

Using a theme or traditional tale as a stimulus, consider how you might embed the six areas of learning and experience and the four purposes (Donaldson) in an integrated, cross-curricular approach.

In recent years, the benefits of cross-curricular teaching have become more apparent. Savage (2010) states “it is characterised by sensitivity towards, and a synthesis of, knowledge, skills and understandings from various subject areas”. In addition, his work shows the importance of a cross-curricular teaching approach: “It promotes an approach to learning which embraces and explores this wider sensitivity through various methods” (Savage, 2010). In addition, Barnes (2012) defines as cross-curricular as “when the skills, knowledge and attitudes of a number of different disciplines are applied to a single experience theme or idea.” The topic for this assignment will look to ensure that the cross-curricular approach is followed. The chosen theme for the assignment is ‘The Rainforest’. The theme was selected due to the fact that it is an interesting and engaging topic for young people. In addition, the information is relevant in the world today. The children will learn how their decisions are affecting the world around them especially in the rainforests. In addition, the theme will be able to link to all of the areas of learning and the four purposes. Also, the topic will be able to include the YCC, DCF and LNF.

The concept of cross-curricular was introduced by John Dewey (1902). He believed that “there is no benefit in creating a false opposition between subjects and the child as a focus for the curriculum”. There are arguments for and against the cross curricular approach. Barnes (2012) believes that “cross-curricular learning is a powerful way to generate creative thinking”. In addition, the importance of cross curricular is emphasised in an Ofsted report (2002). They found that “successful primary schools made clear links between subjects” and as a result found that it “ensured that pupils applied the knowledge and skills learned in one subject to others - reinforcing learning and increasing understanding confidence”. Furthermore, “it aims to assess attitudes towards and progress in understanding one’s self, understanding others, understanding essential local issues to the community, collaboration and understanding global issues” (Rowley and Cooper, 2009). With the contemporary state of education in Wales where there will be the introduction of the new curriculum relating to Donaldson’s ‘Successful futures’, a cross curricular approach will be crucial in the success of meeting the demands of the new curriculum. Barnes (2015) states that cross curricular teaching “seeks to build more knowledgeable, lasting and transferable understanding of the world around us”. The statement links to Donaldson’s four purposes. Donaldson seeks to ensure that young people are “ambitious, capable learners”. Also, “enterprising, creative contributors”,

“ethical, informed citizens” and “healthy, confident individuals”. Thus, cross-curricular teaching is essential to achieve the four purposes. However, the Department for Education (DFE, 2009) believed that “there is too much prescribed content in the current curriculum, more and more content is added with too little regard for the practicalities and expertise needed to teach it effectively”. This reinforces Barnes’ (2012) point that cross-curricular teaching helps children think more creatively. In addition, it is believed that “many teachers have not had the efficient amount of cross-curricular work during their school based training” (Barnes and Shirley, 2007). Therefore, there is an argument that many teachers are not efficient enough teaching in a cross-curricular way and may require further training which would cause economic difficulties as school budgets are already being cut. In addition, it can be difficult to go into depth during a topic when using the cross-curricular approach. Barnes (2012) believes that “subject progression is difficult to achieve, even when only two subjects are involved, it is almost impossible with three or more”.

Using the theme ‘The Rainforest’, the six areas of learning and experience and the four purposes will be targeted. The activities chosen for the topic will be conducted in a cross-curricular manner. The six areas of learning and experience are as followed: Expressive arts, humanities, health and well-being, language, literacy and communication, mathematics and numeracy and science and technology. To embed the Science and Technology area of learning I will "capitalise on children and young people’s curiosity about our natural, physical world and universe through investigating, understanding, and explaining” (Donaldson, 2015). One activity that will be undertaken is the sorting and classifying of animals that are found in the rainforest. Furthermore, the different layers of the rainforest will be introduced to show where the various animals live within, for example, many insects live in the Understory layer. The National Curriculum for Science states that “Pupils should be given opportunities to carry out different types of enquiry, e.g. pattern-seeking, exploring, classifying and identifying.” Also, the classifying activity links with the Mathematics and Numeracy area of learning as it develops, sorting skills that can be transferred into mathematical and numerical work. In addition, there are links with humanities and in particular the Geography aspect, due to the fact that the children are learning about the different layers of the rainforest and the different habitats. Another activity that will take place is Humanities based. Firstly, I will compare a chosen rainforest e.g. The Amazon with Wales, to provide the children with a comparison that they can relate to. They will be given both sets of data for each area and draw a climate graph, then draw conclusions from the graphs, for example, which has more rainfall. They will be given the opportunity to identify and describe natural features and they will also identify and locate places and environments using globes, atlases, and maps. Furthermore, mathematics and numeracy will be incorporated through the use of graph work. Also, the use of Wales as a

