

Why teach using a cross-curricular approach?

- Teaching children using a cross-curricular approach allows for children to have a deeper understanding of concepts taught to them as they can comprehend why what they are learning is important and connect it to the real world. As Barnes (2015b) suggests, the world beyond the classroom is cross-curricular and the events and things we see around us are all understood by combining what is learnt from various parts of the curriculum rather than from the perspective of just one subject.

Multi-disciplinary Cross-Curricular Approach

- This approach arises from a powerful and significant experience that is shared by both the children and the teacher in order to develop higher levels of understanding in two or more disciplines (Barnes, 2011).
- This approach allows for two or three different subjects to be developed using a single shared experience. However, the disciplines are introduced and developed separately to throw light on an event, issue, problem or question (Barnes, 2011).
- Unit of work that could be expected to run over one week.

Powerful Experience:

- School visit from the RNLI or a visit to a local lifeboat station can provide the children with a powerful and meaningful experience whilst providing them with a problem or question.
- E.g. Why do people get cut off by tides? Can we help?
- A motivating factor for the children could involve the local RNLI being involved with judging of posters to help educate the public on local tide movements.
- As part of the powerful and personal experience the children can then visit beaches in their local area to begin to understand how and perhaps why people are cut off by the tides so often. The children can take photos and make notes of what they see at the different beaches.

Geography

- Understanding places, environments and processes:
- Describe the causes and consequences of how places and environments change (Department for Children, Education, Lifelong Learning and Skills, 2008a).
Why does the tide come in and out?
What are the consequences of the tides coming in and out?

Numeracy

- Read and use analogue and digital clocks (Welsh Government, 2013).
Children using tide timetables to understand tidal movements.
Time between low and high tide?
How many times a day does the tide come in and out?

Literacy

- Use images, graphs and illustrations which are clear, relevant and appropriate. (Welsh Government, 2013).
Children will be required to make their posters eye catching with relevant information and pictures for the intended audience.
The children will combine their knowledge and understanding of the geographical concepts and the information interpreted from the tide timetables to create their posters.

The above shows how one powerful experience can provide opportunities to develop and embed skills across numeracy and literacy as cross-curricular responsibilities whilst also developing children's knowledge and understanding in geography.

Digital Competency

- Comment on reasons for layout and invite feedback and responses from others (Education Wales, 2016).
The children can create their posters/signs using different digital formats of their choice and then discuss in groups why they have made displayed them like they have; receiving and giving feedback.

Using Cross-Curricular Models to Incorporate Literacy, Numeracy and Digital Competency as Cross-Curricular Responsibilities

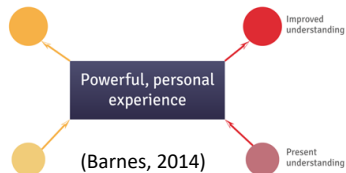
The following cross-curricular models and examples are appropriate for a year 5 class.

Recommendations

(Donaldson, 2015)

6. Children and young people should have their learning developed across the curriculum through three Cross-curriculum Responsibilities that should be the responsibility of all teachers: literacy; numeracy; and digital competence.

Multi Disciplinary CCL



Set themselves high standards and seek and enjoy challenge.

Connect and apply their knowledge and skills to create ideas and products.

Engage with contemporary issues based upon their knowledge.

Know how to find the information and support to keep safe.

Respect the needs and rights of others.

Benefits

- ✓ Provide a meaningful experience for the children (Barnes, 2011).
- ✓ Teachers suggest it is a manageable and enjoyable for the children. (Barnes, 2011).
- ✓ All disciplines treated as equal (Barnes, 2011).
- ✓ Easy to assess and ensure progression (Barnes, 2011).

Limitations

- ✗ High degree of planning (Barnes, 2011).
- ✗ High level of teacher confidence and teacher knowledge. (Barnes, 2011).

Thematic CCL (Barnes, 2014)



Form positive relationships based upon trust and mutual respect.

Understand how to interpret data and apply mathematical concepts.

Connect and apply their knowledge and skills to create ideas and products.

Are knowledgeable about their culture, community, society and the world, now and in the past.

Theme-based Cross-Curricular Approach

- This approach allows teachers to unify teaching and learning across the curriculum through the exploration of a theme (Barnes, 2015).
- This particular example could last around one week. However, with further curriculum links possible, it could last a term.

Theme

- Africa

Digital Competency

- Exchange online communication with other learners, making use of a growing range of available features, e.g. when e-mailing, use search function, manage contacts.
- Children can communicate with children of the same age from schools in Africa and ask questions about life in Africa.

Numeracy

- Represent data using:
– lists, tally charts, tables, diagrams and frequency tables
– bar charts, grouped data charts, line graphs and conversion graphs (Welsh Government, 2013).
- Children can gather and collect data of rainfall and temperatures from Africa and Wales. They can then create appropriate graphs, charts and tables to represent their findings and compare the data.

Literacy

- Explore issues and themes through role play.
Children can imagine and live life as if they were African children. Thinking about how they may feel in different situations. Links to poverty and UNCR. How some people are less fortunate than others.

Benefits

- ✓ Themes can work well to inform and motivate children to learn when they are authentic, relatable, well planned and use subjects that are genuinely able to add to understanding (Barnes, 2015).
- ✓ Themes allow for a wide range of subject disciplines to be involved in the children's' learning (Barnes, 2015).
- ✓ Provides children with memorable, deep, transferable and transformative learning opportunities (Barnes, 2015).

Limitations

- ✗ Children can be unsure what subject they are learning. (Barnes, 2015).
- ✗ Planning and implementation on teachers can be demanding. (Cameron, 2001).
- ✗ Wide repertoire of resources may be needed to plan for children of all abilities to be stretched. (Cameron, 2001).

Further Reading:

- Barnes, J. (2015a) *Cross-Curricular Learning 3-14*. 3rd Ed. London: SAGE.
- Donaldson, G. (2015) *Successful Futures*. Cardiff: Crown.

Reference List

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Estyn (2018a) *The Annual Report of Her Majesty's Chief Inspector of Education and Training in Wales 2016-2017*. Available at: https://www.estyn.gov.wales/sites/www.estyn.gov.wales/files/documents/Estyn_Annual%20Report_2018_English_Accessible.pdf (Accessed 8th December 2019).

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