

ECAD4014 - Developing professional literacy, numeracy, and digital competence.

Question - Demonstrate how cross-curricular teaching and learning can influence in-depth skills and understanding. Underpin this with reference to relevant research, a detailed lesson plan and an enhanced provision material.

	Targets Set;	How I feel I have reached this/improved this target throughout this assignment.
1	Read more widely	Rather than looking for books online and in Carmarthen library, I ventured to Swansea Library once home to see if I could find any books that would widen my knowledge.
2	Aim to explain how ideas from Literature link together.	I feel that I have been a lot more critical through this assignment. Backing up a theorist with another theorist. Or quite the opposite and identifying a valid argument.
3	Proofread all written expression with more care.	I took more time to complete this assignment, reading back through my work after every paragraph I completed.

The main purpose of this assignment is to highlight the importance of cross-curricular teaching within a primary school setting, and how this further affects a child's learning and progress. Over the last four years, the curriculum for Wales has changed dramatically. Many of the changes made put the child's well-being and learning at the centre. Ensuring the children of Wales have the best education possible. When laying out the new curriculum recommendations, Professor Graham Donaldson provided the government, schools, and the public with the document 'Successful Futures, 2015'. This document provided healthy research into the old curriculum and where the Welsh education system was failing to provide pupils with a 'well-rounded education.' The new curriculum introduced the new six AoLEs (Areas of learning and experience), as well as the new 'Mandatory cross-curricular skills' (Welsh Government, updated 2024). The cross-curricular skills are the 'Literacy and Numeracy Framework' (Referred to as LNF, throughout this document) and 'Digital Competence Framework' (Referred to as DCF, throughout this document) (Welsh Government, 2022). Before we move into more depth surrounding cross-curricular skills, we must have a clear understanding of the term 'cross-curricular

Looking at Barnes (2015), he suggested that cross-curricular is "“when the skills, knowledge and attitudes of several different disciplines are applied to a single experience, problem, question, theme or idea”- And Plato (1995) Also agreed that cross-curricular refers to the 'emotional, practical and intellectual skills, music and movement, drama and literature, philosophy' (Millward,2017). Many theorists have published, supporting the use of cross-curricular skills as opposed to the primary subjects - ' Plowden(1967), Froebel's play theory – highlights how many skills can be linked in an unconventional environment of

learning (1836) but also we could look at Maria Montessori and her theory on risky play, and how many different cross-curricular skills are highlighted positively within her theory. Unbeknown to many teachers, we unconsciously include many cross-curricular skills in our lessons. However, for many teachers in Wales, looking outside of the box when it comes to creativity is something they have not had to do before – Spooner (2014) said that ‘cross-curricular teaching, puts the child at the centre of learning, however, requires a whole different approach to learning’. Cross-curricular learning however allows children to be ambitious capable learners (Donaldson, G, 2015 p 106). Another positive is how the children can connect by exploring clear and relevant links across the curriculum. (Terry, 2015, p40). Throughout my time on enrichment days, it was clear to me that cross-curricular learning within a foundation learning perspective is prominent. From the water area to the role-play areas. They all had important aspects of literacy, maths, and digital competence. The continuous provision provided by the class teacher within the weekly plan also showed a deep amount of cross-curricular development for the children. As Donaldson said in Successful Futures 2015 - ‘literacy, numeracy and digital competence should be the responsibility of all teachers. These are so fundamental to thinking, learning and life that they should be developed and reinforced across the curriculum. (Prof Donaldson, G, 2015, p110). But there are still theorists such as Hurst (1974) who still have a strong hold on the educational community, that children, should be taught in subjects’(Barnes, 2015, p32) - However, there are many alternating opinions concerning whether subject discipline should remain (Gardner, 2004) and whether cross-curricular learning does ‘propel’ (Rose, 2009) - Ofsted (2011) - show clear links that subject disciplines and cross-curricular can work in line with one another to give a child a well-rounded education. (Driscoll, P, p 223).

