Grade 7 Science
Unit 3: Mixtures and Solutions
CORE LAB 4- PART 3

Name:_____

Partners:

_____ _____

_____ _____

Problem: How can we separate homogeneous mixtures (solutions)?

Materials:

•2 beakers (250 mL)
• black marker pen (water soluble)
• water
• scissors
• tape
• filter paper
• black marker pen(permanent)
• 2 plastic straws
• ruler
• waxed paper

Procedure:

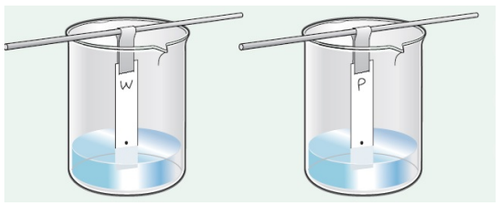
1. Cut the filter paper into a narrow strip, about 2 cm wide. Make the strip long enough to fit inside the whole height of the beaker. Then make a second paper strip the same way.

2. Add water to each beaker until it reaches a depth of about 1 cm.

3. Use the water-soluble marker to make a dot of ink that is about 1.5 cm from the end of one paper strip. The dot of marker ink should be about 3 mm in diameter. At the other end of the strip, use a pencil to write the letter W (for water-soluble).

4. Repeat step 3 with the permanent marker and the other paper strip, but write the letter P (for permanent).

5. Tape the end of each strip to the centre of each straw so that the strips form a T-shape with the straws.



6. Place each straw across the top of a beaker so that the bottom of each strip hangs in the water and the ink dot is a few millimetres above the water. You might have to adjust the length of the paper strips so that the end with the ink dot is above water level.

7. Leave the beakers undisturbed until the colours have moved a few centimetres up the paper strips. Then remove them and leave them to dry on some waxed paper.

8. Clean up and put away the equipment you have used.

Observations:

Draw a picture of your setup:

Sketch and describe what you observed on each paper strip.

Analysis:

1. If you had forgotten to label the paper strips, how could you know which marker you had used to make the ink dots?

2. Is ink a mixture of different substances? Justify your answer

3. Do you think you could put the separated colours together again? Describe what you would do and explain why you think it would work.

Conclusion: