Science is Fun!

Take the Challenge

Sofia, Marcus and Zara are filtering dirty water. They all make different **predictions**.

The water will be less dirty when it comes out.

Zara's prediction

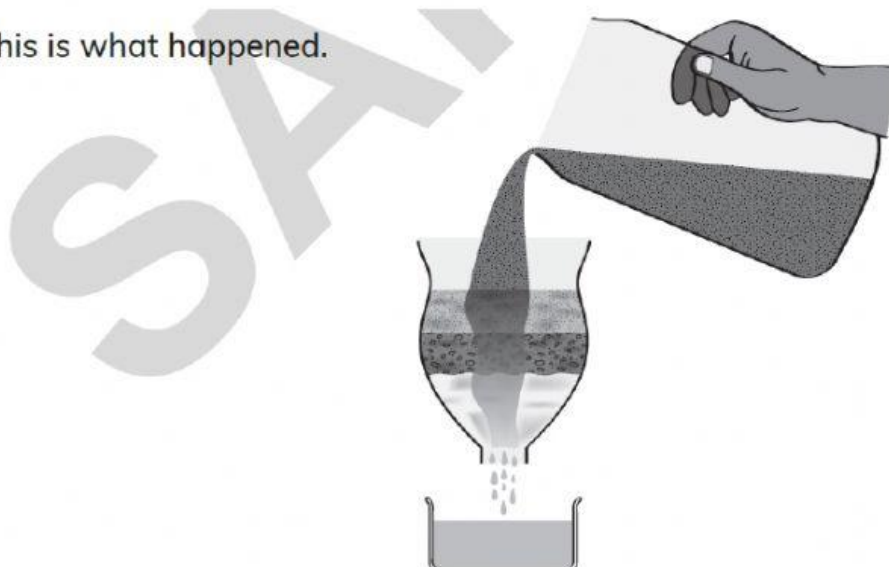The water will still be very dirty when it comes out.

Marcus' prediction

The water will come out clean.

Sofia's prediction

This is what happened.

Here are some observations:

1. *The mixture was dark grey in colour.*
2. *The mixture that passed through the filter is light grey in colour.*
3. *The mixture that passed through the filter has no pebbles.*
4. *The mixture that passed through the filter might have some microorganisms (tiny living things) that our eyes can't see.*

1. a Was Sofia's prediction correct?

   b How do you know?

2. a Was Marcus's prediction correct?

   b How do you know?

3. Was Zara's prediction correct?

Can these mixtures be separated using a filter?

4. a Water and sugar

   b How do you know?

5. a Vinegar and salt

   b How do you know?

6.a Cooking oil and salt

   b How do you know?

7. a Muddy water

   b How do you know?

8. a Water and pepper powder

   b How do you know?