Throughout history, schools in Wales have been clouded by the theory of ‘subject discipline’ (Kerry, 2015, p29). Throughout the ‘Successful Futures’ document, Professor Donaldson acknowledges the ‘importance of literacy and numeracy across the whole of the curriculum. - (Donaldson, 2015, p109) Therefore, when the latest curriculum was introduced in 2022, it was agreed that Literacy and Numeracy have the same importance and should be implemented throughout every AoLE. (Donaldson, 2015, p49). When looking at teaching within my bridging experience, I noted the number of cross-curricular skills used within the Nursery setting. - Examples of these are; the continuous provision, which is a cafe area, in which children complete role play (Expressive Arts), have a cash till (Mathematics and Numeracy) a whiteboard, to take orders from customers (Language and Literacy) Role play of job roles; i.e., chef, waiter/waitress and cashier. (Humanities – AoLE what matter’s statement ‘Events and human experiences are complex, and are perceived, interpreted, and represented in diverse ways’) (Welsh government, 2002, np). When laying

down recommendations, a report by Barnes 2011 engaged with cross-curricular teaching as a 'way of widening the curriculum' (Driscoll,2011). - Looking deeper into this, when Donaldson put the recommendation of six AoLEs and 2 cross-curricular skill frameworks into place, it was for them to complement the way teachers in Wales already teach. LNF framework was already in place before Donaldson's review of 2015. However, it lacked the child-centred approach desperately needed to raise our PISA scores. It is believed that the old curriculum 'gave children the mechanics on how to write, but no substance to write about...' (Donaldson, 2015, p42) - What I take from this quote is whilst the Welsh government had the best intentions in giving the children the skills of reading and writing it was never correctly implemented in lessons other than Language and Literacy. Regarding cross-curricular skills, children in Wales are supported along the DCF and the LNF. Within these frameworks are what is known as ABC steps and Progression steps 1-5. The ABC steps are tailored to children who have Additional learning needs, these milestones are set to be more achievable, and lead towards progression step 1. (Welsh Government, 2022) Where are progression steps 1-5 and targeted to be completed by the age of 16, however 'they are broadly expected to be completed in a timeline of 5,8,11,14,16.' (Curriculum for Wales, 2021). The progression steps and ABC steps are used in AOLE's as well as both cross-curricular frameworks. The world as we see it today is evolving, this is where digital competence is needed. Children live in a digital world more now than ever. After the lockdown of 2020, children today are even more familiar with hybrid learning. (Donaldson, 2015). The curriculum has four key values, one of which is ensuring that 'pupils are ready to lead fulfilling lives as valued members of society,' all teachers must partake in the framework and deliver it within schools. However, every school in Wales has identified an IT Co-ordinator, who overlooks the whole school's progress in Information Technology. Such as iPads, Chromebooks, Sphero and beebots. This teacher will pay attention to how best these exciting resources can be used in the lessons. Although these resources are fantastic, it can be exceedingly difficult for schools with a tight budget to be able to access these resources, even more so if class sizes are big. This means fewer resources to go around children. Barnes also quoted that children's 'creativity' is now suffering. Rather than children being proactive in their learning, they are now 'fact-led' (Bettlestone,1998) Barnes, 2018 p103). However, it is said that children ought to be a part of the digital world, as it is 'hot knowledge' and it could in fact impact how the child is accepted outside of the school's wall, and this too will affect employability when the children leave school. ~ (Gove, 2009) Barnes, 2018, p104). As said in different terms above, the cross-curricular strengths of today, outweigh the outdated subject-discipline approach due to the world we live in today (Barnes, 2018, p57) even more so now this cross-curricular approach is embedded in the new curriculum for Wales (Donaldson, 2015, p109)

