



CROSS-CURRICULAR LEARNING CASTLES, KNIGHTS AND DRAGONS IN THE NURSERY CLASS Claire Lewis 1700465 ECAD6012



Barnes Models

Barnes (2015) lays out eight cross-curricular models: tokenistic; hierarchical; single transferable subject; thematic; opportunistic; double-focus; inter-disciplinary; multi-disciplinary in his theory of cross-curricular learning and most incorporate two to three subjects within each model. The use of cross-curricular teaching and learning is supported by constructivists like Dewey and Vygotsky who suggest that children gain knowledge from their experiences which allows them to make links to prior knowledge and it is best undertaken through social experiences and interactions (Brand and Triplett, 2011). Additionally, it has been suggested that teaching in subjects marginalises cross-curricular learning, therefore it is important to use a broad, holistic curriculum (Donaldson, 2015; Curriculum Division, 2016). To explore these models further, a topic will be explored through two of the models: thematic and inter-disciplinary. The thematic model has been chosen as it is well suited to the Foundation Phase, with the children's interests placed above the subject which makes the learning more relevant (Ashbridge and Josephidou, 2009). Within the thematic model, teacher confidence and planning is key (Barnes, 2015), especially as if children are given too much choice as they will avoid areas they dislike and not engage, therefore limiting their learning (Hayes, 2010). However, using the thematic model allows activities to be planned that reflect real life experiences and introduce 21st century skills that are relevant to future life (Alexander, 2010). The inter-disciplinary model has been chosen as it provides opportunity for children to develop their creativity and promotes autonomous learning while engaging the children's interests which leads to greater success in their learning (MacLarty, 2007; The Leonardo Effect, 2016; Bradley et al, 2011; Greenwood, 2013). Within the inter-disciplinary model, it is important the intention for each subject is clear and the teacher is confident, otherwise misconceptions may occur in the learning (Hayes, 2010; Heimer and Winokur, 2015). Furthermore, while the children are actively engaged, they need to be supported to explore the learning across subjects to allow them to develop their problem-solving skills and deepen their thinking skills by making meaningful connections through the projects being undertaken (Heimer and Winokur, 2015; Brand and Triplett, 2011). The inter-disciplinary model also contains elements of the opportunistic model as the children lead the learning, promoting pupil voice, construction of their learning and input into decisions on their learning (Welsh Government, 2016; Estyn, 2016b; Children's Commissioner for Wales, 2019) and this cross curricular approach allows knowledge from specific subjects to be applied in different contexts, reflecting real-world experiences (Rose, 2009; Greenwood, 2013).

Overview of Topic

The topic for the term is Castles, Knights and Dragons and we will begin with a visit to Cardiff Castle where the children will explore the original Norman castle, looking at the different features and subject specific vocabulary will be introduced. They will be encouraged to look at the different shapes that can still be seen photographs will be taken to be referenced to back in school. They will then participate in a session with a knight who will show them his armour and weapons, share a typical day and tell them the story of the Red Dragon of Wales. The importance of beginning the topic with a real-life experience of the topic will provide the children with an engaging, physical and personal experience that will provide a base to launch their learning from (Barnes, 2015) and to give them information from which to develop their ideas of what they want to know more about (MacLarty, 2007). On returning to the classroom, the children will complete a mind map in small groups, sharing their knowledge about the topic to demonstrate the children's knowledge and give a base for planning. Another mind map will be completed at the end of the topic to allow for assessment of the knowledge developed. For the thematic model, activities will be planned for the continuous and enhanced areas to develop the children's knowledge and skills which will also occur through focus tasks. For the inter-disciplinary model, we will start the project by asking the children to draw what they would like to learn about and explain to an adult who will scribe for them. Their ideas will then be used to provide a range of activities in the continuous and enhanced provision to enable the children to explore their interests through a rich environment which will allow for both child and adult-led activities, encouraging their curiosity and exploration to develop their learning (Wood, 2015). Although the learning will be child-led, it would be assumed that they would like to learn more about castles and activities would be provided to enable development of the children's knowledge in this area.

Evidence and Assessment

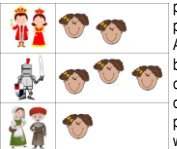
Questioning will occur through the different activities for both models as this is a key feature of AIL and within this age group, the most effective method of checking the children's understanding (DCELLS, 2010).

