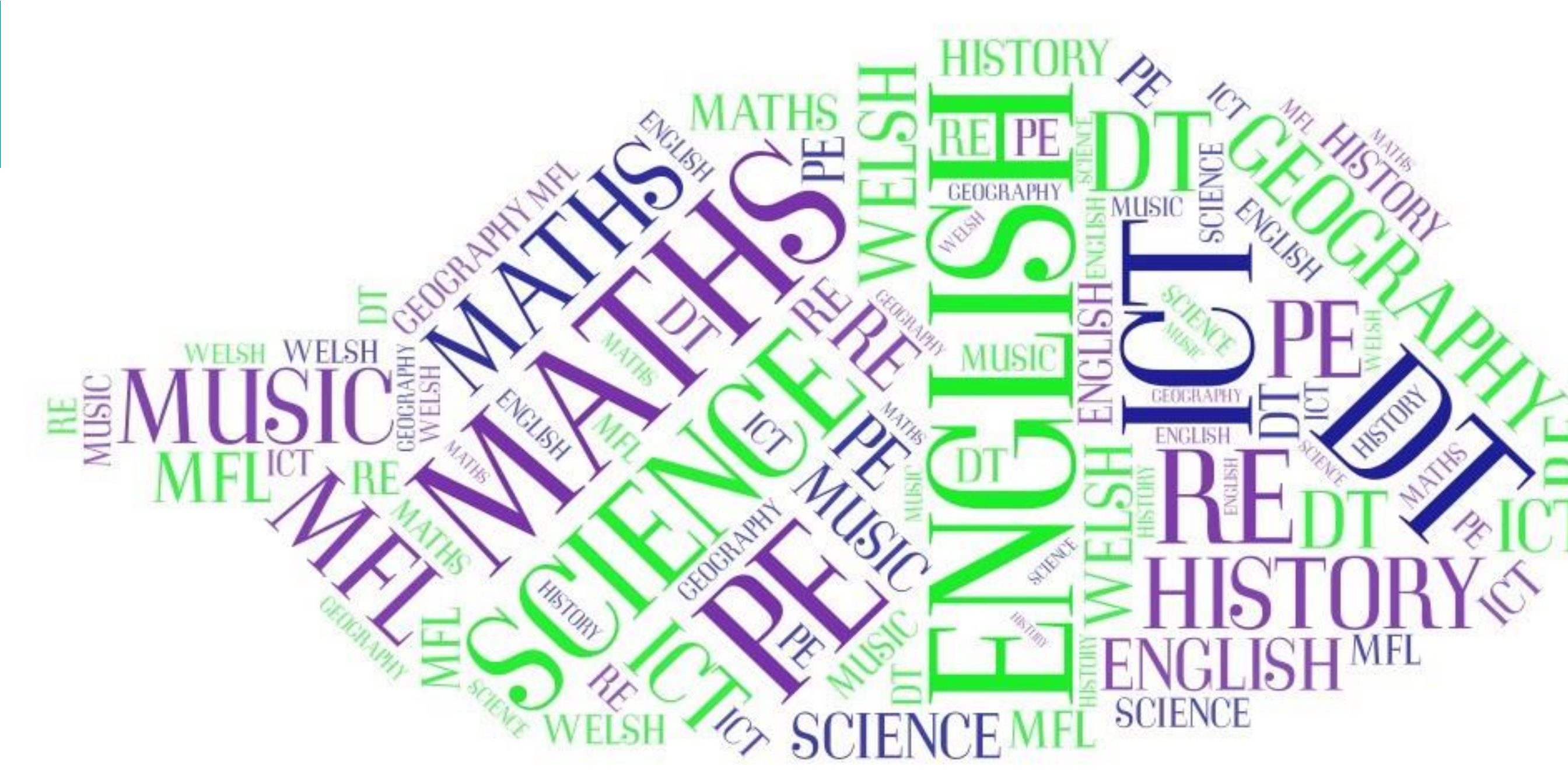
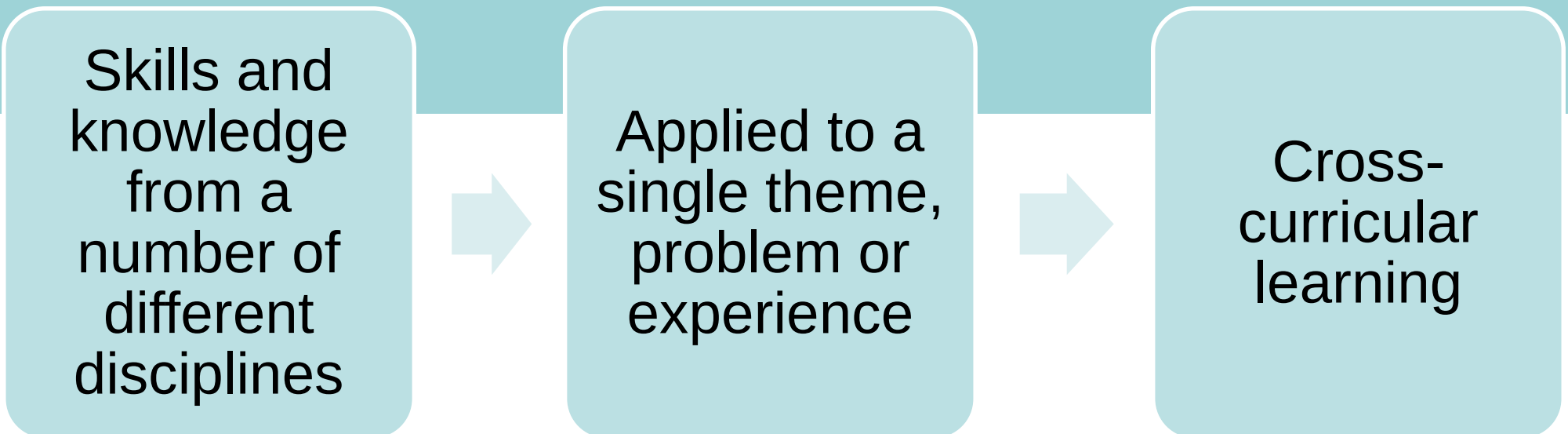




Implementation of cross-curricular teaching within key stage 2

Liam Brooks (1701996)

This poster will be targeting educators and people within the education sector in Wales. The intention of this poster is to give two examples of different types of Barnes’ cross curricular teaching methods and explain how they can be implemented into a key stage two class. According to Webb and Webb (2002) and Greenway (2007) many primary school teachers found cross-curricular practice to be an important and preferred element of practice. It is recommended that schools within Wales should plan topics or themes that can be taught in a cross-curricular fashion so that children can take knowledge they already have and build upon this by applying it in different contexts (Estyn, 2000). According to Estyn (2016) and Ofsted (2010), schools that plan efficiently for cross curricular learning methods with external trips to further the education will have a positive impact on pupils attainment.



A diagram created by the writer to show the process needed for cross curricular learning to occur.

Opinions on cross-curricular teaching and learning



HEA (2019)

Teaching in a cross-curricular learning method differs from the National curriculum because it helps to prepare children for the future rather than helping them to understand the world now. (Grigg, 2015, p268).

“Our experience of the world is cross curricular. Everything that surrounds us in the physical world can be seen and understood from multiple perspectives.” (Barnes, 2015, p1).

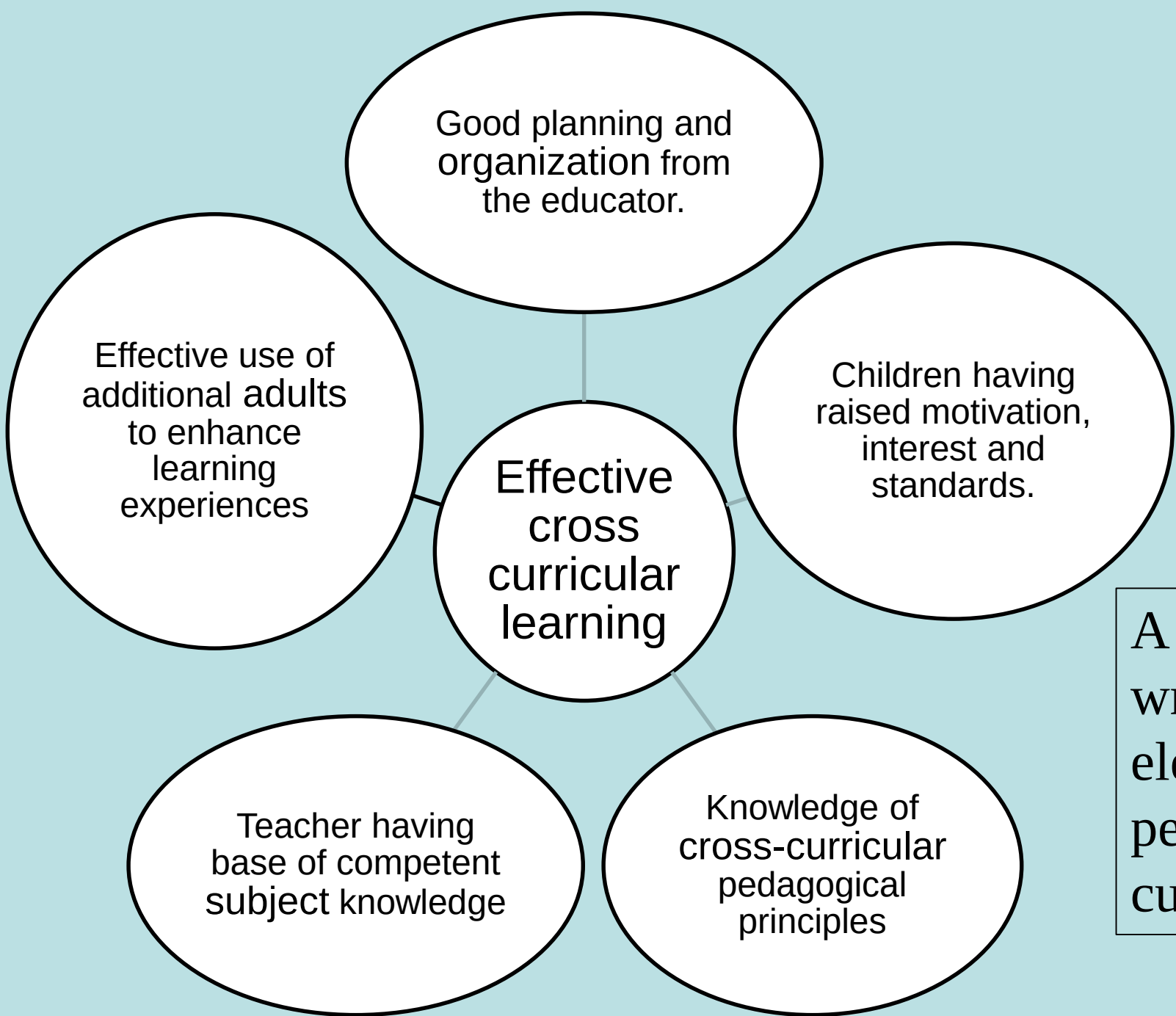


Crown house (2019)

“There is a range of competences and skills which are foundations for almost all learning and are essential to being able to participate successfully and confidently in the modern world.” (Donaldson, 2015, p39).



Wales Online (2017)



A diagram created by the writer to show the elements required to perform effective cross curricular teaching.

References:
Barnes, J. (2015). *Cross-curricular learning 3-14*. 3rd ed. London: Sage.
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Model 1- History/ PSE Lesson

Hierarchical cross-curricular style of learning

This lesson will be a carousel style task where the pupils will be taking part in three 30 minute activities. According to Gray (2016) using carousel tasks is a fantastic way to encourage group discussion and improve problem solving skills. The lesson will be for a year 5 class of pupils. Barnes (2015) considers there to be specific ways to teach a cross curricular lesson. The activity being suggested to implement lends itself to Barnes’ hierarchical model of cross curricular teaching. It is felt by Barnes (2015) that there is eight different types of cross curricular learning and that these types sometimes overlap when teaching of this type takes place. The aim of the hierarchical cross curricular model is to achieve progress in one subject through teaching aspects of another Barnes (2015). During PTE, it was evident that this model is currently used within schools as pupils used the Percy Parker app to help with their learning of the times tables. This model can help teachers to bridge the gap between strict single subject learning and a complete cross curricular approach as you are taking only small aspects of one subject to create an improved learning experience in another.

