

Targets From Previous Assignment	How I Have Met These Targets Within This Assignment
1. To paraphrase the majority of quotations.	Within this assignment I have used less direct quotations and aimed to paraphrase most references used.
2. To support assertions e.g. 'Some say'. Who says? When? Where?	Within this assignment I have made sure to support and strengthen any assertions I make.
3. To engage with essential reading and academic or credible sources throughout assignment.	Within this assignment, I have made sure to engage with many credible academic sources to prove my writing.

ECAD4014 - 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.

Introduction -

Pedagogical Principle eight within the Curriculum for Wales states that “Good teaching and learning makes connections within and across Areas of Learning and Experience” (Welsh Government, 2022). The Curriculum for Wales is organized around six ‘Areas of Learning and Experience’ (AoLE’s). These include; Expressive Arts, Health and Wellbeing, Humanities, Languages, Literacy and Communication, Mathematics and Numeracy, and Science and Technology (Welsh Government, 2022). To ensure a holistic and integrated learning experience, the Welsh Government promotes a ‘cross-curricular’ approach to teaching and learning (Welsh Government, 2022). By including cross-curricular teaching and learning, the curriculum focuses on the development of the ‘whole child’. This idea is centered around the ‘Four Purposes’ that define the Curriculum for Wales, which encourage and strive for children to become;

- “Ambitious, capable learners, ready to learn throughout their lives
- enterprising, creative contributors, ready to play a full part in life and work
- ethical, informed citizens of Wales and the world
- healthy, confident individuals, ready to lead fulfilling lives as valued members of society” (Welsh Government, 2022).

According to the Collins Dictionary, “cross-curricular” can be defined as “a topic that includes contributions from several different disciplines and viewpoints” (Unknown). This refers to an educational approach which does not follow traditional subject boundaries, encourages a more integrated and blended approach, and provides a richer learning experience for pupils as they are prepared for real-life scenarios at a deeper level. Within the Curriculum for Wales, the ‘Cross-Curricular Skills Frameworks’, Literacy, Numeracy and Digital Competence are highlighted as “mandatory cross-curricular skills” (Welsh Government, 2019). To help define essential cross-curricular responsibilities within the ‘Cross-Curricular Skills Frameworks’, the ‘Digital Competency Framework’ (DCF) and ‘Literacy and Numeracy Framework’ (LNF), aim to advise teaching professionals on ways to implement these key cross-curricular skills into their practice (Welsh Government, 2018).

Throughout this assignment, I will evaluate the importance and effectiveness of cross-curricular teaching and learning, as well as the opportunities it can provide, with an emphasis on in-depth skills and understanding within Foundation learning. To aid this, I will evaluate the effectiveness and value of a detailed lesson plan and an enhanced provision material that I have created, with intention to provide an example of effective use of cross-curricular learning within a Foundation Learning activity, that is accessible and beneficial for all abilities within a Year 1 and 2 class.

Additionally, to evaluate the effectiveness of cross-curricular learning within foundation learning, I will be discussing the challenges that may influence the occurrence of cross-curricular teaching and learning within schools. To do this, I will conduct research through credible sources to determine reasons why teaching professionals are not always equipped with essential resources or confidence to incorporate cross-curricular methods into their practice (University of Cambridge, Unknown).

Main Body -

As mentioned previously, the Literacy, Numeracy and Digital Competence Frameworks are essential documents designed to support the implementation of mandatory cross-curricular skills into the teaching and learning of young people in Wales, in order to develop essential skills in both academic and real-world contexts (Welsh

Government, 2022). Kerry states that “a carefully constructed amalgam of areas of learning and subjects’ deepens children’s interests and understanding as they use and apply the knowledge and skills gained in one subject, or area of learning, in another” (2010, pg. 49). This evidences the idea that, for instance, including elements of numeracy in lessons primarily focusing on a differing AoLE, can strengthen a child’s grasp and understanding of that numeracy skill, as it is placed into a new context. This will aid the child’s holistic development, as the pupil can connect between different subjects, providing a deeper understanding of complex contexts and real-world scenarios. Additionally, by integrating the mandatory cross-curricular skills into other AoLEs, pupils are developing their transferrable skills, including problem solving and collaboration, which are skills that can be applied across a variety of scenarios, both academically and in personal life (UNICEF, 2022). Furthermore, a cross-curricular approach to teaching and learning allows pupils to develop a multidisciplinary perspective, which can “potentially sharpen students’ understanding of various subjects” (Aba and Deneme, 2012). This supports the concept of cross-curricular teaching and learning within foundation learning classrooms.

