



## SEPARATE SAND, SALT, AND IRON (1 of 2)

 30-45 minutes + waiting time + questions and journal time

 Follow all safety instructions from LearnLibre.com during the experiment.



### Before the Experiment

Find a safe and appropriate place to do the experiment, get any safety equipment you will need, and gather your materials on a tray.

### Materials

- Petri dish (with lid)
- 5mL (1tsp) sand
- 5mL (1tsp) salt
- 5mL (1tsp) iron filings
- Magnifying lens
- Tweezers
- Magnet in plastic baggie (do not let the iron filings touch the magnet directly – they will be very hard to get off!)
- Beaker(s)
- Water
- 1 Piece filter paper

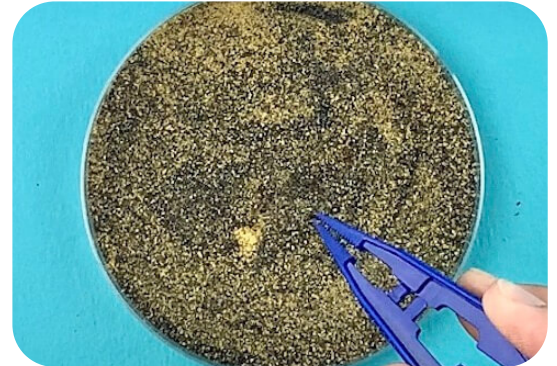
### Procedure

1. Put sand, salt, and iron filings into the Petri dish.
2. Put the lid on the Petri dish, and carefully shake to mix (hold the lid on tight!)
3. Using the magnifying glass and your tweezers, try separating the sand, salt, and iron filings – is it easy or hard? How long do you think it would take to separate all of them?
4. Using the rest of the tools (magnet, beaker, water, filter paper) think of a way to separate ALL of the sand, salt, and iron filings. If you're stuck, check the hints section at LearnLibre.com. The hints section also has directions on how to fold your filter paper into a cone shape.

## SEPARATE SAND, SALT, AND IRON (2 of 2)

### Questions

1. Can you describe some of the differences between sand, salt, and iron filings? What will they mix with? What will they not mix with?
2. Were you able to separate the iron from the mixture? The sand? The salt? How did you do it?
3. Did you use the scientific method to help you separate this mixture?



[See answers by scanning the QR code at the top of the 1st page.](#)

### Clean-up

Wash and dry any tools you used, put materials back where you got them from, clean your work station.

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