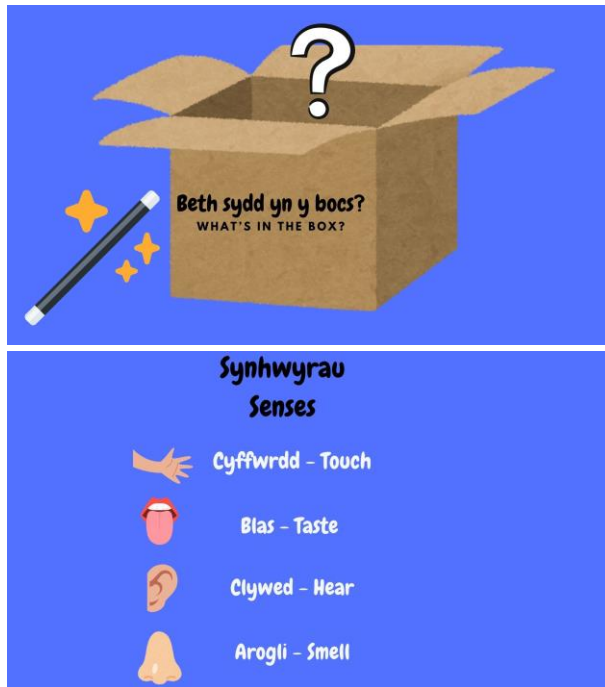
Within primary schools, more so within foundation learning, learning is mostly project-based and hands-on allowing the children to be more in control of their lessons as opposed to reading facts (referring back to the comment re 'fact-led vs creativity') Project led cross-curricular learning allows the children to experience collaboration, an adult based skill (Solomon,2003)– which in turn is a part of the four purposes of the Welsh curriculum – ready, capable learners When looking at my time in bridging and making an enhanced provision resource suitable, it has highlighted how much the children in the nursery class enjoy role-play and games. - The current theme is 'Who am I?' As highlighted by the teacher, overall, this is a what matters statement 'Enquiry, exploration and investigation inspire curiosity about the world, its past, present and future' (HUM1) and links cross-curricular with health and wellbeing (HWB1) - 'Developing physical health and well-being has lifelong benefits.' (Welsh Government, 2022, np). During this theme, there is plenty of opportunity for play and a child-centred approach as suggested by Donaldson (Donaldson, 2015, p44) which engages the children to dive deeper. (Barnes 2018). To be a teacher in today's Welsh curriculum you must be an 'allrounder' - (Kerry,2015) Alexander (2009) has also argued that now more than ever teachers need to move from 'recipes to repertoire' (Kerry, 2015, p67) It was noted that the children in the class also love cooking, and very few children, shy away from trying new foods. - As a class, during winter they also completed a winter-themed 'Beth sydd yn y boc' - One child per day leading up to the Christmas break was chosen to come up to the box and choose a prize but blindfolded. I wanted to put the two tasks together and create a fun play-based lesson in knowing this would suit the class's interests and keep them focused on the task as much as possible. Whilst most of the PowerPoint is in English – Successful Future states that more teachers within Wales need to add simple Welsh into their lessons. Most of the children in the nursery class are aware that 'Bore da' is a greeting and 'sut wyt ti' is how to ask how you are. When welcoming the children into school in the morning. The enhanced provision within this task is the PowerPoint. Often, with a TA's assistance (which is limited) the children can navigate the tablet which controls the PowerPoint. - As we have the physical box and the PowerPoint explaining the steps the children need to follow, all the teacher is expected to do is minimal i.e. change the food in the box. Ensuring most of the tasks set below in the appendix are child-led, is imperative as we as demonstrate as teachers, that we are equipping our children for the future as well as highlighting the fact we are making them ambitious capable learners.

