Rot or Not? An experiment in survival of materials

A class activity adapted from worksheet produced by Archaeology Scotland (http://www.archaeologyscotland.org.uk/)

Key learning points
Some materials survive better than others. Different materials survive better in different environments.

Links into the curriculum
- The archaeological remains we find are influenced by the material they are made from and their environment. This affects the information we have about the past.
- Rubbish today and in the past contains a variety of materials and some will take longer to decay than others.
- Scientific observation and recording can demonstrate changes over time.

What you will need
Recording sheet (see below)  
**Objects (4 of each)**  
Strawberries  
Stoned fruit (e.g. cherries)  
Pottery  
Nails (degreased with methylated spirits)  
Large seeds- burnt and unburnt (e.g. broad bean)  
Cotton cloth  
Newspaper  
Plastic sweet wrapper  
Wood  
Polished coin

Environments
4 watertight, airtight and transparent containers, base of at least 15cm x 30cm  
Dry sand  
Ice  
Potting compost  
Salt  
Labels

Suggested format
Brief introduction to discuss how archaeologists use rubbish to find out about people in the past; what types of materials are thrown away, lost, abandoned or buried; what would survive one week, one year, 100 years, 1000 years; that materials survive better in some environments than others e.g. a strawberry in warm room, fridge or freezer.

Discussion of different types of environments focussing on temperate soils, desert, arctic and marine.

Each group picks one of the four environments and sets it up in the container. Soils- potting compost, watered. Desert- dry sand. Arctic- ice. Marine- sand, water and salt.

Each group is given one each of the materials and notes its appearance on the record sheet. Use of precise, scientific terms is encouraged. The materials selected are either those commonly used in the past or ones children will be familiar with.

The objects are placed into the environment. A photograph at this stage is helpful.
The box is sealed and placed in an appropriate position e.g. in the freezer, on the radiator, by the window.

Every week the boxes are opened and changes recorded. Some changes will be evident within a week, others will take several weeks.

**Outcomes**
Have to wait and see!

Key discussion points will be:

- Which material survives in all environments?
- Does any material not survive at all?
- In which environment did each material survive best?
- What does this tell us about what archaeologists might find when excavating a site?
- How difficult is it to build up a picture of the past when some materials don’t survive?

**Hazards**
Children must wash their hands after setting up the boxes and particularly after handling soil.

**Recording sheet**
This works best copied at A3 and shared between 2 children.

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**Rot or not? Recording sheet**

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Our names are ................................................. Our environment is ..........................................................

<table>
<thead>
<tr>
<th>Date item buried</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Friday 1st March</td>
<td>Strawberry</td>
<td>Red, firm</td>
<td>Red, firm</td>
<td>Red, firm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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Cathy Batt 6.3.13