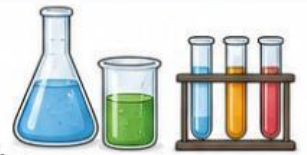




MINI TEST – SET 4

SCIENCE EXPERIMENTS & FAIR TESTING



Choose the correct answer (A, B, C or D) for each question.

1 Paper Towel Absorption

A student wants to find out how the number of layers of paper towel affects how much water is absorbed. Each setup uses the same volume of water.

Setup A
1 layer

Setup B
2 layers

Setup C
3 layers



What is the independent variable?

- A. The volume of water
- B. The number of layers of paper towel
- C. The size of the measuring cylinder
- D. The type of funnel

2 Effect of Water on Germination

Three beans are planted using different amounts of water. All other conditions are kept the same.

Pot A
No water

Pot B
Some water
(50 mL daily)

Pot C
More water
(100 mL daily)



After one week, which measurement will best show the effect of water?

- A. The colour of the soil
- B. The height of the plant
- C. The size of the pot
- D. The type of bean used

3 Magnet Strength Test

A student wants to find out how the distance between a magnet and paper clips affects the number of clips it can pick up.

The same magnet is used in each test.

| Distance between magnet and paper clips | 1 cm | 2 cm | 3 cm |
|---|------|------|------|
| Diagram | | | |

What is the dependent variable?

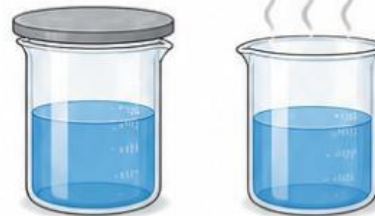
- A. The distance between magnet and paper clips
- B. The number of paper clips picked up
- C. The size of the magnet
- D. The colour of the magnet

4 Cooling Water

Two beakers contain the same amount of hot water (200 mL). One beaker is covered with a lid, the other is left uncovered.

Beaker A
With lid

Beaker B
Without lid



The student measures the temperature of the water every 5 minutes for 20 minutes.

What should be kept the same to make it a fair test?

- A. The colour of the beakers
- B. The volume of water in each beaker
- C. The temperature of the room
- D. The measurement time

5 Ramp Surface Investigation

A student wants to find out how the type of surface affects the speed of a toy car.

The same car is released from the same point on a ramp each time.

Surface 1
Carpet

Surface 2
Wood

Surface 3
Tile



How will the student know which surface the car moves fastest on?

- A. By the colour of the car
- B. By the distance the car travels
- C. By the height of the ramp
- D. By the weight of the car

6 Sugar Amount and Dissolving Time

A student investigates how the amount of sugar affects how long it takes to dissolve in water.

Water temperature and volume are the same in each beaker.

Beaker A
1 teaspoon sugar

Beaker B
2 teaspoons sugar

Beaker C
3 teaspoons sugar



What should the student measure?

- A. The amount of water
- B. The temperature of the water
- C. The time taken for the sugar to dissolve
- D. The size of the beaker