As touched upon at the start of the essay, the curriculum for Wales was developed to improve education for the children of Wales but also to ensure that the teachers of Wales are most up to date with pedagogy and deliver the best lessons they can. As a student

teacher in Wales, we have been introduced to the professional standards (QTS) (Welsh Government 2022). Within the professional standards, there are five standards for teaching and leadership. (Collaboration, Innovation, Professional learning, leadership, and the biggest standard is pedagogy which is of utmost importance (Welsh government,2022) Looking at pedagogy, within professional standards, cross-curricular themes land in ‘advancing learning’. When I go on PTE, I will ensure cross-curricular is a mandatory part of my teaching - (The use of cross-curricular themes is routinely employed and the range exploits complex learning which is made explicit through effective reflection on learning.’) (Welsh government, 2022) Looking overall at my time in schools as well as literature the movement to cross-curricular learning from subject discipline is not going to be easy for all teachers in Wales. For example, moving our lessons away from the subject-based, and instead planning around the needs of our children in the classroom. (Spoonier,2014) However, equipping Newly qualified teachers with the skills to influence cross-curricular teaching within their placement schools and eventually their jobs will impact the children’s quality of education, as well as ensure the curriculum for Wales is used correctly. I truly do believe that with the backing of many theorists throughout this essay, there is so much more ‘real world’ opportunity for us as teachers to give our children the best education possible.

Appendix 1 – Enhanced Provision Resource

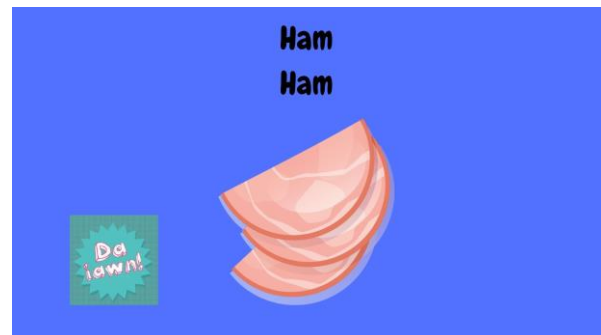
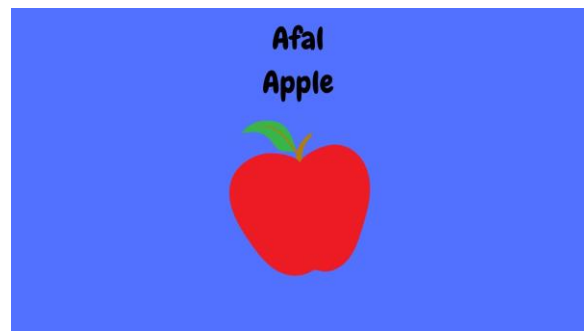
Activity One – Beth Sydd yn y bocsy?



Here the teacher shows all the senses and how they are used when completing the task. The teacher/TA shows WILTS (What I'd like to see). For the task to be completed correctly, a success criteria by showing the children a WILTS must be in place.



Every PowerPoint shows the sense that needs to be used to guess. Originally the PowerPoint showed the empty box, the lenses, and the question 'What's in the box?', if the pupil needed the prompt, the Welsh and English phrased guesses arrived- This is an enhanced provision, although it can be skipped. It is a wonderful way to get the children to think, pair share, discuss with their peers and improve their Language, Literacy, and communication skills in both English and Welsh This continues throughout the whole of PowerPoint.

