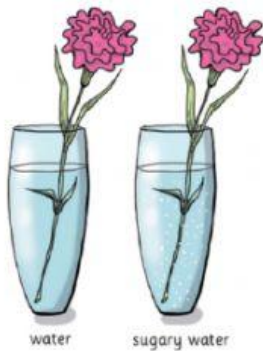


Science Practice 2

- 21 Hassan predicts that a carnation kept in sugar and water will stay fresher for longer than a carnation kept in just water. To test his prediction he fills one vase with water and one vase with sugary water. He puts a carnation in each vase.



What should Hassan do next to test his prediction?

- ☐ A Repeat the experiment using larger vases.
- ☐ B Add roses to the vases.
- ☐ C Observe the carnations every day for a week.
- ☐ D Repeat the experiment using salty water instead of sugary water.

- 22 A scientist conducts an experiment for the first time. Her results are not what she predicted.

What must the scientist do to see if her results are correct?

- ☐ A write a report
- ☐ B repeat the experiment
- ☐ C buy new equipment
- ☐ D draw a graph

- 23 This seed has hooks on it.

When an animal walks past the plant that the seed grows on, the hooks attach to the animal's fur.

How does the animal help the plant?

- ☐ A The seed is moved to a new place to grow.
- ☐ B The plant grows in the animal's fur.
- ☐ C The seed is eaten by the animal.
- ☐ D The plant is pollinated by the animal.



- 24 Which type of graph would be **best** for recording plant growth over one week?

- ☐ A pie chart
- ☐ B line graph
- ☐ C pictogram
- ☐ D bar chart

- 25 A prickly pear cactus has thick stems that hold water.

How does a thick stem help the prickly pear cactus?



- ☐ A It protects the cactus in a flood.
- ☐ B It helps the cactus survive when there is little sunlight.
- ☐ C It protects the cactus from being eaten by insects.
- ☐ D It helps the cactus survive in a dry environment.

- 26 Zara wants to know which type of soil a plant grows best in. What should she measure to answer the question?

- ☐ A the height of the plants
- ☐ B the mass of the soil
- ☐ C the volume of water given to the plant
- ☐ D the temperature of the room the plants grow in

- 27 Jack is studying an ash tree. He uses the table below to find out what type of ash tree it is.

Tree name	Leaf length (cm)	Habitat
Common Ash	7.6 - 12.7	woods, river banks
White Ash	20.3 - 30.5	uplands in rich soil
Black Ash	30.58 - 40.6	stream banks, swamp borders

What equipment would help Jack to work out what type of tree it is?

- ☐ A. thermometer
- ☐ B. measuring cylinder
- ☐ C. magnifying glass
- ☐ D. ruler

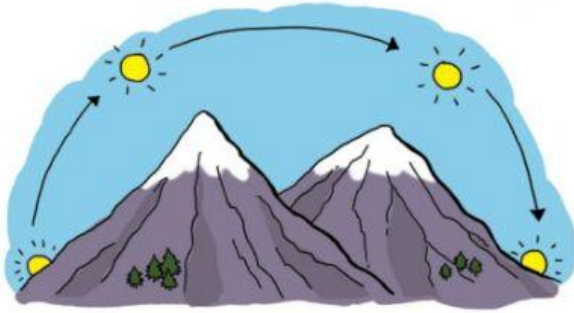
- 28 Which change will make the bulb in this circuit brighter?



- ☐ A putting a switch in the circuit
- ☐ B using a higher voltage cell
- ☐ C using a thinner wire
- ☐ D using more wires

29 Look at the cycle in the diagram below.

How often does this cycle occur?



