

Dissolving and Separating Mixtures

Complete **five** activities by Friday^{XXX}. The sensible thing would be to do one activity a day. You do not need to do all eight on the grid. Choose the ones that interest you the most. You can do the activities either in google docs, google slides or on paper.

BBC Bitesize: What is Dissolving

Click on this link to [BBC Bitesize](#) watch the video and read the information provided.

Write a definition for the following words:

Dissolve, solution, soluble substance, insoluble substance,

Share with your teacher.

Dissolving experiment!

You will need:

- Clear container
- Water, and Salt or Sugar

How can you dissolve the most salt or sugar in water?

1. Fill your clear container with cold water, add a teaspoon of salt or sugar. What can you see?
2. Now give it a stir, what happened? Did it dissolve?
3. How many teaspoons can you dissolve while stirring before you see some settle at the bottom?
4. Try again with warm water.

In warm water can you dissolve more teaspoons of salt or sugar?

What else can you do to dissolve more salt or sugar in water?

Leave some of the solution in a shallow dish for 48 hours, what happens.

Give it a go and write a short report about what you found out.

Share with your teacher.

Soluble and Insoluble

Not all materials will dissolve in water. Hunt around your house to find a variety of substances like; curry powder, salt, sugar, flour, pepper, etc.

Make a table, write all of your substances down the left side.

Add a teaspoon of each to a fresh glass of water and stir.

Record on your table if each substance is **soluble** or **insoluble**.

Share with your teacher.

BBC Bitesize: What is separation

Click on this link to [BBC Bitesize](#) Watch the video and read the information provided.

Write a definition for the following words:

Sieving, Filtration, Evaporation

Share with your teacher.

Build it: Water Filter

All over the world people need clean water to survive and be healthy. Can you build your own water filter to clean dirty water from a puddle, pond or stream? Watch this [YouTube video](#) for instruction.

You may not have everything you need, can you find a substitute?

Note: Do not drink the water.

Share with your teacher.

Dissolving Art

Some inks dissolve in water, this is called **chromatography**. Can you make some **chromatography** art?

You'll need:

- Variety of felt pens and markers
 - Paper Towel or Coffee Filter
1. Cut your paper into strips
 2. Draw a line with a different pen $\frac{1}{2}$ of the way up on a each strip
 3. Dip the bottom bit of the strips in a glass of water.
 4. Watch the ink travel up the paper.

Which pen traveled furthest?

Why do you think this is?

Share with your teacher.

Problem Solving

Ask someone in your house to help with this one. Get them to fill a small plastic bag or container with a mixture of 6 materials like; coins, lego, seeds, stones, salt, rice, pasta etc.

Now use Sieving, Filtration, and Evaporation to separate out the mixture.

Can you separate all six materials?

Share with your teacher

What is an Engineer?

Find out more about engineering from [Tomorrow's Engineers](#).

Engineers do all sorts of work. Choose one that interests you and watch the video.

Draw a picture of yourself as an Engineer and where you would like to work.

Share with your teacher.

By investigating common conditions that increase the amount of substance that will dissolve or the speed of dissolving, I can relate my findings to the world around me. SCN 2-16b