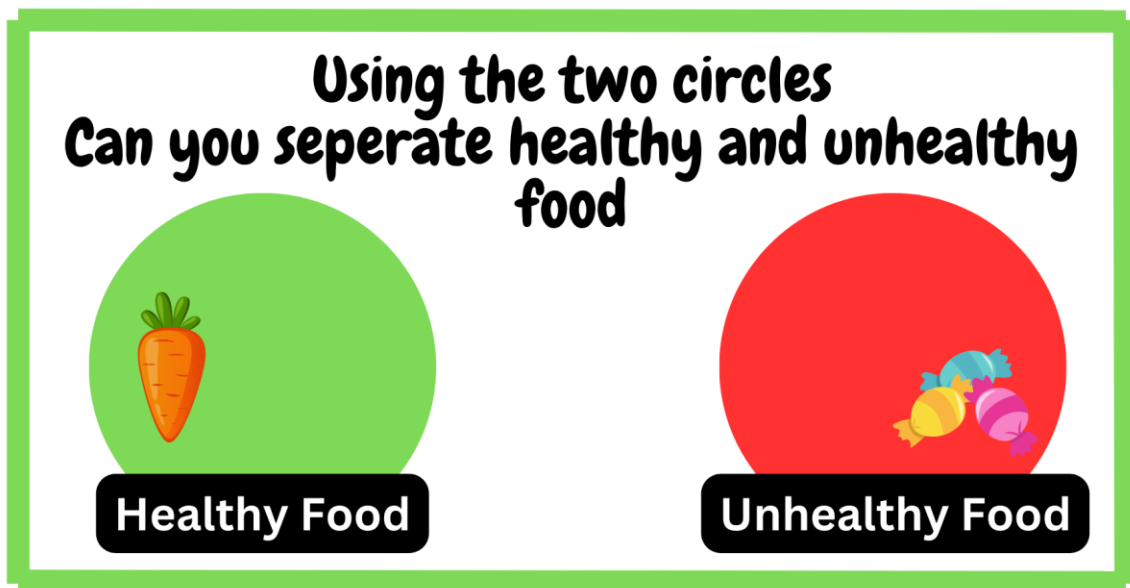




Transition from activity 1 to activity 2, proof

of continuous provision.

Activity 2 – Demonstrating an understanding of separating healthy and unhealthy foods.



I have added WILTS so that the children have examples of what is and is not healthy. Therefore, this task is enhanced provision as it can be completed without any input from the teacher unless they are called upon. From my experience on enrichment days, tasks like this in nursery are assessed by the teacher on a 1 to 1 basis. The children are then traffic-lit based on whether they can demonstrate correct understanding.



Healthy food - Cut and laminate for children to use in task - with the name of the food on the back for help.

Unhealthy foods - Cut and laminate for children to use in task - with the name of the food on the back for help.



Activity 3 – Make a healthy face! (These will be made on paper plates, with materials from the art corner premade to look like food.)

Create a healthy face



**Using all the food on the table,
can you make a healthy food face
like me?**

You could use



for



You could use



for



Appendix 2 – Lesson Plan

Student-teacher:	Lara Curtis	Class / Group:	Nursery
AoLE or Subject:	Health and well-being	Date (please note that this may be a continuous session):	W/C 22/04/2023 3 groups of 7 complete over 3 days. With enhanced provision following along from 26/04/24
Meaningful links to Curriculum (What Matters Statements, Descriptions of learning, 'previous' curriculum...)	Developing physical health and well-being has lifelong benefits - understand the factors that affect physical health and well-being. This includes health-promoting behaviours such as physical activity, including but not limited to sport; balanced diet; personal care and hygiene; sleep; and protection from infection. It also includes an understanding of health-harming behaviours. - Healthy confident individuals		
Meaningful links across the curriculum <i>Links to other AoLEs or the Cross-curricular skills frameworks</i>	Literacy and Numeracy Framework / Language, Literacy and Communication - Reading the board Humanities - 'Who am I? - what matters statement 2' Digital Competency Framework - Use of powerpoint Welsh - The Powerpoint has both Welsh and English phrases and words. Developing and widening the pupils' Welsh medium vocabulary. Science and Technology - 'Senses'		
Personal Targets (targets and consequent impact on learning - refer to any targets that have been identified in the learning journal or weekly reflection meeting and describe the desired impact on learning)			
N/A as of yet.			
Learning Intention <i>'This should focus on the pupils' learning during the lesson, rather than what they will be doing, and should be short, achievable and measurable.'</i> (Crichton, H., and Mcdaid, A. 2016 p. 196)			
By the end of this lesson, pupils should be able to distinguish between 'Smell, Touch, Taste and Hear' and how they can use their senses to distinguish different unhealthy foods, as well as healthy ones. Enhanced Intention:- By the end of the week, the pupils will be able to distinguish between what is healthy food and unhealthy food with a set of pictures given to them.			

