

Mysterious Materials

Challenge One: Soluble and insoluble materials – investigation. Ask an adult to work with you. You will need:

- A clear plastic cup or glass
- A teaspoon
- Materials to test: a variety of small grained solids (e.g salt, white sugar, brown sugar, flour, rice, lentils)

1. Fill ½ cup or glass with lukewarm water.
2. Add ½ teaspoon of your first material.
3. Stir slowly for a minute and watch carefully what happens.
4. Stop stirring and watch again.
5. Record your observations in a table. You can use the template provided or draw your own.
6. Classify your substance as ‘soluble’ or ‘insoluble’.
7. Wash out your cup and repeat for the other materials.



Challenge Four: Information poster:

Write an information poster showing the different states of matter and the changes that happen. Include diagrams, text boxes, parenthesis & photos. This can be done electronically or by hand.

Challenge Two – investigation

You will need:

- water
- salt
- a raw egg
- a measuring jug, saucepan or bowl
- a spoon
- your home learning book

You will need to write up your observations into your home learning book of what you notice happening each time you add salt. You can also draw a diagram or take some photos.

Fill your bowl/container with cold water nearly to the top. Gently drop the egg into the bowl and watch it sink. **What happened?**

Take the egg out and stir a big spoonful of salt to the water. Put the egg back to see if it still sinks. **What happened? What did you notice?**

Keep adding spoons of salt to the water until the egg floats. You might need to keep stirring a while to get the salt to dissolve. **What do you notice? What happens each time you add a spoonful of salt?**

Using your observations, write down why you think that having salt in the water makes the egg float.

Can you think of any other examples where an object can float in salty water?

Challenge Three

Solids, liquids and gases

Draw a table in your book to present your findings. Find 5 of each state of matter, using objects around the house and put them into the correct group.

e.g bed, steam, water, hot chocolate, book

Remember: you are aiming to complete 2 pages of A4 for each piece of learning.

You need to hand it in on a MONDAY.

Please continue to practise your times tables, spellings and reading at least 3 times a week.

Date:	Challenge	Checked
17.01.2022		
24.01.2022		
31.01.2022		
7.02.2022		

I can identify and compare soluble and insoluble materials.

Challenge one

Name of material	Observation - what happened?	Soluble or insoluble?

Word bank to help you:

- soluble
- dissolve
- transparent
- sediment
- insoluble
- solution
- coloured
- cloudy
- clear