessments: There is a risk that some may confuse the formative role of Personalised Assessments in Literacy and Numeracy with the summative role of previous systems of national assessments and tests.
- Distinguishing assessment from teaching and learning: Assessment may be planned independently from the other aspects of curriculum planning; indeed some organisations offering resources may produce assessment activities designed to be used by practitioners regardless of their own school and classroom context.
- Qualifications washing back: Learning experiences and assessment practice in earlier years of secondary school are designed to reflect perceived requirements of school qualifications.

Subsidiarity and co-construction

Subsidiarity and co-construction may be difficult concepts to realise fully in practice because they will be largely new to a number of participants, they require new capacities and personal skills at all levels of the education system and they require dedicated resources.

- Depending excessively on a leadership cadre: There is a risk that a relatively small number of
 practitioners involved deeply in the early stages of development (e.g. in Pioneer working
 groups, Government advisory groups) may come to be regarded as 'experts' leading to
 possible exclusion of other practitioners from full engagement.
- Failing to recognise national expectations: Some may perceive subsidiarity as affording a rationale for lowering or narrowing expectations of learners as schools plan within their local context.
- Stepping boldly where angels tread carefully: There is a risk that participants may seek to implement cross-sector and/or cross-professional working without fully appreciating the need to plan for the complexities of so doing and/or without the necessary support to do so.
- Intending the end without planning the means: There may be failure to provide sufficient resources (e.g. dedicated time), organise support (e.g. stimulus material, input from critical friends) or develop capacity and skills (e.g. of managing discussion) to support and maintain co-construction.
- Underestimating the importance of scaffolding and mediation: Using evidence from each of
 policy, practice and research to inform thinking and decisions will be new to many and may
 be ineffective unless careful consideration is given to how to mediate input from members
 of each community to others.
- Underestimating the importance of reflection: As all bring their own backgrounds and
 expectations to co-construction they may benefit from support to develop the capacity to
 reflect critically on their own assumptions while working with others.
- Giving way to experts: Schools may underestimate the value of their experience and practice and misunderstand co-construction as 'working with experts' who will provide solutions; all bring expertise to the table.

Retrofitting and off-the-shelf approaches

There will be temptations, arising both from external pressures and encouragement and from a concern to ensure rapid progress in developing the school's curriculum, to make use of readily available solutions.

- Accommodating Curriculum for Wales to previous policy and practice: The principles of Curriculum for Wales are at risk of being more or less ignored as they are interpreted to accord with previous policy and practice which can continue to be used.
- Tweaking resources: Third party providers may offer resources (often developed for curricula in other jurisdictions), with minor adjustments to match minor surface details of Curriculum for Wales, without embodying the Curriculum principles and aspirations.
- Being persuaded by sales talk: Schools and practitioners are tempted to buy off-the-shelf solutions from third party suppliers rather than fully engaging in depth with the principles of Curriculum or Wales as they plan.
- Helping one's friends: Schools and practitioners share in-school developments with one another without fully engaging with curricular principles and/or critical consideration of differences in context.
- Bringing in the experts: Curriculum planning or design is passed over to external consultants, which prevents the school and practitioners from fully engaging with the Curriculum for Wales principles and from building the capacity to do so in the future.
- Offering excessive support: Similar to the last point, well-intentioned but excessively
 detailed support may be offered to schools from bodies within the education system in
 Wales; this is likely to have the unintended effect of reducing schools' opportunities to build
 capacity and professional skills.
- Finding the silver bullet: There is a risk that some curriculum development models will be presented as the single effective solution to all one's challenges; schools and practitioners should be supported to analyse such offers critically.

Coherence, policy and systemic integrity

- Powerful drivers continuing to operate: Learning in secondary schools may be primarily driven by the perceived demands of qualifications; assessment in all schools may be primarily driven by the perceived demands of accountability; the curriculum may be skewed by perceived priority being afforded to literacy and numeracy.
- Hearing mixed messages: Schools and practitioners may perceive messages, possibly received at second or third hand, from different macro level organisations as mutually inconsistent and indeed conflicting.
- Failing to use consistently the language and terminology of Curriculum for Wales: If the
 terminology of the published guidance is not used consistently, there is a real risk of
 misunderstanding and in particular of encouraging the carry-over of attitudes and practice
 from previous policy and practice.
- Using terminology without shared clarity of meaning: If steps are not taken to ensure shared understandings of terminology across suppliers of resources, school and practitioners, there is a risk of superficial approaches to developing practice to support progression.