What harm bad food can do to our bodies and what makes them 'bad' food
Success Criteria <i>What the pupils need to demonstrate to successfully meet the Learning Intention.</i>
For the pupils to be 'successful' they need to interact with the power points correctly. At the start, they are given a set of instructions and examples of what is expected of them when they are to look into the box. To be successful, following these instructions is important. The instructions set out are simple, with plenty of visuals for the children to understand fully.
Planning for misconceptions: <i>Use this section to anticipate pupil errors and misunderstandings and your planned responses to them.</i>
Not completing the correct task - Smelling the particular food instead of tasting it. Not drinking, smelling or eating enough of the 'Beth sydd yn y bocs' - Showing them a good example of what they need to do. Not guessing the food - Giving the added clue within the powerpoint. The child whose turn refuses - There will be plenty of continuous provision happening around the children as the classroom is open plan, the child is welcome to watch and participate or join in with another activity in the surroundings. Ensure that all children are allergy-free.

SEQUENCE OF TEACHING & LEARNING <i>(Add or remove rows below as appropriate)</i>				
Timing: <i>Break down timings into groups if appropriate, ensure pupils are 'doing' quickly and that transitions are taken into account</i>	Role of the teacher & support staff: <i>e.g., key questions, retrieval of prior learning, modelling and explanations, checking to understand, planned use of additional adults.</i> <i>Choice of pedagogical model or of the 12 pedagogical principles</i>	Pupils' learning and activities: <i>What will the pupils be learning to do and what activities / resources will facilitate this?</i> <i>Please refer to Foundation Learning planning document for details of continuous provision.</i>	Inclusive Strategies (including differentiation): <i>Reasons for and details of scaffolding.</i> <i>Types of representation in tasks.</i>	Check what pupils know, understand, and can do: <i>Key questions, types of retrieval practices, self and peer assessment opportunities, purposeful AfL strategies, live marking opportunities, planned feedback.</i>
5 minutes	Teacher - To call all of the class to the carpet after tooth brushing TA1 - Encourage all children to the carpet TA2 - Setting up 'bocs' in the centre of the carpet	Following set instruction laid out by the teachers and understanding routine, the routine for the day is clearly laid out and labelled on the wall. The plan of the morning is laid out in visuals so it is accessible for all in the class. - In this case, continuous provision is not necessary. Children who are identified with ALN are on a 121 basis facilitated by a plan already in place with specialised TA's. During this time, they have a routine in place. After tooth brushing they move onto welcom.	Usually in this case, the scaffolding is showing a good example. TA1 usually sits down on the carpet organising the children and showing them how they should be sitting.	'Can you show Miss Curtis how we sit quietly' 'Can we make sure we leave enough space for all of our friends' '
15 minutes x3	Teacher - Separating the children into 'focus groups' 7 per group (21 in class if all present. 3x groups) Making sure group Snake is sitting on the carpet.	Group Snake - Sitting on the carpet, with the 'bocs' in the middle of the carpet and the powerpoint in the background. - Touching mostly HUM1	Scaffolding is dependent on group ability in this task. Group Snake, should	How does that feel 'share with your partner what your guess is' Do you like this food

