

Nova's Science Lab: Separating Mixtures

Learning objective: To identify and explain methods for separating mixtures, including filtering, sieving, and evaporation.

Use your scientific knowledge to complete the drawing of Nova's laboratory experiments. Follow the steps below to label and illustrate how different materials can be separated.

Draw: Draw a laboratory workbench scene with three sections. On the left, draw a filtration setup using a beaker and funnel. In the middle, draw a sieve separating a mixture of large and small pasta shapes. On the right, draw a small tripod stand with a Bunsen burner heating an evaporating dish. The style should be clean, clear, and scientific, suitable for a Grade 4 workbook.



Label words: Filter paper · Residue · Filtrate · Sieve · Evaporating dish · Solution · Mixture

Steps:

1. Step 1: Draw a funnel containing a piece of filter paper. Label the solid left behind as 'Residue' and the liquid passing through as 'Filtrate'.
2. Step 2: Draw a bowl of mixed sand and marbles. Which tool would you use to separate these two solids? Explain why.
3. Step 3: If you have a mixture of salt and water, why can't you use a sieve to separate them?

4. Step 4: Draw a small flame under an evaporating dish containing a salt solution. Label the part that will turn into gas.
5. Step 5: Nova mixes iron filings and sand. Suggest a method to separate the iron filings from the sand.