Capacity building and professional learning

- Focusing on capacity building and learning for only some participants: It is important to
 recognise that all programme participants are simultaneously both learners and experts;
 there is a risk that some may be perceived as being more or less exclusively in one of these
 categories.
- Ignoring capacity building to focus on individual learning: Further development and
 enactment of the curriculum requires capacity building at all levels of the system as well as
 developing the understanding and skills of individuals at all levels of the system. Without
 capacity building, professional learning will only have a limited impact.
- Perceiving learning as a solitary activity: Learning is likely to be less challenging and sustained, and therefore less successful, if it is not planned and carried out through collaborative activity within and across establishments and levels.
- Reverting to old habits: There is a risk that some third party providers of resources may use
 existing models of professional learning (or adapt existing materials), treat users as passive
 consumers of others' messages and thus fail to recognise the importance and strengths of
 co-construction.
- Using a one-size-fits-all model: Capacity building and professional learning must recognise the specific school context, local expertise and prior individual understanding and skills.
- Deskilling rather than upskilling: Related to the last point, there is a risk of participants perceiving professional learning as deskilling rather than upskilling if resources ignore or fail to build on existing skills.
- Offering uncoordinated choice: There is a risk that there may be a plethora of capacity building and professional development which will be uncoordinated and difficult for schools and practitioners to manage. All provision should be aligned with the Professional Standards agreed for all practitioners.
- Finding the silver bullet: There is a risk that some capacity building and professional development will be presented as the single effective solution to all one's difficulty; schools and practitioners should be supported to analyse such offers critically.

Middle tier

There are two aspects to this consideration: one relates to structures, the other to support processes. Middle tier structures can be considered as those located between the national level and the school level, notably consortia and local authorities; school governing bodies occupy an ambiguous position as some may perceive them as part of the middle management structure, others as part of the school. Middle tier support processes can include national initiatives to support schools which act as a bridge or communication channel between the macro level of the system and the micro level¹²⁷. It is important that in both aspects there is clarity and consistency of messaging.

¹²⁷ See Thijs, A. & Van den Akker, J. (2009). *Curriculum in Development* Enschede: Netherlands Institute for Curriculum Development (SLO) concerning these levels.

- Providing excessively detailed support: Middle tier organisations, as they support schools, may provide support that is too detailed and directive and/or prescriptive, thus limiting their in-depth engagement with the Curriculum.
- Inconsistent messaging: National and middle tier organisations may be perceived as, however unintentionally, communicating messages to schools that are mutually inconsistent.
- Confusing provision of support processes: The Government and national agencies provide a
 wide range of support which may appear uncoordinated, leading to confusion among
 schools as to which may be most suited to their purposes or context; important or valuable
 material may be ignored or not fully used.
- Using existing information management systems: Providers of information management systems may be tempted to adjust existing models to reflect the surface structure of Curriculum for Wales, while continuing to use inappropriate models of assessment to approaches to data gathering. This will impact negatively on the ability to use assessment to inform learning and support progression.

Recommendations: Section 12

42. All developers or providers of support resources should be made aware of possible risks, such as those identified in this paper, and of the need to ensure that all support provided should seek to prevent or avoid these risks and/or mitigate any impact from them.

13.Accessibility and adaptability

A number of issues related to ensuring that support is accessible to all and capable of adaptation to meet local need are considered in this section. Two recommendations encompass these points.

Inclusiveness

The concept of universal design was developed originally in the context of architecture and building design as an approach to ensuring that buildings were accessible to all. This approach has been extended into education. While some aspects of this are controversial and open to challenge (e.g. the particular use of neuroscientific concepts and the strong emphasis on technological fixes)¹²⁸, the focus on respect from the first stages of planning onwards for learner diversity relates closely to the principles underpinning Curriculum for Wales. Support resources and materials will effectively and actively engage all users; this will often include the use of multiple modes of representation, engagement and response. This extends further to the recognition of school context, priorities and interests. This will ensure not only that the requirements of equality legislation and associated guidance are met but also that the commitment within Curriculum for Wales to subsidiarity is effectively recognised.

