

NE00H Teaching for home learning: primary science

Example learning sequence plan: Year 5 properties and changes of materials

This template is to aid thinking about the actions required of the teacher, support to be provided by parent/career and intended activity of the pupil during a learning sequence. This sequence may take place over a number of days. The first two columns are the same as the EEF Planning Framework available at <https://educationendowmentfoundation.org.uk/covid-19-resources/support-resources-for-schools/>, which aims to develop self-regulated learning and metacognition as part of a learning sequence.

Approach	What is it?	Example
Activate	Prompting pupils to think about what they have learnt previously, that will help them with their next steps	Provide a concept map for children to complete on states of matter and changes of materials. Ask them to write down things that they think they know, using relevant vocabulary. This vocabulary could be partially provided with visual prompts to aid learners.

Explain	Explicitly teaching strategies to pupils and helping them decide when to use them.	Provide an example of a mixture of sand and pebbles and say that I need to separate the two substances. Explain that I need to think about the properties of the two materials and how this might help me. Say that I use my knowledge of the size of the materials to decide on how to separate them, in this case the pebbles are much bigger than the sand, so I can use a colander to separate them. A further example may also be provided with 3 materials flour, paperclips and peas. Ask children what do we know about the properties of these 3 things that can help us to separate them from the mixture. Write the property of each that make it different to the others. Here the paperclips are magnetic and the flour particles are much smaller than the sand. Ask how can we use this knowledge to separate them. Then show the material with the separation method next to it.
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Practise	Pupils practising strategies and skills repeatedly, to develop independence.	Provide examples of different mixtures to separate based upon their properties. Use visual prompts to show the material, so children can think about the properties that it may have. Also provide methods of separation with images, so children have ideas to choose from. Further questions can ask children to choose without visual prompts and explain their reasoning.
Reflect	Pupils reflecting on what they have learnt after they have completed a piece of work.	Provide a reflection sheet for children to evaluate their learning. Say two things that they think they have done well today and one thing that they wish to do more of/work on. Prompt sheets can be provided, so they can rate their own progress, smiley faces, stars etc.

Review	Revisiting previous learning after a gap.	Provide a cartoon with a scenario that a naughty pixie has been and messed up a chef's kitchen. The resulting mixture of flour, peas, salt, raisins and cornflakes needs separating. Children need to say how they would separate it back to the original materials and why.
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