

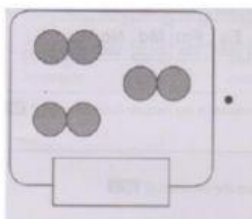
Answer the following question.

- Which of the following statements about the characteristics of the mixture is true?
  - Mixtures are formed by chemical reactions.
  - The physical properties of a mixtures are different from those of its components.
  - The different types of particles in a mixture are mixed in a fixed proportion
  - Mixtures can be broken down into simpler substances by using physical methods.
- Which of the following mixtures can be separated by filtration?
  - Water and sand
  - Water and oil
  - Water and sugar solution
  - Sand and salt mixture
- Which of the following mixture is correctly matched with its method of separation?

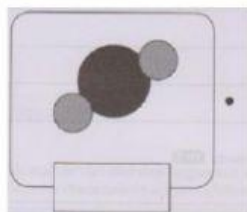
	Mixtures	Method of separation
A	Water and alcohol	Filtration
B	Flour and sand	Sieving
C	Water and sand	Distillation
D	Oil and water	Chromatography

- Which of the following groups consist of compounds only?
  - Sugar, soil and diamond
  - Salt, toothpaste and soap
  - Plastic, chlorine and petrol
  - Oxygen, hydrogen and nitrogen

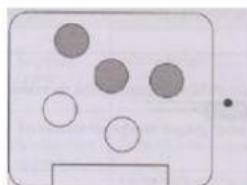
Match the diagram below to the correct meanings to show the differences in matter.



A substance that consists of a combination of two or more atoms chemically bonded together.

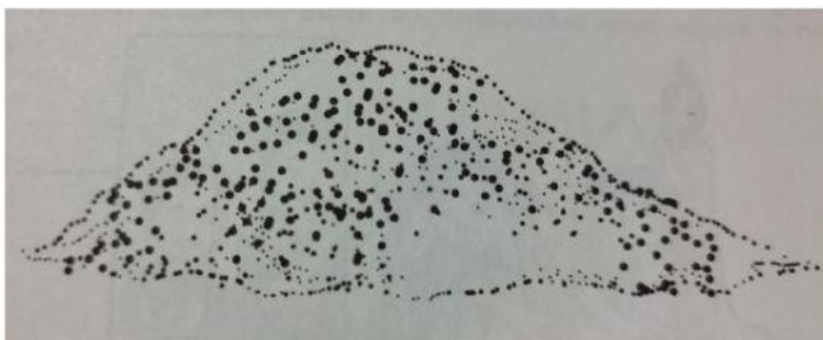


A substance that consists of a combination of two or more atoms physically mixed together.



A substance that consists of only one type of atom.

Diagram shows a mixture of sand and iron powder.

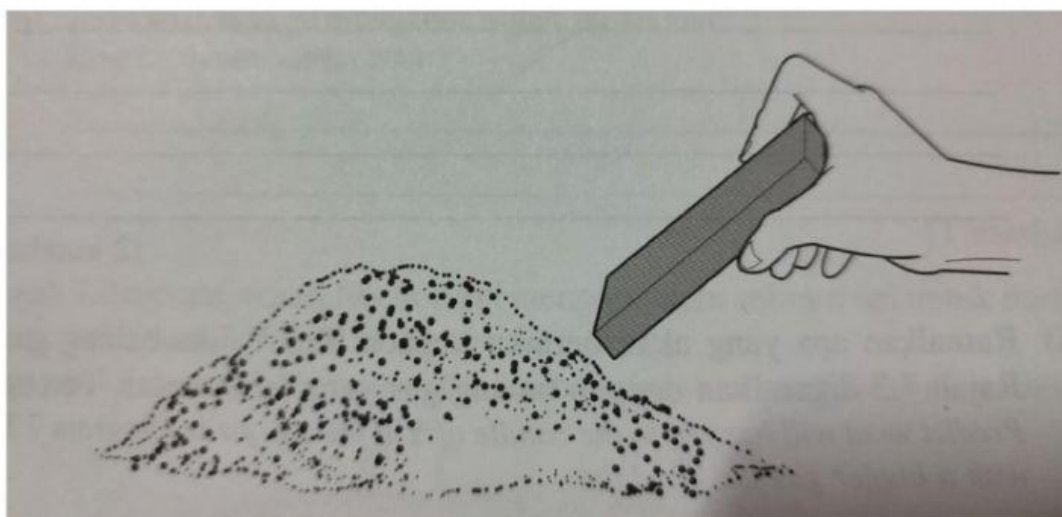


- I. State whether sand and iron powder is an element or a compound.

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(1 mark)

- II. Diagram shows a magnet is placed near to the mixture.



What will happen to the mixtures? Explain why.

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(2 marks)

- III. Name the method used to separate the mixture of sand and iron powder.

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(1 mark)

- IV. Diagram shows a scrapyard where Mr. Kumar works. He found that all materials have mixed. He plans to use a method of separating the metallic materials using a magnet.



Justify whether the method chosen by Mr. Kumar is effective or not.

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(2 marks)

- V. The Science Club that is under the supervision of Puan Rosmawati wants to conduct an activity to separate oil and water solution. They are required to choose a suitable method to carry out this activity.

Table shows two methods.

Method	Flotation method	Filtration method
Material and apparatus	Separating funnel, beaker and retort stand	Filter funnel, filter paper, glass rod, beaker and retort stand

- a) Based on the table, which is the most suitable method to be used to separate oil and water solution?

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(1 mark)

- b) Explain your answer by using the given material and apparatus for the method that you choose.

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(3 marks)