More specifically with regard to the requirements of equality legislation, all resources and materials must be readily available and accessible by all. This implies that web-based material, including 3rd party resources, should meet the requirements of current accessibility regulations and, in accordance with Welsh Government expectations, comply with the WCAG 2.1 AA standard, (e.g. including closed captioning or transcription of all audio and video material). Print materials should meet similar standards and be capable of having their format modified to meet the needs of users (e.g. text-to-speech capacity).

To permit adaptation of content or structure by users to meet the needs of school contexts and the varied prior experience of users, it would be helpful if resources provided by third party organisations are provided under a Creative Commons License, typically Attribution-NonCommercial (CC BY-NC) or Attribution-NonCommercial-ShareAlike (CC BY-NC-SA).

It is likely that, as experience in other jurisdictions suggests, resources may benefit from scaffolding and mediation to support use by practitioners and others. Resources should be designed in such a way as to build in such scaffolding and mediation and to allow others to do so

Mode and format of resources and materials

Resources may be developed and offered in a number of modes and formats. The guidance and principles developed in this paper are applicable to all of these.

The recent Covid-19 pandemic has accelerated the development and use of online resources and materials in all sectors of education: school practitioners, those involved in higher education and those supporting professional development in various sectors have participated in these processes. It is now evident that there is a wide range of programmes and apps available which can promote

¹²⁸ Murphy, M. P. A. (2021). Belief without evidence? A policy research note on Universal Design for Learning. *Policy Futures in Education*, 19(1), 7–12

the approach to capacity building required for the enactment of Curriculum for Wales. Many of these apps are included in suites of provision designed generally to support teaching and learning, currently widely used in schools, and can be readily adapted for use in professional learning. Other platforms have been developed more specifically for use in tertiary education (e.g. Moodle, Blackboard). Others will be independently available programmes which those developing resources may wish to use for specific activities (e.g. Padlets).

Providers of online resources should be encouraged to make full use of the affordances of this range of online platforms and programmes to engage practitioners in reflective professional development, to provide opportunities for collaborative learning and to provide opportunities for adaptation of materials to recognise the school context and experience.

Providers of online resources should ensure that their resources are compliant with UK General Data Protection Regulation (UK GDPR)¹²⁹ and any similar subsequent regulations and should advise practitioners on the importance of complying with these regulations as they make use of resources (e.g. when sharing and considering examples of learner activity and work).

All resources and materials designed for online use should be accessible on desktops, laptops, tablets, iPads and all categories of smart phone and should be accessible through all widely used browsers.

All online resources should be well-tagged, easy to find, easy to navigate across and accompanied by a brief description of purpose and audience.

Ensuring bilingual provision and access

All resources and supporting materials, whether in print or online, written, audio or video, should be equally available and accessible in both Welsh and English. Whenever organisations require to have material translated by a third party, they should ensure that this meets recognised professional standards, such as those established by the Association of Welsh Translators and Interpreters¹³⁰.

Translation should ensure consistency in the use of terminology across both languages as employed in published Curriculum for Wales documentation. Where appropriate, those preparing and translating materials should ensure consistency with the terminology offered by the Welsh Government's Y Termiadur Addysg website¹³¹.

Where reference is made to practice in Wales or practice in Wales is used for illustration, this should draw, wherever possible, on evidence from English medium, Welsh medium and bilingual schools and settings. Video or audio materials should be accompanied by translation into the other language.

Materials in both languages require to meet fully the legally required standards for accessibility noted above.

¹²⁹ See https://ico.org.uk/for-organisations/guide-to-data-protection/guide-to-general-data-protection-regulation-gdpr/

¹³⁰ Homepage - Cymdeithas Cyfieithwyr Cymru

¹³¹ http://www.termiaduraddysg.org/

Alignment with language of Curriculum for Wales

It is important that all resources and materials respect the language used by Curriculum for Wales. This is not only a matter of avoiding opportunities for confusion, important though that is but also because the wording arrived at during the development process has been carefully selected to match the aspirations and intentions of the curriculum and to avoid inappropriate connotations. It is important, for example, that developers bear in mind such matters as:

