



## FILTERING A (1 of 2) SUSPENSION

 15-25 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

- 3 beakers
- 3 test tubes with caps
- Test tube holder
- Funnel
- Sand
- NaCl (salt)
- CaCO<sub>3</sub> (chalk powder)
- Water
- 3 Pieces filter paper

### Procedure

1. Using your funnel, fill  $\frac{1}{4}$  of the first test tube with sand,  $\frac{1}{4}$  of the second test tube with CaCO<sub>3</sub>, and  $\frac{1}{4}$  of the third test tube with salt.
2. Using your pipette, fill each test tube with water until it is  $\frac{3}{4}$  full. Put a cap on each test tube.
3. Fold each piece of filter paper into a cone shape, and place it into a beaker.
  - Directions for folding your filter paper can be found at LearnLibre.com.
4. Place your thumb over the cap, and vigorously shake each test tube. Observe what happens.
  - Make sure that all of the salt dissolves into the water. If it will not all dissolve, you can pour part of the solution out of the test tube, and add more water until the salt dissolves.
5. Remove the cap from each test tube, and pour the contents into your three filtration devices. (Sand mixture into the first beaker, chalk powder mixture into the second beaker, and salt mixture into the third beaker). Observe what happens.
6. Leave your set up for 10-20 minutes, and check on it again.

## **FILTERING A** (2 of 2) **SUSPENSION**

### **Questions**

1. What is a suspension? What is a solution?
2. Are the following mixtures SOLUTIONS or SUSPENSIONS?
  - Sand and water
  - Chalk powder and water
  - Salt and water
3. How do filters work?
4. What are some examples of filters outside of the science lab? Think about your everyday life, and about big factories or machines.



[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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