During my Bridging Experience at School A, I was able to observe several cross-curricular learning experiences. An example of this is an activity which the class teacher had named ‘Roll, Add, Read’. This activity took place as the children came into the classroom in the morning. Children are asked to roll two dice, add the numbers, and read a list of words which correlate with each answer, written on the resource game mat. The words written on the mat were the same words the pupils would have in their spelling tests that week. Here, children are developing their numeracy skills as well as their literacy skills, in the form of an enjoyable game.

Although cross-curricular teaching and learning undoubtedly has its benefits in in-depth skills and understanding, there are also many challenges and misconceptions when adopting this strategy into teaching practice. Firstly, teaching professionals often find difficulty in ensuring that all essential content within each AoLE is covered during lessons. To integrate these AoLE’s, educators are required to carefully plan lessons within time constraints (Gozutok and Seckin, 2010, p.4). Additionally, teachers may find difficulty in using traditional assessment methods to capture student understanding across multiple subjects and cross-curricular learning. This means that “assessment for learning techniques have to change in order to match these movements in educational thinking” (Kerry, 2010, pg. 185). This could involve more “feedback and dialogue” (Kerry, 2010, pg. 185), at the time of

learning and experience, which can be increasingly time-consuming for teaching professionals. Lastly, a lack of resources, such as materials and technology, means that schools with limited funding may find it difficult to provide the necessary support required for a cross-curricular learning experience for pupils (Gozutok and Seckin, 2010, p.4). This combined with increasing class sizes, means that the cost and demand to provide a cross-curricular timetable requires increased school funding, which is a challenge for many communities within Wales.

To provide an example of a lesson containing mandatory cross-curricular skills, I have created a lesson plan and corresponding 'enhanced provision' material that I will be able to use during my BA1 placement at School A. As the pupils within School A have been recently focusing on the topic of 'living things' within the 'Science and Technology' AoLE, I decided to create a "Nature Hunt Activity" template for pupils to complete (See Appendix A) around the school grounds, to correspond with the 'What matters statement', "The world around us is full of living things that depend on each other for survival" (Welsh Government, 2022). As the pupils who will be completing this activity are in years 1 and 2, they will be working at 'Progression Step 2'. Here, it states that pupils should be able to "explore relationships between living things, their habitats and their life cycles" (Welsh Government, 2022). Therefore, the learning intention of this lesson is for pupils to recognise different types of plants around the school grounds, acknowledging their characteristics, similarities and differences. During the lesson, pupils are required to work in groups of three to find plant types that correlate with the examples pictured on the template, ticking each box when complete. Shown on the template, there are also several questions for pupils to answer regarding each plant type. I have utilised these questions as a way to integrate the mandatory cross-curricular maths and numeracy skills into the activity. For instance, as pupils have recently been developing their measuring skills using rulers and meter sticks during maths and numeracy lessons, I have included several measurements related 'fill in the blank' activities such as "The Daisy's stalk is ____ cm long" and "The Daffodil's petal is ____ cm wide". By including this element of maths and numeracy within this enhanced provision material, I am meeting the requirements of the 'Literacy and Numeracy Framework', which states that within 'Progression Step 2', pupils should be able to "use standard units of measure: length: I can measure on ruler to the nearest 0.5cm" (Welsh Government, 2022). By utilising this skill within all subject areas such as this 'Nature Hunt Activity', repetition will allow pupils to practice and define the act of measuring with a ruler. Additionally, in order to incorporate elements