Rotating the groups around activities and support staff.	TA1 - Take group Ants to the block building area and complete 'seperating task' evidence to be placed into the class book at the end of the day. Photos of the children trying to complete the task. TA2 - Take group 'lollipop' to the messy play area to complete 'my healthy plate' activity continues from week commencing 15/04.	Group Ants - Completing separating task, instructions, WILTS all available and the children in the gorup are capable of following the visual instructions, as well as verbal instructions set out by the TA Group Lollipop - Completing task 3 - 'my healthy plate' with preset materials on the table and two WILTS the children are to make 1 happy face plate each, instruction are visualised, but group lollipop do need some extra help to remain on task.	not any more additional help to complete the task. Most of the children inn the group are able to follow instructions and complete the task with inor adult input. However there is an adult present. Group lollipop and ant both have an extra TA in the room. The teacher and TA will be needed to help a little more with instructions, and where possible encourage the children more to keep on task. INcluded in the instructions for activity 2 and 3 is visual istructuions, however in activity 1 there is clues to help the chidren guess the food.	What is your favouritte healthy food What makes this food unhealthy Can you eat lots of unhealthy food to keep fit 1 on 1 assessment will take place at the end of the week to assess whether the children have improved their knowledge
30 minutes	Teacher - Once all 3 rotations are complete, the enhanced and continuous provision set up around the room is to be used for 'exploring time.' TA1 - Ensure all healthy and unhealth foods are secured away as these will be needed to be used for assessments at the end of the week for evidence of progression when the whole class completes the task on a 1on1 basis. TA2 - All remaining materials leave out, as the children are able to reuse these materials to create any drawings or colourings they like during the allocated 'exploring time' TA3 from reception - manning outside time,	Outdoor time - The children will have been indoors from the moment they have walked in. So we allow 8 children at a time outdoors in the discovery area with the bikes. Before they come in the, the cars and bikes are allocated a number space, the children must 'match' thei bike to the parking space. This is a group task done before they come indoors for milk and mindfulness. Water area - What sinks and floats - Science and technology - our next theme is nature and the world around us. We are working on a easy transition across to the new topic. Role play - Cafe area and post office, LLC and also the humanities side. Understanding different roles and jobs, and that everyone in the world has a purpose and a role to complete.	Children are free to roam around the room with quiet rules in place. Once the 30 minutes is up they are aware the chime will go and they will return to the carpet for milk and mindfulness	

References

- Kerry, T. (2015). Cross-curricular Teaching in Primary School: Planning and Facilitating Imaginative Lessons. 2nd ed. London: Routledge.
- Driscoll, P., Lambirth, A. and Roden, J. (2015). The primary curriculum: a creative approach. 2nd ed. Los Angeles, California: Sage.
- Cook, D. and Finlayson, H. (1999). Interactive children, communicative teacher: ICT and classroom teaching. Buckingham: Open University Press.
- Rowley, C. and Cooper, H. (2009). *Cross-curricular approaches to teaching and learning*. Los Angeles: Sage.
- Barnes, J. (2018). Applying cross-curricular approaches creatively. London: Routledge.
- Donaldson, G. (2015). Successful Futures Independent Review of Curriculum and Assessment Arrangements in Wales. [online] Available at: <https://www.gov.wales/sites/default/files/publications/2018-03/successful-futures.pdf>.
- hwb.gov.wales. (n.d.). Humanities: Statements of what matters - Hwb. [online] Available at: <https://hwb.gov.wales/curriculum-for-wales/humanities/statements-of-what-matters/>.
- CROSS-CURRICULAR SKILLS FRAMEWORKS Revised ABC steps Consultation Document. (n.d.). Available at: https://www.gov.wales/sites/default/files/consultations/2021-05/consultation-document-cross-curricular-skills-frameworks-revised-abc-steps_0.pdf.
- Kelly, L. and Stead, D. (2013). Enhancing primary science : developing effective cross-curricular links. Maidenhead: Open Univ. Press.
- Welsh Government (2023). Pedagogy - Hwb. [online] hwb.gov.wales. Available at: <https://hwb.gov.wales/curriculum-for-wales/designing-your-curriculum/pedagogy>.
- Wallace, B., Berry, A. and Cave, D. (2013). Teaching Problem-Solving and Thinking Skills through Science. Routledge.
- Barnes, J. (2015). Cross-Curricular Learning 3-14. SAGE.
- Spooner, K. (2014). 'leading change from a subject-based to an integrated approach to curriculum management: an examination of andes view school's readiness for curriculum change'..
- Welsh Government (2019). Professional Standards for Teaching and Leadership. [online] Hwb. Available at: <https://hwb.gov.wales/api/storage/19bc948b-8a3f-41e0-944a-7bf2cadf7d18/professional-standards-for-teaching-and-leadership-interactive-pdf-for-pc.pdf>.

- Welsh Government (2022). Cross-curricular skills frameworks - Hwb. [online] hwb.gov.wales. Available at: <https://hwb.gov.wales/curriculum-for-wales/cross-curricular-skills-frameworks>.