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comparison will make use of YCC. The next activity will have aspects of Geography and Language, literacy and communication. I will introduce the concept of deforestation and other human factors that are having a negative affect on the rainforest. There will then be a class discussion/debate, allowing all the class to express their opinions and views on deforestation and other factors. This activity allows the pupils “to adapt talk, showing understanding of the differences between informal talk with friends and more extended talk with a wider group”. The final activity will include elements of Design and Technology and Science, making links between the expressive arts and science and technology areas of learning and experience. The children will build on their knowledge on climate and rainfall in the rainforest and will be asked to design a roof that could be used in the rainforest, using different materials which are best suited to the design and to the environment. Pupils will be asked to “demonstrate their creative thinking when considering and recording solutions to problems that arise during their designing and making” also they will “evaluate their design ideas as they develop, considering the needs of the user”. Throughout all of these activities the Cwricwlwm Cymreig will be followed and promoted through linguistic and environmental means. Also, elements of the LNF will be used through using a variety of skills, to ensure that mathematical and language competence is being developed and in a cross-curricular way. In addition, throughout these activities, Donaldson’s four purposes will be targeted to ensure that children get the most out of education. All of the areas of learning are able to target these four purposes. Donaldson (2015) suggests that through promoting the Expressive arts; “children will be encouraged to explore new ideas and strive to improve their performance”, to help the pupils become ‘ambitious and capable learners’. In addition through the use of Humanities in these activities I will use a range of perspectives and address contemporary issues, through the deforestation activity, to help the pupils become “ethical, informed citizens”. Furthermore, through the inclusion of language, literacy and communication in the chosen activities, the pupils are given the opportunity to express their thoughts and feelings and participate in discussions within a safe environment through the deforestation debate. This in turn encourages the pupils to be “healthy confident individuals”. Finally, through the use of Science and Technology, the children are presented with the opportunity to design their own products using different materials and work co-operatively to develop their ideas during the designing of the Monsoon-proof roof. This in turn seeks to work towards one of Donaldson’s purposes: “enterprising, creative contributors”

Barnes (2015) identifies eight types of cross-curricular: “tokenistic, hierarchical, single transferable subject, theme based, multi-disciplinary, inter-disciplinary, opportunistic and double focus” Barnes (2015) states that “each contrasting mode of cross-curricular learning can be applied within thematic, project or topic-based approaches to the curriculum”. Barnes (2015) states that

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"hierarchical cross-curricular methods aim at achieving progress in one discipline by also teaching aspects of another". This is the most common type of cross-curricular teaching. It relates to an activity which incorporates two subjects, for example a Geography lesson that involves map and co-ordinate work, includes aspects of Mathematics and provides an alternative way of teaching co-ordinates. Overall, this method of cross-curricular teaching looks to enhance and support learning in one subject through the use of a secondary subject. This approach is very useful in the fact that if some have difficulties in one subject, for example, mathematics, the teacher can transfer those same skills into a different subject, for example Geography, which provides children with the optimum learning experience. The method of inter-disciplinary cross-curricular "aim at progression in two or more subjects, and the promotion of creative thinking and connection making between the subjects involved". It suggests that two subjects are brought together for a creative outcome. This method is used to "understand or express a particular experience or idea or to solve a problem" (Barnes 2015). The knowledge gained from the two subjects is joined together to create a presentation using these skills. However, this area of cross-curricular teaching can be difficult to competently embed into teaching styles, due to the fact that the teacher needs to be confident with these two disciplines. Throughout the activities associated with the rainforest I will look to incorporate the eight areas of cross-curricular teaching, especially the hierarchical approach. I feel that this is the most effective way of teaching in a cross-curricular way and is the most productive way of including each one of the pupils in successful learning.

Overall, cross-curricular is an important approach in order to ensure that children receive the optimum learning experience. The benefits and limitations of a cross-curricular approach has been underlined and I feel that the benefits outweigh the limitations. A prime example of how a cross-curricular approach can impact on learning can be seen through the 'Cross-Curricular Creative Projects' initiative from Creative Partnerships in 2007. They aimed to "articulate the benefits and challenges of this approach to teaching and learning" (Duncan, 2007). At Islington Green School, London, the school created a version of our solar system which spanned art and design, design and technology, maths and science. The maths objective was to use the formulae for the circumference of a circle in relations to the planets. This was memorable for the students interviewed four months after the project. The Head of Maths, Rachel Anderson, expressed her disbelief in terms of how well the project worked: "Ordinarily we do it on the whiteboard but I think the whole very physical experience was really a fantastic one". Also, the cross-curricular will be influential to the success of the new curriculum in Wales and will help achieve the four purposes outlined in Donaldson's (2015) 'Successful Futures'. Thus, with the compilation of the benefits that a cross-curricular approach can potentially bring and the successes in schools, such as Islington Green School, I feel that a cross-

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curricular teaching approach is not only beneficial but essential to the success of education in Wales.

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