- The phrase *Areas of Learning and Experience* reflects a very clear intention to structure the curriculum in a new way that extends the concept of learning beyond the learning in classrooms of subjects to include a wider range of learning and experience, wherever gained.
- The statements of *What Matters* do not represent the same concept as *Big Ideas* or *Threshold Concepts*, phrases which have their own specific meanings.
- The phrase *Descriptions of Learning* results from considerable debate which resulted in its replacing the original *Achievement Outcomes*, considered to have inappropriate connotations.
- The widely used phrases Assessment of Learning and Assessment for Learning were replaced as no longer fully appropriate to describing the purposes of assessment within this Curriculum; the phrases Supporting individual learners on an ongoing, day-to-day basis, Identifying, capturing and reflecting on individual learner progress over time and Understanding group progress in order to reflect on practice are employed to match the aims of the Curriculum.
- The word *moderation* has been superseded by *Developing a shared understanding of progression within and across schools* to avoid the connotations acquired by the former term in the Welsh context.

Those developing resources and materials should respect such decisions and not attempt to retrofit development in Wales to models used previously or elsewhere.

Ensuring consistency of language and terminology is important across English and Welsh as well as within each language.

Recommendations: Section 13

- 43. Those developing support resources and materials must ensure that these are accessible and of greatest benefit to all users through:
 - designing resources and materials capable of being adapted for use in different contexts by users with different prior experience
 - ensuring opportunities for users to draw on their own experience and the experience of others to stimulate and inform reflective thinking
 - providing scaffolding and mediation to support user engagement with resources
 - recognising the requirements of equalities legislation
 - making use of relevant guidance on ensuring accessibility in print and online
 - wherever possible, facilitating flexible use and adaptation of materials through publish these under a Creative Commons License

- ensuring all resources can be accessed through a variety of modes and multiple platforms
- making full use of the affordances provided by online platforms and programmes to engage practitioners
- observing the requirements of the GDPR and any similar policies
- providing all resources and materials to the same high standard in both Welsh and English
- aligning vocabulary and language usage in both languages with that of Curriculum for Wales and associated documentation.
- 44. It may be appropriate for the Network to consider the development of a writer's guide or similar document outlining key principles to provide a ready reference source for those developing resources or materials.

14. List of recommendations

Section 3: Definition and purpose of resources and supporting materials

- The principles developed in this paper apply to support resources for all within the education system, whatever their role or organisation, as they carry out their responsibilities for the development and enactment in schools of Curriculum for Wales.
- 2. The recommendations of this paper may be used by the Network to develop guidance and quality assurance arrangements for other organisations who wish to develop resources to support Curriculum for Wales, whether volunteered or nationally or locally commissioned.
- 3. Resources and materials designed to support the development of Curriculum for Wales should:
 - be informed by a recognition of the importance both of capacity building (systemic and institutional) and of professional learning, including recognising that these two aspects are inextricably linked.
 - be aligned with the principles and model of capacity building and professional learning developed by the Welsh Government in its statements on Education: Our National Mission, on Developing Schools as Learning Organisations and on Professional Standards for teachers, leaders and those assisting teaching.
 - embody in themselves the principles of collaboration and co-construction established in the processes of developing Curriculum for Wales at earlier stages.
 - employ collaborative learning approaches which encourage all participants to share responsibility for capacity building and which afford all participants active roles in contributing their experience and expertise to developing their own professional skills and those of others
 - provide space, as users engage with key principles, to apply them appropriately to their own context, which permits the recognition of the specific characteristics, capacities, strengths and needs of different contexts and individuals; opportunities for adaptation to meet local interests and needs should, where possible, be readily available
 - provide a variety of activities to engage practitioners and, in so doing, draw on and make
 full use of the affordances inherent in a range of media, including those afforded by digital
 technology, which support the model of capacity building and professional development
 required by Curriculum for Wales.
- 4. All resources intended to support the enactment of Curriculum for Wales in schools should contribute to developing understanding of the fundamental curriculum principles, to developing understanding of how these inform the organisation and structure of the Curriculum and to supporting the growth of skills in applying this understanding to underpin the school's curriculum and learning planning.
- 5. There may be specific issues associated with individual Areas of Learning and Experience, with particular stages of schooling (e.g. early years, school qualifications) or with particular educational contexts (e.g. PRUs) which may need to be addressed through specific resources; these also should be informed by the same common principles as more generic resources.