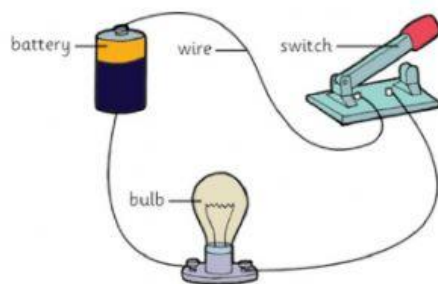
A. hourly

B. daily

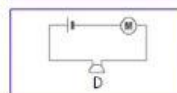
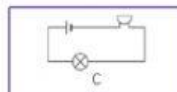
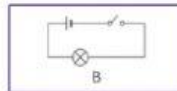
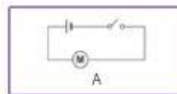
C. weekly

D. monthly

30 Lily builds this circuit.



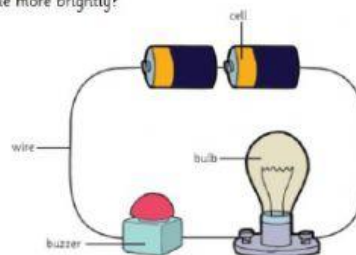
Which diagram shows the circuit?



31 Emma makes a circuit. The light bulb is **not** bright.

What could Emma do to make the light bulb shine more brightly?

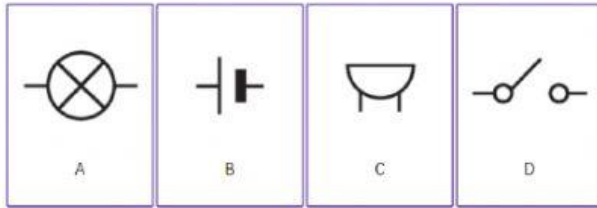
- A add another buzzer to the circuit
- B add a switch to the circuit
- C remove the buzzer from the circuit
- D remove a cell from the circuit



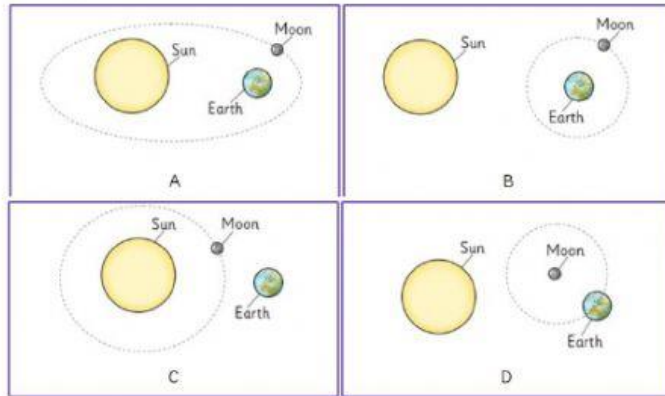
32 Why does the Earth have day and night?

- A The Earth rotates on its axis.
- B The Earth moves away from the Sun each night.
- C The Moon blocks light from the Sun at night.
- D The Sun only shines in the daytime.

33 Which symbol below represents a buzzer?



34 Which diagram shows a real orbit?



35 Approximately how many times does the Moon orbit the Earth in a year?

- A 1
- B 7
- C 13
- D 28

36 The first step in the water cycle is evaporation.

What gives water the energy to evaporate?

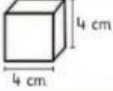
- A the Sun
- B wind
- C clouds
- D waves

- 37 The temperature of some water changes from 5°C to -1°C .

The water...

- ☐ A boils.
- ☐ B melts.
- ☐ C freezes.
- ☐ D condenses.

- 38 Jack and Emma test how long it takes for different sized ice cubes to melt.

Pupil	Size of ice cube	Freezer temperature ($^{\circ}\text{C}$)	Room temperature ($^{\circ}\text{C}$)
Jack	 4 cm	-16	20
Emma	 2 cm	-16	27

Why is the investigation **not** a fair test?

- ☐ A. The freezer is too cold.
- ☐ B. They are using different sized pieces of ice.
- ☐ C. The rooms are different temperatures.
- ☐ D. They are using more than one piece of ice.

- 39 Decide if each statement about the properties of water is **true** or **false**.

	True	False
Liquid water holds its shape.	☐	☐
Water changes to a gas as it boils.	☐	☐
Ice becomes a liquid when it freezes.	☐	☐
Solid ice changes shape when it is put in a different container.	☐	☐

- 40 Which of these is an example of water changing from water vapour to liquid?

- ☐ A Moisture forming on a mirror when you breathe on it.
- ☐ B Sweat forming on your body when you exercise.
- ☐ C Ice cubes melting when you put them in a warm liquid.
- ☐ D A pond drying up during the summer.