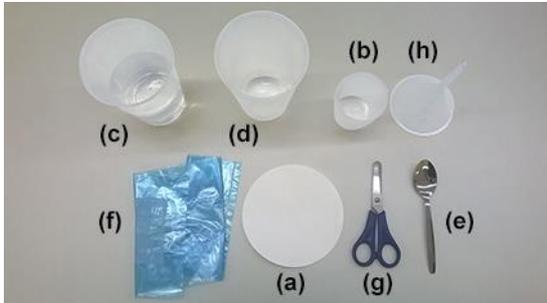


Water 2: We clean water

1 Apparatus and materials

Your materials



- 1 sheet of filter paper (a)
- 1 small plastic cup (100 ml) (b)
- 1 large plastic cup (500 ml) (filled halfway with water) (c)
- 3 large plastic cups (500 ml) (d)
- 1 spoon (e)
- 1 plastic bag (f)
- 1 pair of scissors (g)
- 1 funnel (h)

Materials for everyone



- Cooking oil
- Clay
- Silica sand

1.1 Safety information

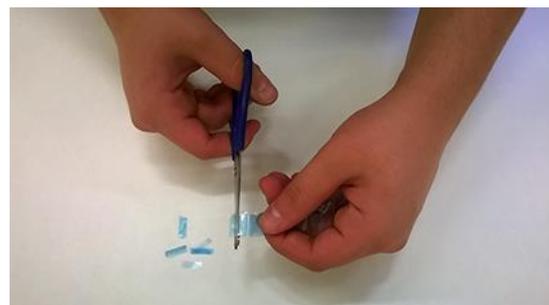
The materials may be used only as instructed by your teacher or as described in the experimentation instructions.

2 Preparing the experiment

2.1 Plastic snippets

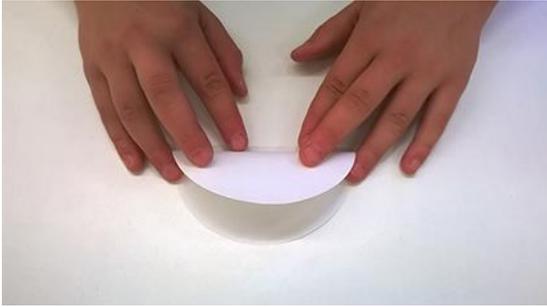


1. Cut a 1-cm-wide strip from the plastic bag.

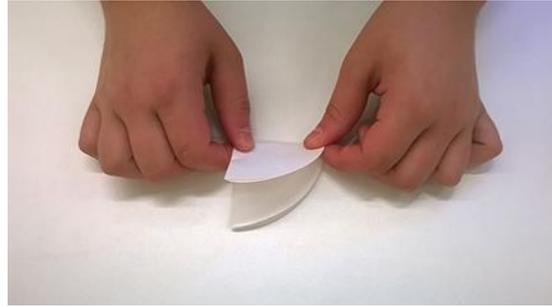


2. Cut the plastic strip into small snippets.

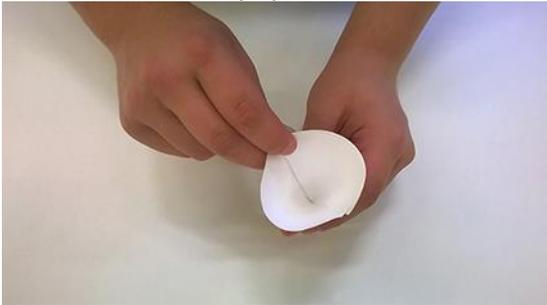
2.2 Filter paper



1. Fold the filter paper once in the middle.



2. Fold the filter paper again in the middle.



3. Open the paper into a pocket.



4. Place the filter paper in the funnel. Place the funnel in a large plastic cup without water.

2.3 Dirty water



1. Place one spoonful of silica sand in the large plastic cup with the water.



2. Add a spoonful of clay.



3. Add a spoonful of cooking oil.



4. Add the plastic snippets.

2.4 Assignment 1

Stir the dirty water with the spoon for 20 seconds.



2.5 Assignment 2

Observe the dirty water for two minutes.
Note your observations.

2.6 Assignment 3

Read the following text.

Objects either float on water or sink. The material's own weight, which is determined by its density and volume, is responsible for this action. The density of water is 1 g/cm^3 . Objects with a higher density than water sink to the bottom. They are heavier than water.

Materials with a lower density than water float on water. They are lighter than water.

Materials	Density
Cooking oil	0.84 g/cm^3
Plastic snippets (polypropylene)	0.9 g/cm^3
Water	1.0 g/cm^3
Silica sand	2.6 g/cm^3
Clay	3.95 g/cm^3

2.7 Assignment 4

True or false? Mark the correct answer with an X.

	True	False
a) The plastic snippets have a lower density than water. They float on water.		
b) Silica sand has a higher density than water and therefore floats on water.		
c) Materials with a density of less than 1 g/cm ³ are lighter than water. They float on water.		
d) Clay has a density of 3.95 g/cm ³ . Clay is heavier than water and sinks to the bottom.		

2.8 Assignment 5

Conduct the experiment according to the instructions.



1. Use the spoon to skim off the plastic snippets and the cooking oil into the small cup.



Result



2. Carefully pour the dirty water into a large plastic cup. This process is called decanting.



Result



3. Carefully pour the dirty water into the funnel with the filter paper. This filters the water.



Result

2.9 Assignment 6

Describe the experiment based on the pictures. Form sentences using the language aids.



Then
First
Finally
Next

I

pour
filter
skim off

oil
dirty water
plastic snippets

in
with

spoon
filter paper
cup

2.10 Assignment 7

Draw arrows to correctly match the term, picture, and explanation.

skim off



I pour the dirty water into the filter.

decant



I skim off objects on the water's surface.

filter



I pour off the dirty water.