of the 'Digital Competence Framework' into the enhanced provision material that I have produced, I have created numerous QR codes which correspond to each plant type. Pupils will be required to use the class iPads to scan each QR code, which will bring them to an information page relating to the plant types (pupils will then discuss this information as a class, creating a table of information/facts). This links to 'Progression Step 1' within the 'Digital Competence Framework', which states that pupils should be able to "recognise and follow instructions in the appropriate order to perform a task" (Welsh Government, 2022). The enhanced provision resource I created is inclusive to all abilities within the Year 1 and 2 Class within School A as the language I used is accessible and comprehensible to each pupil. When introducing the task, I will make sure to repeat instructions several times and ask certain pupils to repeat the instructions back to me to ensure that they have been received and interpreted accurately. Also, an LSA will be available to work alongside a group of lower-ability students during the activity to ensure they remain on-task and confident in understanding the instructions and requirements of the activity. To develop the enhanced provision material, I have produced in Appendix A, I believe that I could include a stronger element of Literacy. For instance, within the LNF, pupils are required to meet standards of "speaking, listening, reading, writing, and translanguageing", as cross-curricular skills (Welsh Government 2022). Therefore, if I was to create a 'Nature Hunt Activity' again, I would make sure to incorporate a task that meets one or more of these requirements. This could potentially include pupils producing a written fact file regarding the information about each plant type they have collected.

Conclusion -

To conclude, when reflecting on this assignment's completion, the importance of cross-curricular learning experiences within primary school education, particularly foundation learning, in terms of influencing in-depth skills and understanding is undoubtedly evident. Although there are definite challenges related to the integration of cross-curricular themes into the curriculum, such as a lack of resources making it difficult to support cross-curricular integration and time constraints meaning that it is often difficult to cover all essential content (Gozutok and Seckin, 2010, p.4), the 'Cross-Curricular Skills Frameworks' remain essential documents to support teaching professionals within foundation learning. As mentioned previously, the use of cross-curricular skills is essential to provide

a holistic approach to learning. Literacy and Numeracy skills are mandatory to achieving this and are described as “key to enabling learners to play an active, confident role in society, well equipped to meet the demands and expectations of life in the twenty-first century” (Welsh Government, Unknown). Additionally, the use of the Digital Competence Framework is essential for children in Wales, as it equips them with the skills and knowledge needed to thrive in today's increasingly digital world (Welsh Government, 2018).

As a result, I will adopt several strategies to incorporate cross-curricular teaching and learning into my teaching practice during my BA1 placement in school A. Within the ‘Professional Standards for Teaching and Leadership’ (Welsh Government, Unknown), it is shown that within the standards of ‘Pedagogy’, teachers are required to meet certain needs in terms of ‘Advancing teaching’. This includes adopting cross-curricular themes, providing real-life authentic contexts, and ‘exploiting subject disciplines in areas of learning’ to meet the requirements of the ‘Four Purposes’ within the Curriculum for Wales. To quantify my understanding regarding the importance of incorporating cross-curricular themes into my teaching practice, I have developed two targets which I would like to meet during my BA1 placement;

1. I will use the Literacy and Numeracy Framework, as well as the Digital Competency Framework to incorporate mandatory cross-curricular skills into as many lesson plans and resources that I produce as possible. I will do this by assessing the timetable that School A follows, to determine where I may be able to make cross-curricular links within the content that is needed to be covered. I will then collaborate with my class mentor to plan interdisciplinary lessons which address the progression steps within multiple AoLEs.
2. I will use real-life authentic contexts to add value to my lesson plans and provide a richer learning experience for pupils. I aim to do this by linking skills to scenarios where they may be useful to implement. For instance, counting coins and money is an essential skill for pupils to accomplish within Foundation Learning. To add real-life authentic context to the development of this skill, I could create a ‘shop corner’ within the classroom, where pupils can use imaginative play to refine their ability to count and confidently use money.