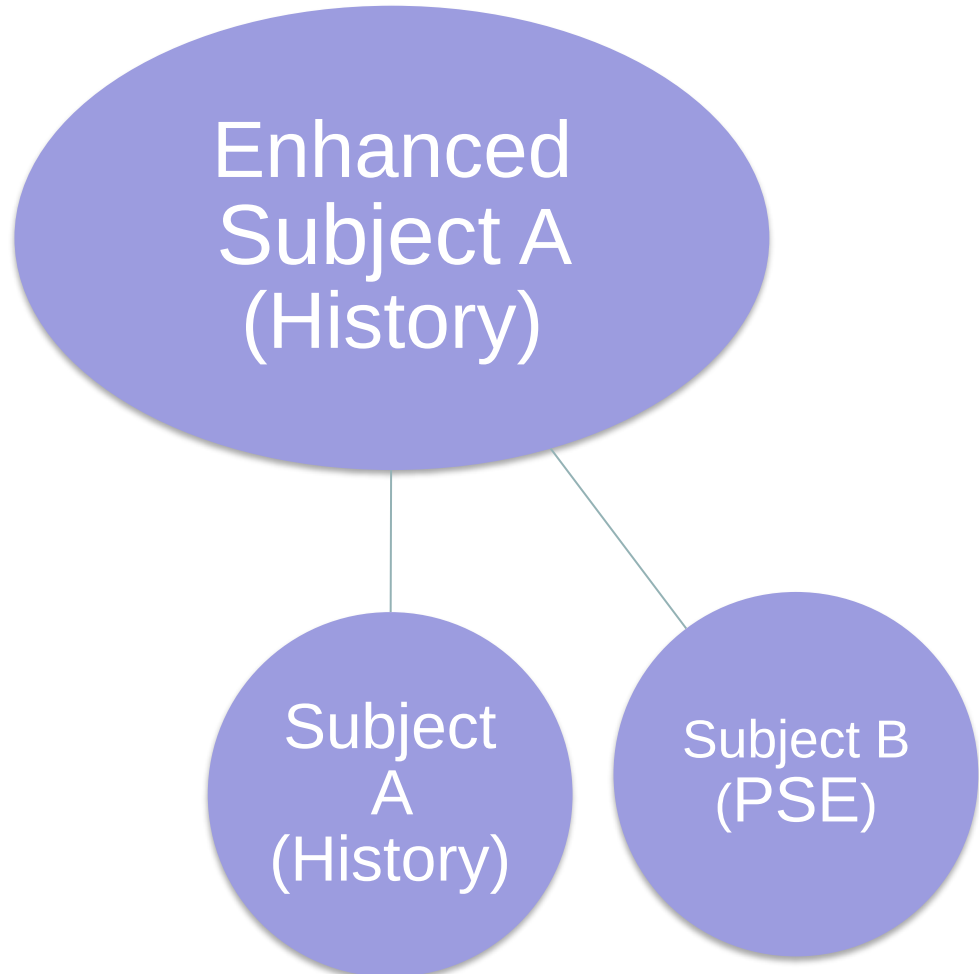


Diagram to show the hierarchical learning model. Barnes (2015, p67)

Benefits of hierarchical cross curricular model of learning in your classroom.

- It generates a sense of belonging, motivations and satisfaction. (Evans & Phillpot 2009 and Roberts, 2006).
- Will improve wider elements of learning. (Barnes, 2015).
- Barnes (2015) states using activities that motivate a particular group of pupils as “way in” to attaining subjects can be seen as motivating and inclusive for pupils.
- The application of core subject knowledge across the curriculum makes literacy and numeracy meaningful (Barnes 2015).

Limitations of hierarchical cross curricular model of learning in your classroom

- Hierarchical cross curricular and teaching and learning knowledge, understanding and skills in the “inferior subject” may be only slightly improved or not improved at all. (Barnes, 2015).
- If pupils don’t have any interest in the activities chosen during your planning they may become unmotivated with the task.

Activity 1:

Pupils will create a timeline of Martin Luther King's life. Literacy and Digital Competence skills will be used to research and choose major milestones to include on the timeline.

Activity 2:

Pupils will take an in depth look at the “I have a dream” speech. They will be doing an activity to identify the features of the text.

