

Year 5 – The Science of States – 2 half terms MATERIALS SCIENCE SPRING 1

Prior Learning: Children should be able to identify solids, liquids or gases and should know that some materials change state when they are heated or cooled

Concept: Materials

In this unit we will discover all about the properties of various materials.

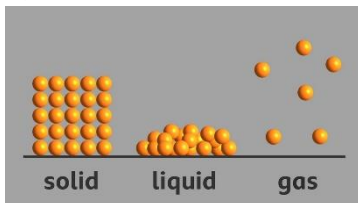
Working scientifically:



Plan and set up an enquiry



Observe closely



solid

liquid

gas

4. TWAL to investigate how materials can be separated

In this lesson we are going to investigate how to separate a solid which has been dissolved in a liquid. We will make a prediction and then we will carry out our experiment on over the next week.



Plan and set up an enquiry



1. TWAL to separate materials

In this lesson we will be using various different methods of separating different materials. We will use a sieve and colander to do this. We will do an experiment to separate plastic, rice and flour - what will we need?



Materials can be separated in different ways



Observe closely

5. TWAL to investigate how materials can be separated

In this lesson we will observe the results of our experiment from last week and write up the results from it. Were our predictions correct?



Observe closely

Some materials can be separated from solutions by evaporation.

2. TWAL to separate materials

Today we will learn how to separate different metals- using magnetism! Use your learning from last week- set up an experiment to test the different metals you have for magnetism. Video: <https://www.bbc.co.uk/bitesize/clips/zcntsbk>



Plan and set up an enquiry



Observe closely

That separation using magnets is used every day life



6. TWAL about changes to materials that are reversible and irreversible

In this lesson we are learning about what makes a change to a material reversible or irreversible. We will look at some everyday reversible and irreversible reactions and then use our knowledge to sort them correctly.



Some reactions cannot be reversed.



3. TWAL to understand how solids can change

In this lesson we will learn the scientific vocabulary about changing solids. Then we will carry out a fair test to test the solubility of some everyday substances. Fair test video:

<https://www.bbc.co.uk/bitesize/topics/z2ddmp3/articles/zpctrwx>



Words we will know!