Reference List

- Aba, S. and Deneme, S. (2012), *On Applying the Interdisciplinary Approach in Primary Schools*. Available at: <https://www.sciencedirect.com/science/article/pii/S1877042812013468>. (Accessed: 13th April 2024).
 - Collins Dictionary. (Unknown), *Definition of 'cross-curricular'*. Available at: <https://www.collinsdictionary.com/dictionary/english/cross-curricular>. (Accessed: 11th April 2024).
 - Gozutok, F. and Seckin, M. (2010), *Problems encountered in teaching cross curriculum skills of the science program*. Elsevier.
- Kerry, T. (Ed.). (2010). *Cross-Curricular Teaching in the Primary School: Planning and Facilitating Imaginative Lessons* (1st ed.). Routledge. <https://doi.org/10.4324/97802038402>
 - Welsh Government. (2019), *Cross-Curricular Skills Frameworks*. Available at: <https://hwb.gov.wales/curriculum-for-wales/cross-curricular-skills-frameworks>. (Accessed: 10th April 2024).
 - Welsh Government. (2022), *Curriculum for Wales*. Available at: <https://hwb.gov.wales/curriculum-for-wales/>. (Accessed: 10th April 2024).
 - Welsh Government. (2018), *Digital Competence Framework*. Available at: <https://hwb.gov.wales/curriculum-for-wales/cross-curricular-skills-frameworks/digital-competence-framework/>. (Accessed: 13th April 2022).
 - Welsh Government. (2018), *Digital Competence Framework – Your Questions Answered*. Available at: <https://hwb.gov.wales/storage/85f69bca-0134-426d-bff1-c46b4c1d067b/digital-competence-framework-your#:~:text=gov.,wales.,feel%20they%20need%20further%20development>. (Accessed: 12th April 2022).
 - Welsh Government. (2022), *Literacy and Numeracy Framework*. Available at: <https://hwb.gov.wales/curriculum-for-wales/cross-curricular-skills-frameworks/literacy-and-numeracy-framework/>. (Accessed: 13th April 2022).
 - Welsh Government. (Unknown), *Literacy and Numeracy: Your Questions Answered*. Available at: <https://hwb.gov.wales/api/storage/a625428e-9359-4981-a5a0-5accbc506b9d/literacy-and-numeracy-your-questions-answered.pdf>. (Accessed: 13th April 2022).
 - Welsh Government. (Unknown), *Professional Standards for Teaching and Leadership*. Available at: <https://hwb.gov.wales/api/storage/19bc948b-8a3f-41e0-944a-7bf2cadf7d18/professional-standards-for-teaching-and-leadership-interactive-pdf-for-pc.pdf>. (Accessed: 13th April 2024).
 - UNICEF. (2022), *The 12 Transferable Skills*. Available at: <https://www.unicef.org/lac/media/32441/file/The%2012%20Transferable%20Skills.pdf>. (Accessed: 13th April 2022).
 - University of Cambridge. (Unknown), *nrich: Key Obstacles Hindering Cross-Curricular Teaching*. Available at: <https://nrich.maths.org/8453>. (Accessed: 12th April 2022).

Appendix



Name _____

Sycamore Class -

Nature Hunt Activity

In **groups of three**, can you **find** each of these **plant types** around our **school field**?
 Make sure to **fill in the blanks** below each plant type and **tick the box** when you have found each plant. **Scan each QR code** to find out more about the plants growing around our school.



Daisy

The Daisy's stalk is _____ cm long.
 The daisy has _____ petals.

☐




Oak Tree

The leaf of an oak tree is _____ cm long.
 The Oak tree's trunk feels _____.

☐




Dandelion

The Dandelion's stalk is _____ cm long.
 The Dandelion petals feel _____.

☐




Daffodil

The Daffodil's petal is _____ cm wide.
 The Daffodil has _____ petals.

☐




Clover

The clover has _____ leaves.
 Each clover leaf is _____ cm long.

☐


Student-teacher:	Phoebe Swales - 2314717	Class / Group:	Sycamore Class – Year 1&2
AoLE or Subject:	Science & Technology	Date (please note that this may be a continuous session):	Week Beginning – 15/04/24
Meaningful links to Curriculum (What Matters Statements, Descriptions of learning, 'previous' curriculum...)	What Matters Statement 3 - The world around us is full of living things that depend on each other for survival. Progression Step 2 - I can explore relationships between living things, their habitats and their life cycles.		
Meaningful links across the curriculum <i>Links to other AoLEs or the Cross-curricular skills frameworks</i>	Maths and Numeracy – Pupils will be able to use measuring tools such as rulers and metre sticks to assess the different sizes of plants and leaves around the school grounds. Digital Competency – Pupils will be able to use QR codes to access information about the different plants they have discovered around the school grounds. Languages, Literacy and Communication – Pupils will be able to read, understand and follow instructions. Pupils will be able to read and understand information about the plants within the nature hunt. Pupils will be able to use literacy skills to “fill in the blanks” within the nature hunt activity.		
Personal Targets (targets and consequent impact on learning - refer to any targets that have been identified in learning journal or weekly reflection meeting and describe the desired impact on learning)			
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)			
Pupils will be able to recognise several different types of plants around the school grounds, acknowledging their characteristics, differences and similarities.			