Key References

Barnes, J. (2015) *Cross-Curricular Learning* 3-14. 3rd edn. London: SAGE Publications Ltd.
Hayes, D. (2010) The seductive charms of a cross-curricular approach', *Education* 3-13, 38(4), pp. 381-387. DOI: 10.1080/03004270903519238. [Accessed: 16th December 2019].
Rose, J. (2009) *Independent Review of the Primary Curriculum: Final Report*. Nottingham: DCSF Publications.

Thematic Activities

To develop the children's oracy skills, we will discuss the different people who lived in a castle, looking at their clothing, food and daily life in comparison to each other and the children's lives today. This will allow the children to explore the concept of fair and not fair in relation to their own lives and the rights that they have compared to those in the past (Department for Education and Skills, 2015). The language associated with each role will be modelled throughout the activities and the children will be encouraged to act out the different roles in the castle role play area during continuous provision. From a constructivist viewpoint, it is important for the children to develop their oral skills through role play as it is child led and allows for meaningful interpretation of language in an imaginative context through metacommunication (Andreson, 2005). We will develop this area in another session by asking the children which role they would have preferred if living at the time, and asking them to explain their choice in simple terms. Pictures will be provided to help the children remember the different roles and they will place a picture of themselves in a simple pictogram template on the floor, allowing them to simply analyse the results. The use of concrete materials will aid the children in making connections between language, symbols and concrete experiences (Haylock and Cockburn, 2014) and this form of data handling is meaningful to the children's learning as it allows them direct experience in the activity (Haylock and Cockburn, 2014) and introduces statistics in a simple way (Haylock, 2010). As they progress, they will move onto placing objects into the pictogram and understanding the representation is still the same as the picture but in a more abstract way (Pound and Lee, 2015). Additionally, by introducing the children to pictograms in the real world and building the pictogram with the children, it will allow them to make the connection between the data collected and the physical representation of the data (Turvey et al, 2016). They will then have a basic understanding of pictograms which can be built on through further activities to support them when they are introduced to ICT programmes such as j2e.

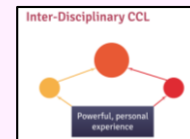


THEMATIC CURRICULUM COVERAGE	
PSD	• Moral and spiritual development
LLC – Oracy	• Developing and presenting information and ideas - o Share - o Interpretation and discussion
MD	• Using data skills - o Collect and record data - o Present and analyse data - o Pattern
	• Developing numerical reasoning o Represent and communicate
	• Using geometry skills o Movement
K&U	• Time and people
DCF	• Data and computational thinking o Data and information literacy

4 Purposes

Ambitious, capable learners	- Are questioning and enjoy solving problems - Use digital technologies creatively - Understand how to interpret data
Enterprising, creative contributors	- Connect and apply their knowledge and skills to create ideas and products - Think creatively and reframe and solve problems
Ethical, informed citizens	- Understand and consider the impact of their actions when making choices
Healthy, confident individuals	- Have the confidence to participate in performance

INTER-DISCIPLINARY CURRICULUM COVERAGE	
PSD	• Social development
LLC – Oracy	• Developing and presenting information and ideas o Collaboration and discussion
MD	• Using measuring skills o Angle and position
	• Developing numerical reasoning o Represent and communicate
	• Using geometry skills o Shape
Creative	• Art, craft and design
DCF	• Interacting and collaborating o Collaboration