Section 4: Curriculum for Wales is innovative, ambitious and challenging

- 6. Resources and materials designed to support the development of Curriculum for Wales should recognise that resources developed for use in another education system or for a different period in Wales cannot be simply retrofitted into the context of Curriculum for Wales.
- 7. The legacy of previous policy and practice requires that all resources designed to support Curriculum for Wales should consistently and clearly reference and embody the values and principles which have informed development to date if they are to successfully develop understanding of these and avoid promoting superficial change.
- 8. To ensure full recognition of these fundamental concepts and principles support resources should draw on and, as appropriate, make reference to all aspects of the Curriculum for Wales Guidance including the sections entitled 'Designing your curriculum' and the section on assessment.

Section 5: Curriculum for Wales is a purpose-led curriculum built on a shared vision and aspirations for every child and young person

- Resources and materials designed to support the development of Curriculum for Wales should:
 - ensure that all involved engage fully with the rationale for the purpose-led curriculum before moving into detailed planning
 - support schools and practitioners to ensure that the realisation of the Four Purposes is clearly, consistently and explicitly integrated into their curriculum planning processes and thus reflected ultimately in all plans for learning
 - recognise that the Four Purposes are not themselves directly 'taught' independently of other aspects of the curriculum.
- 10. Resources should recognise and make clear, wherever appropriate, how the requirements of other policies, relevant to schools and learners, can be addressed in the processes of planning a curriculum designed to ensure progression towards the Four Purposes.

Section 6: Structure and organisation of Curriculum for Wales

- 11. Resources and materials designed to support the development of Curriculum for Wales should support schools and practitioners as they plan the school's curriculum to develop and make use of their understanding that:
 - the Four Purposes underpin all aspects of the curriculum and provide coherence for planning, for practice and for the experience of learners
 - the Four Purposes are developed through curriculum and lesson planning which selects content, pedagogical approaches and assessment activities which permit learners to display the attributes and capacities required by the Four Purposes and which promote further progression towards them
 - there is no one route to developing the Four Purposes but rather a multiplicity of pathways which schools and practitioners can develop within the curriculum structure.
- 12. Support will be welcome which develops the capacity of schools and practitioners to plan progression in learning of concepts, skills and attributes within and across What Matters statements and Areas of Learning and Experience and develops practitioners' understanding of the practices of meaningful multidisciplinary and interdisciplinary learning.

- 13. Resources and materials designed to support the development of Curriculum for Wales should:
 - employ the term 'Descriptions of Learning' in full alignment with the use established in Curriculum for Wales and avoid, purposefully or accidentally, equating an understanding of this term with that of achievement outcomes in other curricular models
 - develop the capacity and professional skills required to use the Descriptions of Learning to plan the school's curriculum and avoid either over-specifying interpretation or breaking the Descriptions of Learning down into smaller steps
 - address any risk that the Progression Steps can be equated with Key Stages or any similar structure associated with prescriptive standards
 - support the integration of planning of progression in the mandatory curriculum components, the mandatory cross-curricular skills frameworks and integral skills in the planning of learning and progression through the structure of Areas of Learning and Experience and statements of What Matters.
- 14. Support resources should develop the capacity of schools and practitioners to plan curriculum pathways and develop learning intentions and experiences which:
 - recognise and make effective use of the local context
 - support each learner to build on prior learning
 - recognise learning from participation in all aspects of the school life and ethos
 - appropriately value learning that takes place beyond the school
 - provide support, where needed, for individual learners.

Section 7: Progression in learning, rather than coverage of content, is at the heart of Curriculum for Wales and informs its structure

- 15. Support for development and engagement processes should provide opportunities for informed discussions amongst policy makers and practitioners to enable them to explore and to discuss the inter-relationship of curriculum, pedagogy and assessment in promoting progression.
- 16. It is necessary to build capacity, systemic and individual, to ensure a shared understanding of fundamental principles and structures as schools take forward planning the school's curriculum and classroom learning experiences if this is to fully realise the aspirations of Curriculum for Wales.
- 17. Resources and materials designed to support the development of Curriculum for Wales should:
 - develop practitioners' capacity to articulate their understanding of progression in learning by considering how detailed evidence of learning relates to the Principles of Progression and the Descriptions of Learning
 - recognise that the Principles of Progression usefully inform progression in learning related to the processes of learning and to the mandatory elements and skills frameworks as well as in learning related to the Areas of Learning and Experience
 - support schools and practitioners in using the Principles of Progression to plan ongoing opportunities for learners to develop progression in the processes as well as the outcomes of their learning and the capacities and attributes embedded in the Four Purposes
 - develop the capacity of schools and practitioners' professional skills to make full use of all five Principles of Progression as they plan a curriculum and learning experiences which promote immediate and longer term progression.

