Activity 7 – Cross Curricular

D1: Science supports and links with other curriculum areas and contributes to maximising whole school initiatives while retaining its unique status

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<th>BRONZE AWARD INDICATOR</th>
<th>SILVER AWARD INDICATOR</th>
<th>GOLD AWARD INDICATOR</th>
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<td>Teachers maximise curriculum opportunities by making appropriate links with other subject areas.</td>
<td>Through their planning, teachers have successfully identified appropriate links with other subject areas. Pupil work demonstrates the use of Science as a context for work in core curriculum areas.</td>
<td>Effective links with other subjects are made explicit via planning, with Science maintaining its distinctive character. The contribution of Science to whole school initiatives is clear e.g. PHSE and Citizenship, the spiritual development of pupils, and environmental and sustainability concerns.</td>
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Further criteria that this task may help to evidence: A1, A2, B1, B2, B3, C3.

Cross Curricular Links are not the same as being creative. You can be creative teaching a single subject and not creative when you make links between subjects. This activity considers how to make learning and teaching cross curricular in a relevant and meaningful way. It may produce some creativity!

Outline of task

- Book a staff meeting. You will need a whole session, or a session out of a whole day INSET.
- You will need a stimulus activity for staff to encourage thinking and some coloured pieces of card for them to write on. Some suggestions might be:
  - Observation of ‘Dancing Raisins’ (raisins in fizzy water/lemonade);
  - Observation of M & M’s in small amount of water;
  - Penny Drop (looking at droplets of water being placed on a penny);
  - Making the ‘best’ paper aeroplane (can take a while!)
  - Pencil through a plastic bag of water (push the pencil into and out the other side of a ziplock bag half full of water through the water part);
  - Using any Concept Cartoon – the list could go on!
- Encourage the staff to have a go at the activity whilst thinking of all of the science ‘skills’ from Working Scientifically/Enquiry that they use.
- At the end of the activity produce a mind map of the skills on a whiteboard. In a different coloured pen, start to note which other subjects these skills could appear. This will show that it is ‘skills’ that link subjects in a Cross Curricular way, not just subject knowledge.
- Ask staff in pairs or small groups to note on index cards what activities they could do in each subject to enhance the skill, e.g. English on yellow, Maths on blue, Geography on brown, history on purple etc. Examples might be on the M & M’s in water activity
  - English – focus on descriptive language within a recount (or conclusion);
  - maths – timing the observation stages and presenting these as a graph (presentation);
  - Art – capturing the colours produced (recording);
- Hopefully this will start ideas rolling as to how other activities can be linked without it having to be a big ‘topic’, so even small activities can start to be linked through the skills.
You might now like to consider bigger topics rather than individual activities. The Royal Society of Chemistry (click here) has produced topic webs linked to key areas and ages of the primary curriculum that focus on the science aspects i.e. Chemistry, Physics and Biology, for example in the Stone Age.

When planning your own topic webs and making your own webs, you may find it helpful to consider the following questions:

- Does it have a link to a ‘real life application’ even if a very simple one, but one that the children can recognize in their own lives?
- Is there a bank of these building up?
- Of the topic webs produced, does science lead at least 2 per year?
- Can you access resources easily enough for this to be a practical topic for teaching and learning?
- Are Scientific Skills build up within the topic and clearly identified?
  - For example, there have been many schools running ‘Space’ topics with Tim Peake going to the ISSS. Can you access resources? Can you repeat it and make it relevant and ‘now’ and real with some adaptation? Are the data handling skills building on the maths being taught at the time or previously?

Evidence in submissions from schools has shown that many schools are working on developing the creative curriculum or cross curriculum approaches to the teaching. Where schools have adopted an already existing package in these areas, they have tended to highlight the issue of science being very easily lost if they are not careful. Tweaking of the package has therefore been required.

The support required of the subject leader as this is developed can be very informative for a number of the criteria. Environmental work is often the first aspect of science that is tackled in this area, especially in response to the issue of promoting the outdoor classroom. We would question whether this is all there is to the outdoor classroom.