

Model 1- Thematic: Minibeasts (Reception)	
"Theme based approaches use a theme to generate exploration through the eyes of several different subjects" (Barnes, 2015a, p.69).	
Art (Ladybug)	Create a clay ladybug, consider shapes and count its features. SKILLS: L- develop new words, phrases and sentences. N- use checking strategies, count up to 10 reliably.
Drama (Role Play)	Act as explorers who need to return minibeasts to their right habitat. SKILLS: L- talk from experience, share info, contribute to role play using relevant language. DC- classify objects. N- Transfer maths skills (sort & classify) to classroom activities.
Science (Hunt & Pictogram)	Hunt for minibeasts and create pictogram of what ones are found. SKILLS: DC- classify objects, create a pictogram, add their names to it and work in pairs on digital work as well as saving a file. N- present work and represent collected data, sort and classify, record collections.
Geography (Compare)	As a class compare minibeasts found in Wales to a country of pupils choice. SKILLS: L- Ask questions. DC- Explore image based websites. Interpret data and make comparisons.
Music (Imagine)	Imagine what noise each minibeast make/ remind you of. Use instruments. SKILLS: L- exchange ideas. DC- record work.

This is an example of the thematic model in use. The theme used in this scenario is minibeasts which can be linked to outdoor and forest school activities.

The thematic model should begin with a relevant theme in order to base numerous subjects around; this model, unlike many others, allows room to incorporate numerous subjects rather than two or three (Barnes, 2015a).

(Skills discussed link to Welsh Government 2015; Welsh Government, 2019a; Welsh Government 2019b)

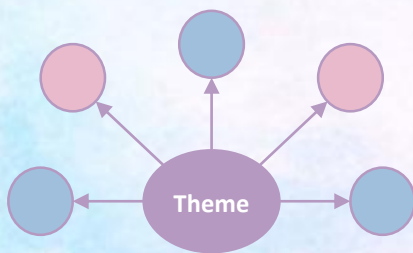


Diagram adapted from Barnes (2015a, p. 70)



Digital competence is becoming increasingly significant within our day to day lives as well as the lives of children; It is becoming an essential requirement within education and the workplace (Donaldson, 2015). As a result of this, digital competence has been allocated as a cross-curricular responsibility aimed at ensuring pupils are taught in a complete and connected way rather than tokenistic teaching due to lack of teacher confidence or knowledge (Welsh Government, 2019c; Barnes, 2015a). Digital competence, collaboration, critical thinking and communication are critical 21st century skills which are growing in demand (World Economic Forum, 2015; World Economic Forum, 2018).



Numeracy is a fundamental part of modern life, ranging from the use of simple arithmetic to more advanced data-handling (Donaldson, 2015). One main intention of the cross-curricular responsibility is to consolidate each child's understanding of numbers and reinforce their use in differing situations, which is exemplified by linking numeracy with as many topics across the curriculum as possible (Welsh Government, 2019c). Real-life context could also be applied to help investigate different mathematical concepts. Additionally, numeracy help give learners opportunities to develop wider skills, such as critical thinking, problem solving, creativity, innovation as well as planning and organisation which are essential 21st century skills (Welsh Government, 2019d; World Economic Forum, 2015).



L- Literacy N- Numeracy DC- Digital Competence

Incorporating Cross-curricular Responsibilities in the Foundation Phase

L- Literacy N- Numeracy DC- Digital Competence

Benefits of Thematic Model

- Making creative connections throughout the curriculum can lead to heightened concentration, self-esteem, school attendance and even improve pupils social interaction abilities (Barnes, 2018).
- Unifies teaching and learning across the curriculum and naturally enables pupils to notice relationships between subjects and builds their interest (Nurlaela et al. 2018).

Limitations of Thematic Model

- Subjects may begin to lose their identity and certain aspects may be overlooked (Roth, 2000).
- Pupils could lack motivation as the theme continues due to a loss of interest on the topic that is connected to everything they do (Wood, 2011).
- If a learner misses school it is likely they would miss an integral aspect of the topic and major connections (Barnes, 2018).
- Danger of poorly planned themes resulting in weak and vague learning (Roth, 2000).

