

3. Rice and sand



1 hour

Sieving rice from a mixture of rice and sand.

OBJECTIVES

- To distinguish between an object and the material from which it is made.
- To identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock.
- To describe the simple physical properties of a variety of everyday materials.
- To compare and group together a variety of everyday materials on the basis of their simple physical properties.
- To use their observations and ideas to suggest answers to questions.

RESOURCES

(Per group of 4 children unless otherwise stated)

- Bucket of dry fine sand
- 250-500g dried rice
- Large sieve or colander¹
- Large tub (wider than the sieve) or spare bucket Tub (to gather the rice in)
- [Activity sheet 8](#), made into story cards and/or [Activity sheet 9](#), made into prompt cards S and/or
- [Activity sheet 10](#) (per child)

INTRODUCING THE ACTIVITY

The idea of looking for differences is reinforced, observing the sand and rice in the mixture. The children should realise that the grains of rice are larger than the grains of sand. However, they should test ideas of their own before using a sieve or colander. Ideas may include 'sprinkling' the rice out of the sand through the fingers of their hands, using a fork or spoon, wetting sand, finding out if the rice will float, etc.

If wetting sand, ensure only a small quantity of sand has water added, so enough dry sand is available to carry out other ideas.

- How is the sand different from the rice?
- Can any differences help you sort the rice out quickly?
- Is there anything in the picture that gives you an idea for sorting rice from sand?

¹ Denotes items required for a structured rather than an open-ended approach.

On page 8 of the storybook sieves and colanders are shown near the sand tray. If the children still need help, the teacher can give the children a box of resources containing sieves and colanders amongst other things, for them to investigate.

The children pour the mixture into the sieve or colander, holding the colander over an empty bucket. The sand is replaced in the sand tray, and the rice put in a labelled tub.

EXTENSION ACTIVITY

The children investigate the use of sieves with holes of different sizes. More able children can make their own sieves for sorting mixtures such as dried peas and lentils or marbles and Lego bricks. The children must realise that the holes must be bigger than the marbles/lentils, but smaller than the Lego bricks/dried peas.



Top view



Side view

A sieve can be made from a circular piece of card with holes for the marbles, dried peas, etc. to fall through. A strip of card is then taped around the edge.



Conical sieves can also be made from a circular piece of card with holes in for the sand to fall through.



Cut the card to the centre, to overlap the cut edges to make a cone. Secure the shape with tape.