Success Criteria

What the pupils need to demonstrate to successfully meet the Learning Intention.

1. Pupils will read and understand the instructions to complete the “Nature Hunt Activity”.
2. Pupils will work in groups of three to find each plant on the “Nature Hunt Activity” template, ticking each box when completed.
3. Pupils will use measuring tools such as rulers and metre sticks to complete the measuring activities listed on the “Nature Hunt Activity” template.
4. Pupils will complete the “fill in the blank” activities listed on the “Nature Hunt Activity” template.
5. Pupils will use iPads to access the QR codes displayed on the “Nature Hunt Activity” template.
6. Pupils will read and understand information and key facts about the plants found within the “Nature Hunt Activity”.

Planning for misconceptions:

Use this section to anticipate pupil errors and misunderstandings and your planned responses to them.

1. **Pupils may not be able to find each of the plants.** - To overcome this, I will complete the “Nature Hunt Activity” myself prior to the allocated lesson time, to ensure that an example of each of the plant types is accessible to the pupils.
2. **Pupils may struggle to measure the plants accurately.** - To overcome this, I will ensure that staff are available to assist the pupils when completing the measuring tasks, including myself and LSA's.
3. **Pupils may struggle to understand the instructions to complete the “Nature Hunt Activity”.** - To overcome this, I will ensure that the task is explained to pupils thoroughly prior to the activity. I will ask pupils to repeat the instructions back to me, to ensure understanding. I will also continuously check pupils are on-task whilst completing the activity.

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 understanding, 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>
10-15 minutes	INTRODUCTION During this time, the class teacher will introduce the "Nature Hunt Activity" and will briefly outline information regarding each plant in the activity.	To ensure the pupils' understanding of the task, the class teacher will ask questions that prompt pupils to repeat the activity instructions. Pupils will be given the "Nature Hunt Activity" template.	Pupils that may struggle to comprehend the instructions to complete the task will have the opportunity to receive additional explanations. As well as this, pupils will be able to work in groups with the aid of an LSA, to ensure confidence and capability when completing the activity.	Pounce questioning method – can be used to ensure understanding of the task and can also be used to determine any previous existing knowledge pupils have regarding plants.
30 minutes	MAIN ACTIVITY During this time, the class teacher and LSA's will be supporting pupils whilst they are completing the "Nature Hunt Activity". They will be ensuring that pupils are on-task and understanding the activity. They will be able to help pupils if they are struggling with the measuring activities. They will also be able to help pupils access the QR codes. An allocated LSA will be working closely with ALN students who may struggle with this task.	Pupils will be on the school field, looking for examples of each of the allocated plant types displayed on the "Nature Hunt Activity" template. They will also be completing the questions and activities outlined within the template. Pupils will be developing their knowledge and understanding of plants, including similarities and differences between them. Pupils will require a "Nature Hunt Activity" template, a ruler, a metre stick, an iPad, and a pencil.	Pupils will be working in groups of three. This grouping is small enough to ensure that each pupil can take part, but large enough so that pupils can help each other where needed. More able pupils will work more independently, with less support from teaching staff, whereas lower ability pupils will receive close support from LSA's.	Teaching staff will ask additional questions to pupils as they complete the "Nature Hunt Activity" in order to encourage wider thinking. These may include; - Where else have you seen this plant? - What do you think helps this plant to grow? - What do you like about this plant?
15 minutes	CONSOLIDATION The class teacher will use this time to consolidate the learning achieved during the main activity. The teacher will re-deliver the information that can be accessed via the QR codes seen on the template. The teacher will ask the class questions based on the information. The teacher will also create a table on the whiteboard listing similarities and differences between the plant types. The pupils will be asked to suggest these similarities and differences.	Pupils will be able to consolidate their learning here by answering questions based on the information they have received during the main activity. This use of repetition will mean it is more likely for the pupil to retain this learning.	Here, the class teacher will alter the difficulty of the questions they are asking each pupil, depending on ability level.	The pounce questioning method can be used here when asking pupils questions, to distinguish the level of learning that has taken place.