Activity 3:

Pupils will use virtual reality headsets and earphones to watch the speech as though they were there. According to Hicks (2016), this will allow pupils to use high quality visualization that far exceeds what's possible in a traditional classroom. Following this, pupils will undertake an oracy task led by a teaching assistant where they will discuss the emotions the people at the time would have felt in a circle time activity.

This activity will allow pupils to become ethically informed citizens who understand human rights and respect the rights of others (Donaldson, 2015, p31).

This lesson is adaptable to other topics or individuals and should be used as a guide to planning activities which incorporate cross-curricular learning.

Curriculum skills:

History:

- Identify significant people understanding why people did things and what caused specific events.
- Historically enquire using a range of sources including ICT (WAG, 2008).

PSE

- Value diversity and equality of opportunity and understand inequality and the effect it has on individuals (WAG, 2008b).

Numeracy	Literacy	DCF
• Transfer mathematical skills to a variety of contexts and everyday situations and Select and construct appropriate charts and graphs with suitable scales. WG (2013).	• Use a range of strategies for skimming. • Identify features of a text and infer meaning that is not explicitly stated. • Explore themes through role play situations. WG (2013).	• Combine a range of multimedia components to produce an appropriate outcome. • Review a video for a selected purpose. WG (2015).

Model 2- Series of science lessons

Theme based cross-curricular style of learning.

This activity will be a series of science lessons which will be a part of a theme based model of cross curricular learning. The lessons will take place over three hours and will be for a group of year 5 pupils. According to Alexander et al. (1992, p21) themes based learning can be described as “a mode of curriculum organisation, frequently enquiry-based, combining aspects of various subjects under a common theme.” Within the activity