Limitations of Multi-disciplinary Model

- Without high quality planning and teacher subject knowledge the model is unlikely to be effective (Barnes, 2015a).
- No strong links between the subjects involved in this cross-curricular approach; they are developed separately and don't intertwine (Barnes, 2018).
- It is unlikely that every learner will find each powerful experience engaging (Wood, 2011).

Benefits of Multi-disciplinary Model

- Straightforward model which uses one experience to draw on two or more subjects separately; less planning for teachers as they don't have to find specific connections between the subjects (Barnes, 2015a).
- Progression and tracking within this model remains fairly simple (Barnes, 2018).
- Incorporation of powerful experience is likely to motivate learners and engage them in the subjects it connects to (Barnes and Shirley, 2007).

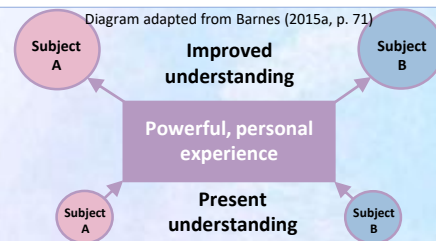
Benefits of cross-curricular teaching and learning

- Effective way to encourage creative thinking (Barnes, 2015a).
- Can improve the reputation of more 'minor' subjects by linking them with more 'prominent' subjects in the curriculum (Hayes, 2010).
- Aids pupil development and prepares them for real life problems as they gain experience of combining skills and intertwining subjects to draw conclusions (Barnes, 2015b).
- Motivates teachers to develop their knowledge in topics they are less familiar with (Hayes, 2010).

Limitations of cross-curricular teaching and learning

- Subject progression is difficult to assess and becomes increasingly difficult alongside the number of subjects involved due to lack of continuity (Barnes, 2015a).
- Although certain subjects link together naturally, e.g. Science and DT, tenuous links are often made; when this happens learning is more likely to falter rather than develop (Hayes, 2010).
- Teachers who lack confidence in certain subjects may use a tokenistic approach to cross-curricular teaching, hiding behind more familiar topics which, in effect, can negatively impact pupils development and progression within the area of learning (Laurie, 2011).
- There is a danger of teaching and learning becoming superficial, resulting in a lack of in depth exploration of subjects (Laurie, 2011).

Diagram adapted from Barnes (2015a, p. 71)



This is an example of the multi-disciplinary model in use. The powerful, personal experience within this scenario relates to a class visit to a local castle. During this trip, pupils will have had the opportunity to explore the grounds, make enquiries, dress in old clothing and role play as characters such as knights or royalty as well as participating in a guided tour filled with interesting information regarding the castle and its previous occupants.

Multi-disciplinary model is a useful tool to use when looking for engaging starting points to your subjects; it allows learners to engage with topics related to something they have taken part in and feel connected to, as a result, increasing their interest (Barnes, 2018).

(Skills discussed link to Welsh Government 2015; Welsh Government, 2019a; Welsh Government 2019b)

Model 2- Multi-disciplinary: Castles (Year 2)

"Multi-disciplinary cross-curricular approaches aim at using a single experience or theme to develop higher levels of understanding and performance in two or more disciplines" (Barnes, 2015a, p.72).

History (Timeline)	Create a timeline of certain events/ occupants of the local castle. SKILLS: N- select appropriate equipment and resources. L- provide appropriate answers to questions, ask appropriate questions, follow and build upon a form modelled. DC- use keywords to search for information, record data collected suitably.
Geography (Map Making)	As a class create a map of areas within Wales identifying where certain castles are located. SKILLS: L- Use subject-related words. N- identify steps to complete the task or reach a solution, gather and record data from lists and tables. DC- add name and date to work and explain why this is important, use collaborative platform, use keywords to search for information.
Drama (Role Play)	Act out the different roles of people they may have come across in different periods of the local castle. SKILLS: L- Use appropriate language, contribute to discussion.

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