- 18. Resources and materials designed to support the development of Curriculum for Wales should develop the capacity of schools and practitioners to:
 - use the route map described by the Descriptions of Learning to create progression pathways which recognise the local context and which accommodate the needs and interests of individual learners
 - develop finer grained descriptions of progression which clearly locate immediate or short term progression in a bigger picture of progression over the longer term
 - use the findings of research on the ways in which finer grained progression pathways can be integrated into the route map provided by the high level statements of the Descriptions of Learning.
- 19. Resources which effectively support schools and practitioners in planning their curriculum should recognise fully that, through integrated and coherent embedding of cross-curricular skills and themes, curriculum and lesson planning should lead to learning experiences which afford learners support to progress in all aspects of knowledge and understanding, skills and capacities included within the Curriculum.
- 20. Resources and materials designed to support the development of Curriculum for Wales should develop the capacity of schools and practitioners to integrate at all times the selection of content, pedagogy and assessment practice in curriculum and lesson planning which will create learning experiences which ensure progress in learning.
- 21. Resources and materials designed to support the development of Curriculum for Wales should develop the capacity of schools and practitioners to:
 - make use of the alignment between the twelve pedagogical principles and the five Principles
 of Progression in designing the school's curriculum and learning experiences
 - develop and draw on a wide repertoire of teaching and learning approaches from which to select those appropriate to the specific knowledge and understanding, skills and/or capacities which it is intended that learners are to develop.
- 22. Resources and materials designed to support the development of Curriculum for Wales should:
 - explicitly recognise and make full use of the detailed guidance afforded by the Curriculum for Wales Guidance on the relationship between assessment and progression
 - build the capacity and skills required to ensure that assessment activities are planned and used to inform learners and practitioners on the means by which learners can make progress in both the processes of learning and the outcomes of learning
 - include opportunities for developing practice which provides opportunities to involve learners in contributing to developing learning intentions and success criteria, using these to review their learning and thus actively developing their understanding of progression
 - include support for developing practice which will contribute to sharing a longer term view of progression with learners, to supporting them in locating their current progression within this and to helping them articulate this understanding.
- 23. Providers of support resources and materials should understand the complexities involved in the processes of recognising wider achievement if they are to develop fully the capacity and skills required by practitioners to involve learners in discussion of learning and progression, using evidence from beyond the classroom.

24. Resources designed to support the use of the Principles of Progression may employ illustrations of their realisation in practice to stimulate reflective thinking but should not prescribe solutions or provide models of practice to be imported uncritically from one context to another.

Section 8: Assessment which promotes progression is forward facing to inform future learning rather than backward facing to judge and record attainment to date

- 25. Resources and materials designed to support the development of Curriculum for Wales should develop the capacity of schools and practitioners to:
 - understand the significance of the move from conceiving assessment as primarily backwards facing to judge and record past learning to forwards facing to inform further successful progression
 - build on and contribute to developing practice aligned with the three key roles to be played by assessment in Curriculum for Wales
 - develop understanding of the breadth of evidence which can be drawn on in the course of learning to demonstrate achievement of intended learning and to inform the next stages of learning
 - develop practice in assessment as on-going classroom activity which affords enhanced opportunities for the gathering and discussion of evidence of learning processes and achievements
 - develop understanding of the concepts of the validity, reliability and dependability of assessment evidence which recognise the range of types of evidence on which practitioners and learners can draw in determining validity and dependability
 - develop professional understanding and skills related to the key role of feedback and dialogue in supporting progression, including the implications of this for relationships within the classroom and the skills needed to initiate and maintain such dialogue.
- 26. The role of the learner in the production, selection, justification and presentation of evidence for use in different contexts should be recognised in support resources in accordance with the quidance provided in the assessment section of Curriculum for Wales Guidance.
- 27. Any management information system intended to support schools in Wales must be designed in full accordance with the principles that underpin the Curriculum for Wales, including those related to assessment.
- 28. Support for the development of practice related to the use of a learning portfolio should promote understanding of its prime role as a support for reflection and information to guide further learning.
- 29. All organisations at all levels of the education system should take steps to ensure that all policies, support resources and materials related to any use of assessment evidence are clearly consonant with the values and principles of Curriculum for Wales and associated documentation and aligned with the guidance published by the Welsh Government to support the design of the curriculum at all levels.