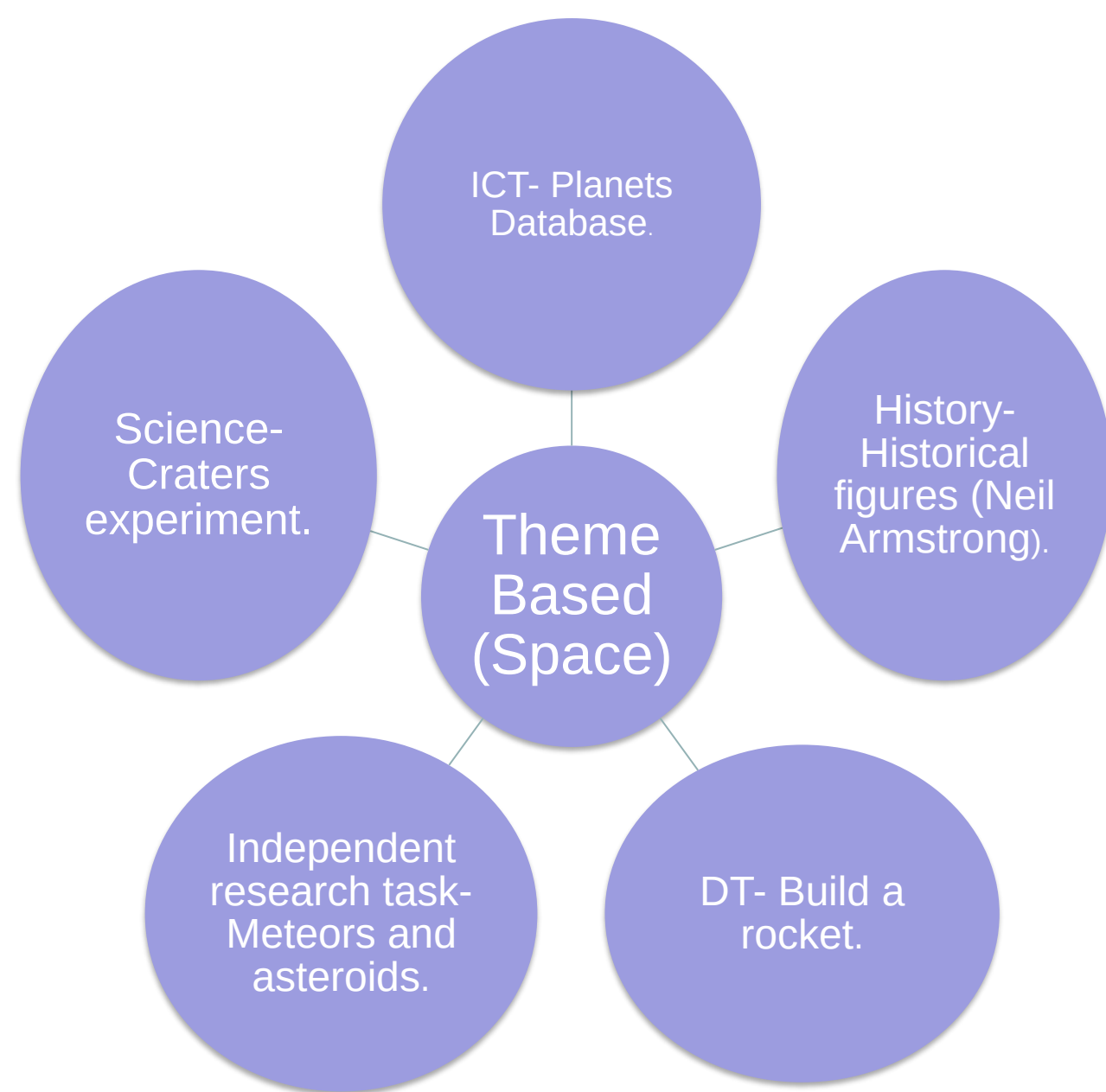


Diagram to show the theme based learning model. Barnes (2015, p70)

the overall theme or topic the class would be studying would be space, and pupils would be undertaking a range of different activities across the curriculum with the main theme of space over riding all the activities. Successful implementation of this model requires in depth planning and it is important to not bend too many subjects into a particular theme (Grigg, 2015).

Benefits of theme based cross-curricular model of learning in your classroom.

- Can be seen to be more relevant and have more meaning to pupils. (Robinson and Aronica 2010; Wrigley et. Al. 2012)
- Children learn best when their learning is connected. (CCEA, 2007, p10)
- Improves communication, enjoyment and emotional literacy (Barnes, 2015).
- Saves teaching time by reaching more curriculum requirements in a smaller amount of lessons

Limitations of theme based cross-curricular model of learning in your classroom.

- Pupils are missing out on learning a core knowledge foundation in individual subjects (Hirsch, 2018) by learning across a range of different subjects.
- Pupils may not reach the depth required in certain areas to gain a full understanding of what they are trying to learn.
- Applying to many subjects to a theme can lead to not enough learning taking place in what you want to do (Barnes, 2011).

The pupils will be undertaking an experiment where they will be investigating what asteroids/meteors leave the biggest craters upon contact. To do this, they will plan, do and review an experiment which will involve pupils dropping different sized/shaped sport balls into a sandpit, measuring and recording the results.

In the first lesson pupils will be working towards the following curriculum skills as they plan the activity:

Science