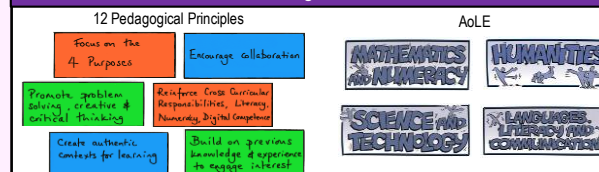


Inter-Disciplinary Activities

To allow the children to explore the shapes visible in different castles, 2D shapes of squares, triangles, rectangles and circles will be provided for the children to experiment with in the continuous provision. Photographs will also be provided to allow them to identify the shapes they can see using simple terms. They may then choose to represent their own shape castles artistically in the writing or creative areas. In the continuous construction area, cardboard boxes will be provided for the children to build their own castle, again using shapes but this time in 3D form. These activities will encourage connections to be made between 2D and 3D shapes and both shapes names will be modelled at varying times for the children to enable the links between language and concrete experiences (Haylock and Cockburn, 2014; Rowland, Turner, Thwaites and Huckstep, 2009). Alongside the mathematical learning, during the construction of their castle, the children will be developing their oracy skills through the sharing of ideas and collaborative nature of the activity (Department for Education and Skills, 2015). As Vygotsky suggested, the children will move from monologuing their problem-solving to internalising it through their experiences (Smidt, 2009) as they move through the construction phase. An adult-led activity will enhance the children's real-world castle building as they use Minecraft Education to build a castle in the virtual world. iPads will be used for this activity as the children have experience of touch screen technology through previous use of the iPads and they allow for immediate engagement (Caldwell and Bird, 2015). Prior to creating their castles, several sessions will be spent exploring the programme and learning how to use the build tools through this format to ensure the children have the skills and understanding of how to use the programme. Additionally, the children will create their castle in pairs to allow for collaboration and development of problem-solving through their talk (Lawrence, 2018) and small groups of six will access the activity with an adult to ensure they are able to receive support where appropriate. The castles will all be built in the same Minecraft world and at the end of the topic, the children will be able to virtually travel through the world to visit the different castles they have created and they will be assessed on their collaboration, discussion, final creation and the detail of their castle considering the element of exploration that will have been provided through continuous, enhanced and focus activities. Building castles in both the real and virtual world supports the children's creativity which has been shown to impact on standards (Curriculum Division, 2015).



Looking Forward



Overview

The LNF was introduced in 2013 and is intended to support teachers in making links across subjects by making the LNF and integral part of their planning (Curriculum Division, 2016; Estyn, 2017). With the introduction of the DCF in 2016 as the first element of the new curriculum, the importance of transferable skills was emphasised (Curriculum Reform Division, 2016) which is a key feature of cross-curricular learning (Hansen and Vaukins, 2012). Rose (2009) recommends embedding a secure base for literacy and numeracy by the end of the Foundation Phase and Wales has recognised this by placing the LNF as an important feature of the new curriculum, with DCF being raised to the same level of importance (Education and Public Services Group, 2015; Donaldson, 2015).

Literacy

Due to the young age of the children in the nursery class and many children starting school with poor language skills today (Gross, 2013), oracy has become an important aspect of teaching and learning in the early years. It forms the foundation of future learning (Alexander, 2008) because 'reading and writing float on a sea of talk' (Britton, 1983, p.11) and Hirsch (2007) suggests that good speech development in the early years will promote strong reading skills in the future. Didau (2014) agrees that to write, children need to be able to verbalise their thoughts, as if they cannot say them, they cannot write them. It is clear that talk is essential and it has been shown that good quality talk will raise standards in the classroom as children learn how to use language to convey meaning verbally in order to impact on their writing (Alexander, 2012; Estyn, 2018a). Therefore, the primary focus of all activities through the two models will be to promote the children's oracy skills in order to give them a sound underpinning that can be used to develop their reading and writing skills as they move through their time in school.

Numeracy

Within the nursery class, the initial numeracy focus is on practical activities that has teacher modelling initially then the children handling resources and building their own concepts (Taylor, 2014). This allows the development of connections between language, symbols, pictures and concrete experiences and the stronger the connection, the more secure the understanding (Haylock and Cockburn, 2014). Using this understanding of the use of practical and concrete resources, the introduction of shapes and mathematical language such as prepositions through construction of a castle supports this development and offers opportunities for problem solving as the children draw on their experiences in different areas of the continuous and enhanced provision to complete tasks (Taylor, 2014). Furthermore, the nature of the activities provided through continuous and enhanced provision offer opportunities for numeracy to arise naturally and this allows teachers to reinforce skills across the curriculum (Estyn, 2016a; Hansen and Vaukins, 2012). The use of data handling introduces further mathematical language in a simple way which can then be developed into more abstract terms as the children progress (Pound and Lee, 2015).

Digital Competency

Although children today are seen as confident users of technology from a young age, this is only in specific areas and digital competency in schools aims to ensure they are confident in all areas (Payton and Hague, 2010; Curriculum Reform Division, 2016). While many children will be familiar with Minecraft as a game, considering the practicality of building a simple castle is challenging in real life, let alone in a virtual world and this offers opportunities to develop skills such as creativity and collaboration (Payton and Hague, 2010). Children need to develop high levels of digital competence to be able to participate in the world today and embedding these skills in school is a key component for this (Donaldson, 2015; Estyn, 2018b). Despite this need though, the basics need to be explored and this will not always occur through technology. For data handling, the use of computational thinking is introduced through physical resources and logic is encouraged as the children look for patterns in the pictogram to develop understanding of the skill as a precursor to future technology use (Fastigi, 2014; Donaldson, 2015).