Section 9: Development of this Curriculum requires subsidiarity, co-construction and shared learning within a culture of enquiry

- 30. Resources and materials designed to support the development of Curriculum for Wales should develop the capacity of the education system, schools and practitioners to understand and make use of the concept of subsidiarity in designing the school's curriculum within the national structure of expectations.
- 31. Resources and materials designed to support the development of Curriculum for Wales should develop the capacity of the education system, schools and practitioners to understand and make use of the concept of co-construction as a key feature of the development process.
- 32. Co-construction requires continuing support of various types if it is to promote sustainable meaningful change; resources and materials should afford practical support for developing the skills of all participants required to ensure their full and effective participation in the processes of co-construction.
- 33. Resources and materials designed to support the development of Curriculum for Wales should:
 - afford opportunities for users to draw critically on relevant information derived from all three areas of policy, research and practice
 - make use, where appropriate, of suitable scaffolding or means of mediating to ensure that
 participants from all three communities share common understandings of concepts and
 terminology as they bring together evidence from policy, practice and research
 - employ research as a means of encouraging reflection rather than as prescribing detailed curriculum plans
 - afford space and support for the contribution of the experience, understanding and skills of practitioners to be respected and reflected on.
- 34. Support, including resources and time, should be afforded to support a range of practitioner networks: e.g. local and national; focused on a stage or on a curricular aspect; focused on pedagogy or assessment; bringing together similar schools; bringing together school leaders..
- 35. All national agencies should regularly consult together with relevant Welsh Government directorates to ensure consistency of messaging in all of their support activities and should take steps to ensure that those who speak on their behalf are aware of this responsibility.
- 36. Middle tier organisations should provide support that facilitates critical engagement and builds capacity in schools rather than providing support which inadvertently may limit such opportunities.
- 37. Consideration should be given to ensuring that school governing bodies are aware and supported in carrying out their responsibilities in this area.
- 38. Resources and materials designed to support the development of Curriculum for Wales should:
 - support the development of learning communities which involve a range of participants in active critical learning which draws on a wide range of evidence
 - build system capacity and develop a range of skills to ensure that all participants have opportunities and can use these to share understandings of professional experience and expertise of policy and of research.

39. The development of a culture of enquiry across the education system requires the provision of dedicated support and resources.

Section 10: Developing learner voice and participation

40. Support for schools and practitioners is important in building capacity and developing professional skills in creating, discovering and using opportunities which allow the meaningful expression of the learners' voice at all stages and levels of planning as well as within the ongoing learning and assessment practices in every classroom.

Section 11: Identifying specific needs for resources

41. Those commissioning and developing support resources should pay due regard to ensuring that support is available for practitioners as they address issues specific to individual Areas of Learning and Experience, such as those identified in this paper.

Section 12: Risks

42. All developers or providers of support resources should be made aware of possible risks, such as those identified in this paper, and of the need to ensure that all support provided should seek to prevent or avoid these risks and/or mitigate any impact from them.

Section 13: Accessibility and adaptability

- 43. Those developing support resources and materials must ensure that these are accessible and of greatest benefit to all users through:
 - designing resources and materials capable of being adapted for use in different contexts by users with different prior experience
 - ensuring opportunities for users to draw on their own experience and the experience of others to stimulate and inform reflective thinking
 - providing scaffolding and mediation to support user engagement with resources
 - recognising the requirements of equalities legislation
 - making use of relevant guidance on ensuring accessibility in print and online
 - wherever possible, facilitating flexible use and adaptation of materials through publish these under a Creative Commons License
 - ensuring all resources can be accessed through a variety of modes and multiple platforms
 - making full use of the affordances provided by online platforms and programmes to engage practitioners
 - observing the requirements of the GDPR and any similar policies
 - providing all resources and materials to the same high standard in both Welsh and English
 - aligning vocabulary and language usage in both languages with that of Curriculum for Wales and associated documentation.
- 44. It may be appropriate for the Network to consider the development of a writer's guide or similar document outlining key principles to provide a ready reference source for those developing resources or materials.

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