- Have the opportunity to turn ideas suggested to them into an investigation, identify different types of variables (controlled/independent) and recognise the importance of a fair test. (WAG, 2008c).

Maths

- Make estimates of length based on prior knowledge. (WAG, 2008d).

In the second session, pupils will be doing the experiment in small groups whilst assisted by the teacher and the additional adults within the room, recording their results During this session pupils will work towards achieving the following curriculum skills:

Science

- Take part in fair testing, following a planned approach. Make careful observations and accurate measurements and identify and explain patterns they recognise (WAG, 2008c).

Maths

- Recognise and select appropriate units. (WAG, 2008d).

In the third session pupils will analyse the results they have recorded and use J2E software to create a table to display their results and discuss what they show. Following on, in pairs, pupils will then video themselves discussing what the experiment was like and how they would improve the process. They will use the HP reveal app to tell the marker how the experience felt. During this session pupils will work towards achieving the following curriculum skills:

Science

- Use scientific knowledge to explain cause and effect when concluding and review what they have done to consolidate their own learning.

ICT

- Create and communicate information in the form of a text and table. (WAG, 2008)e.

Numeracy	Literacy	DCF
• Use measuring instruments and select and use appropriate units. • Represent data using lists and tables and draw conclusions from data. WG (2013)	• Use subject specific vocabulary • Use features which show the structure of writing. • Speak clearly projecting voice effectively. WG (2013).	• Create, explore and analyse data sets. • Combine a range of multimedia components to reach an appropriate outcome. WG (2015).