

Separation techniques

How do you separate different solids from liquids? Find out how with some basic kitchen equipment.

Watch the video here: <https://bit.ly/3lI8Q4B>

In this video, education coordinator (<https://rsc.li/2EVZq4m>) Ross demonstrates how to separate mixtures with a few pieces of kitchen equipment. This simple activity can be set for students to try at home with a responsible adult or used as a classroom experiment.

Equipment list

- Colander
- Sieve
- Muslin/cheese cloth
- Bowls
- Water
- Solids to mix into the water (rocks, dry rice, dirt)

Health and safety

- Make sure that you thoroughly clean any equipment before using for food.
- Discard any water used at the end of the experiment (it will not be clean enough to drink).

Activity instructions

1. Mix some rocks, dry rice, and dirt into the water.
2. Pour this mixture through the colander into a large bowl. See what had been caught by the colander and separated from the water.
3. Pour the water through the sieve into another bowl. See what materials have been separated from the water.
4. Pour the remaining mixture through a cheese cloth/muslin into a bowl.
5. Look at how clean you have been able to make the original water mixture and see how much has been separated at each stage.

Explanation

Knowing how to separate solids from liquids is a really important science skill. In fact, most chemistry experiments have some sort of separation in them. Whilst some mixtures need more involved methods, often we can physically separate solids from a mixture with liquids. Have a go your learners and try different mixtures and separation equipment, like coffee filter paper, different sized sieves, and tea strainer.

Also check out

- Separating mixtures (<https://rsc.li/31OGuxl>) – further classroom experiments exploring separating mixtures, plus related resources in this chapter from *That's Chemistry!*
- More simple experiments using everyday equipment, which your learners can try at home or you can bring to the classroom on our YouTube playlist (<https://bit.ly/2YZ7kRN>).
- Read the CLEAPSS guidance on practical activities for pupils at home during extended periods of school closure, GL339 (<https://bit.ly/32Q8wli>).
- Read the SSERC guidance for primary home learning (<https://bit.ly/3bhG0Dn>).

This resource was downloaded from here: <https://rsc.li/2DmfTP0>