The City School

Science
Class 8
Topic: Mixture
Reinforcement Worksheet

Name:_____Sec:_____Date:_____

Objective

Q.1 MCQs

1) A process to separate insoluble solid from liquid is
   a) Evaporation b) Filtration
   c) Condensation d) Crystallization
2) Gases from the air can be separated by
   a) Filtration b) Distillation
   c) Fractional distillation d) Chromatography
3) A process for the separation of colour pigments is
   a) Distillation b) Evaporation
   c) Chromatography d) Freezing
4) Petrol from the crude oil can be obtain through
   a) Chromatography b) Fractional distillation
   c) Solar distillation d) Simple distillation
5) Air is a type of
   a) Gases b) Mixture
   c) Compound d) Elements

6) Brass is an alloy of

a) Copper and Zinc b) Copper and Tin

c) Iron and Copper d) Zinc and Silver

7) Diamond is an example of

a) Alloy b) Element

c) Mixtures d) Compound

8) Which of the following separation technique has been used to separate more than two liquids with different boiling points?

a) Chromatography b) Distillation

c) Fractional Distillation d) Evaporation.

9) What is the residue obtained when sand and salts solution is filtered?

a) Sand b) Salt

c) Water d) No Residue

10) Which of the following are mixtures?

i) Air ii) Distilled water iii) Fizzy drink iv) Bronze

a) (i) and (ii) only b) (i) (ii) and (iii) only

c) (i) (ii) and (iv) only d) (i) (iii) and (iv) only

Q2. State whether True or False. Correct the false statement.

i) Chalk in water can be separated by filtration. [ ]

_____

ii) Police scientists use chromatography to solve crimes. [ ]

_____

iii) Alcohol and water can be separated easily by fractional distillation. [ ]

_____

iv) Distillation involves boiling and condensation. [ ]

_____

v) Pure water boils at different temperatures in different parts of earth. [ ]

_____

Q3. Match the Column.

Column A	Column B
Chromatography	insoluble solid
Evaporation	100 °C
Condensation	Blood
Distillation	Liquid gases
Filtration	Distilled water

Q4. Match the following gases in air with the percentage composition and write the answer in column 'C'.

Gases in Air (A)	Percentage Composition (B)	Column 'C'
(i) Oxygen	(a)78%	
(ii) Carbon Dioxide	(b)Variable	
(iii) Nitrogen	(c)21%	
(iv) Rare Gases	(d)0.03%	
(v) Water Vapours	(e) 1%	

Q5. Name the method by which you will separate the following mixtures:

(i) Iron Filings & Sulphur _____

(ii) Different Coloured Dyes _____

(iii) Ink & Water _____

(iv) Sand & Salt in Water _____

(v) Different Gases in Air _____

Q6a. State whether air & water are mixtures or compounds. Justify your answers giving two reasons for each.

_____

_____

_____

_____

_____

b. Hydrogen is the lightest element. However, Helium is used in hot air balloons instead of Hydrogen. Explain.

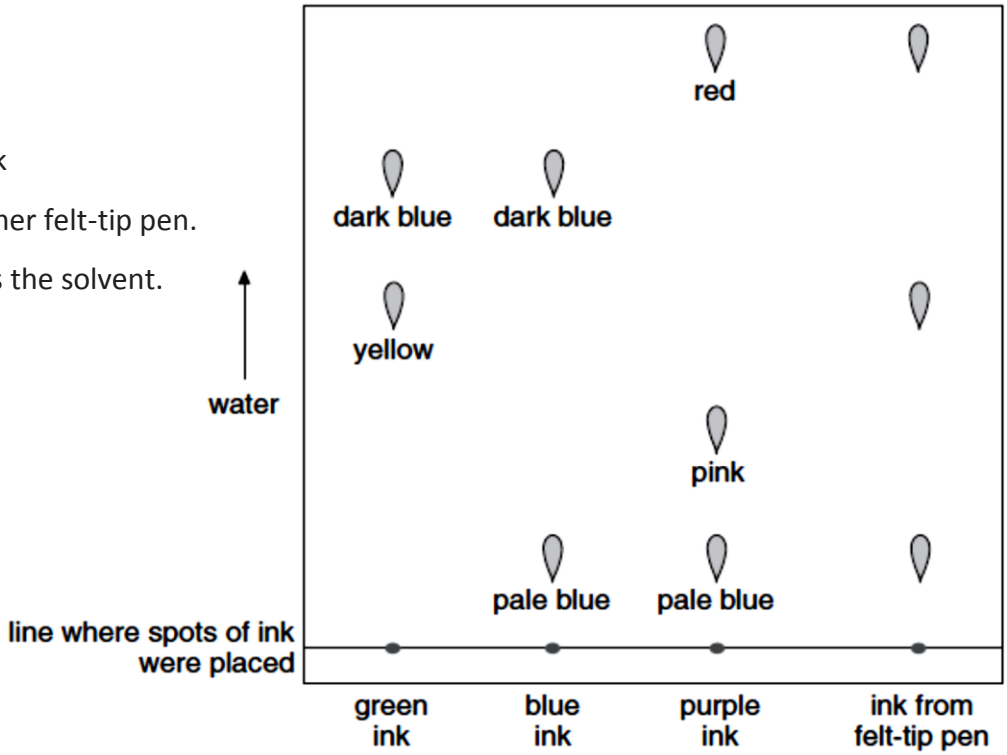
_____

_____

Q7. Susie used chromatography to identify the coloured substances in the ink from a felt-tip pen. She used:

- green ink
- blue ink
- purple ink
- ink from her felt-tip pen.

She used water as the solvent.



Look at the diagram above.

(a) (i) Which colours were present in the ink from the felt-tip pen.

_____

(ii) How many coloured substances were there in green ink? How can you tell?

_____

_____

(iii) Susie placed the spots of ink on a line on the chromatography paper as shown in the diagram. To draw the line, Susie had to choose a felt-tip pen or a pencil.

Which **one** should she use?

_____

_____

(iv) Give the reason for your answer.

_____

_____

(b) Susie used water as the solvent in this experiment.

When she repeated the experiment with a different set of pens, it did **not** work.

She then used ethanol instead of water.

Suggest why the experiment worked with ethanol but **not** with water.

_____

_____

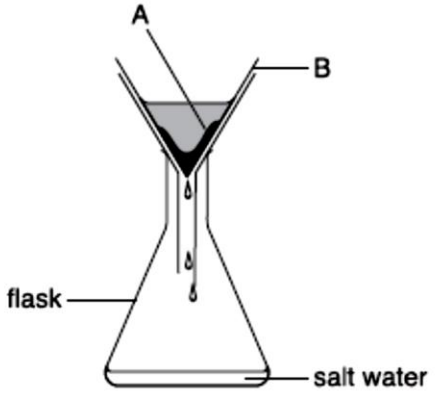
Q8. Chris collected some sea water near a beach. The sea water had salt dissolved in it. It had sand mixed in it.

(a) Chris separated the sand from the salt water as shown below

(i) What is this method of separation called? [1]

Tick the correct box.

Chromatography	☐	distillation	☐
filtration	☐	magnetism	☐



(ii) What is substance A? _____

(iii) What is the part labelled B ? _____

(b) Chris poured some of the salt water from the flask into a dish.

He put the dish on a balance and left it in a warm room for a week.

(i)

Work out the decrease in mass: _____g

(ii) After one week there was a white solid but no liquid in the dish.

What had happened to the water in the dish?

_____

(iii) What was the white solid left in the dish?

_____