



(Ropeik, 2019)

MODEL ONE THEME-BASED CROSS-CURRICULAR APPROACH CLIMATE CHANGE



CROSS-CURRICULAR TEACHING IN KEY STAGE TWO YEAR 4- GLOBAL CITIZENS- HUMANITIES PROJECT



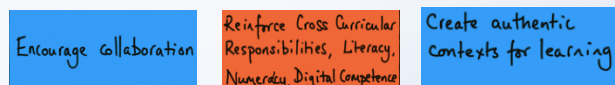
(Wightwick,2017)
‘ *separate subject planning, and a narrow view of how best to develop literacy and numeracy skills, resulting in a repetitive set of experiences.* (Donaldson, 2015, p. 35).

The cross-curricular approaches should make relevant links to the cross-curricular responsibilities and teachers should ensure the learning is formatted in a way that reflects real-life rather than separately teaching the skills (Welsh Government, 2019c)



(Donaldson, 2015)

Donaldson's Pedagogical Principles Linked to the Learning Experiences



(Impact Wales, 2018)

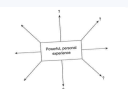
Should we use a cross-curricular approach to teaching?

Although Hansen and Vaukin (2012) argue that children do not learn in compartments, McAteer and Nelson (2012) would argue that children learn through meaningful context and experiences and not by firstly mastering skills. The two learning experiences are more effective by teaching them in a cross-curricular way, where many different skills will be developed.

However, as cross-curricular responsibilities are a key aspect in this assignment, the strong focus could effect the development of humanities subject knowledge. This approach can lead pupils to become disengaged as the activities may be repetitive or are not based in a context to engage the pupil (Estyn, 2017). However, this project is humanities/ geography focused but also has strong links to the cross-curricular responsibilities.

Humanities Project

The humanities play an important role in developing literacy and numeracy skills, but the development of pupils' ICT/DCF skills is more variable. *‘This is because the planning for the development of ICT across the curriculum has generally lagged behind the planning for literacy and numeracy’* (Estyn, 2017, P. 19). The global citizens topic allows the learners to build independence and raise levels of self-confidence and self-esteem (Welsh Government, 2019b). The projects do not provide opportunities for a lot of direct teaching and encourages more of an active learning approach, where learners are able to experience the wonder and mystery of the natural world for themselves.



MODEL TWO OPPORTUNISTIC CROSS- CURRICULAR TEACHING APPROACH PLASTIC POLLUTION

(BBC, 2019)



Donaldson (2015, p. 26) may support opportunistic learning as he believes *‘every child and young person benefits from personalized learning’*. According to Barnes (2015) An opportunistic approach encourages pupil voice and puts learners in control of their learning, which can increase engagement. According to Donaldson (2015, p. 69) to increase the effectiveness in the classroom learners *‘take increasing responsibility for their own learning’*. Learners will be expected to carry out their own research project by researching, creating a poll then presenting what they have found out about on plastic pollution to the class.

This allows children to choose the direction of their learning from a shared theme or experience (Barnes, 2015). The theme arrived following a previous topic on climate change topic. The learners felt they wanted to learn more about plastic pollution. Bruner (1915–, cited in Pound, 2014, p. 63) believes that *‘children are active learners’*. This would support the project as the learners are taking control of their learning and developing their skills through experiences. During the project, the learners voice will be an important planning and learning tool and this would be supported by UNICEF (1989) therefore opportunistic learning is encouraged (Bragg, 2010, cited by Barnes, 2015). Estyn (2017) believes when child-initiated learning takes place it allows pupils to develop their confidence and persistence. The teacher can take the role of the facilitator where the pupils can become active learners. Learners will be organized into groups where collaboration and communication are required to complete the project. Group work encourages the learners to discuss their points where learners are developing their communication and listening skills (DCELLS, 2014). The tasks will require children to ‘think together’ (Mercer, No Date) However, it is not necessary for pupils to work in groups as at Key Stage 2, most pupils are increasing their independence and show resilience when they find tasks difficult (Estyn, 2017) But Mercer (No date) promotes group work to develop oracy skills.

Activity 1

The learners decided they wanted to carry out primary research specifically to plastic pollution and observe the consequences of littering, at the beach which will be used to support their campaign. Educational visits can be enriching experiences for learners (Estyn, 2017). During the visit they are building on their observational skills, data collection and analysis. Also, they can begin to question ‘how humans affect the local environment’ (DCELLS, 2008b, p. 12) (Piaget, 1896–1980, cited by MacBlain, 2014) believed that children learn best when they construct their own understanding, this can be done through first hand experiences such as interacting with the environment. Also ‘learners should be given the opportunity to study caring for places and environments’ (DCELLS (2008, p. 12). A class trip to the beach allows learners to investigate how plastic pollution affects their local area and the world. The environment is an engaging stimulus which provides many opportunities for learning and allows the learners to be inquisitive about the world (Yates and Eames, 2018). The school trip allows learners to experience playing and learning in and exploring rich indoor and outdoor environments, where many skills are developed (Welsh Government, 2019a). Also the beach can act as a stimulus to encourage specific type of talk that would not naturally appear if the learners investigated the beach using pictures and videos only. It also provides an opportunity for learners to engage with their group.

Activity 2

The next activity encourages the learners to carry out research into plastic pollution, to do this they will have to find relevant information using different keywords and search techniques. The teacher will be scaffolding their learning, by supporting the learners to discuss the key words that they may want to investigate. It is important that the teacher scaffolds, but for children to benefit the most they have to choose their own key words to ensure they are choosing what they want to learn and Donaldson (2015) highlights the importance of choice in education. The teacher would use many strategies of formative assessment to assess learners such as thumbs up /down, student feedback and talk partners. During this activity the learners will be required to develop their reading skills where they will information and ideas from web pages, using different search methods, considering which are the most efficient methods and select and use information and ideas from texts. It is important that the teachers have clear understanding of the learners prior knowledge so they can provide and support. The learners will be required to make notes on their secondary resource which will be useful for the rest of the project.

Activity 3

From what they have researched, the learners can use the information to create a poll for all the classes in the school. The teacher will show the learners how to create a poll on Microsoft Forms and show good examples. After carrying out the poll, the learners will be developing their data handling skills where they extract and interpret information from charts, timetables, diagrams and graphs and begin to create data sets and extract information from them with tables, charts, spreadsheets and databases. This activity would involve collaboration where learners will contribute to group discussion and help everyone take part and they will have to work together to help the group decide on their key questions they want to ask. Then the learners will share the poll with their peers to collect primary data on plastic pollution.

Activity 4

For the final part of the plastic pollution project the learners will be required to share what they have learned with the class. They will have the choice on how they want to do this. Learners will have to collaborate to discuss and reach a final agreement on their chosen presentation and they plan together. It could be a presentation or a speech where learners will have to ‘listen carefully to presentations and show understanding of main points’. Or the groups may decide to create a video using Movie Maker which develops their ICT skills.

Barnes (2015, p. 69) states *‘theme-based approaches use a theme to generate exploration through the eyes of several different subjects’*. To create a successful cross-curricular project, Barnes (2015) highlights that themes should be considered carefully and should be:

- Authentic
- Related in some way to the rich resources of the community
- Well-planned and assessed
- Service only by subjects that genuinely add to understanding
- Relevant

A project on climate change is a current issue which will effect their future which should motivate learners

and encourage them to participate fully. The new curriculum aims to inspire children to

be aware and to engage with the challenges and opportunities that face humanity, and take considered, ethical and sustainable action (Welsh Government, 2019a).

Activity 1

To introduce the topic the children will explore ‘What is climate change?’. The children will be carrying out an enquiry to gain an understanding. The theme allows the learners to develop their geographical skills to study their world and to care for places, environments and the importance of being a global citizen. The learners will be using secondary sources to find out more about what climate change is, by using the internet to find relevant information using different keywords and search techniques. They will create a mind map or information sheet to record the information they find.

Activity 2

Once the learners have sufficient knowledge on climate change such as what is climate change, the effects and how to take action. Then they will be creating a campaign to encourage individuals, schools and communities to take action to reduce their own carbon footprints. This activity develops humanities, oracy and numeracy skills such as learning how humans affect the local environment’ (DCELLS, 2008, p. 12), speaking and listening, expressing issues and ideas clearly, using specialist vocabulary and examples, listening to others, asking questions and responding to both the content and the speakers’ viewpoints, using statistics and data to draw conclusions. The teacher will show learners different examples of campaigns to support learners. The learners can choose to work individually, in pairs or in small groups.

Activity 3

The final activity involves learners fundraising money for charities working against climate change such as Oxfam. Learners are physically making a change and developing many skills and are immersed in many different learning experiences. Donaldson (2015,) believes learners want engaging and relevant lessons with more hands-on activities, where they can have fun. The class will create a fundraising activity, where learners will create an idea and decide how they will raise money which will develop many literacy and numeracy skills such as listening, responding, giving views on what the speaker has said and managing money, comparing costs, determine what can be bought within a given budget, and therefore developing their financial skills. They will use their campaigns to encourage the school to donate money as Dewey (1859–1952, cited by Pound, 2014) suggests that children learn by doing, therefore constructing their own learning so they will gain the experience of creating and carrying out their fundraising project.

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