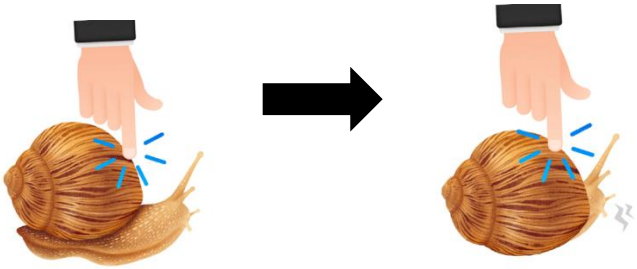
1. Which of the following plants are correctly matched to their reproduction method?

	Through spores	Through roots	Through Underground stems	Through seeds
1.	Moss	Potato	Onion	Guava
2.	Dragon scale fern	Sweet potato	Turnip	Tomato
3.	Bird's nest fern	Tapioca	Ginger	Kale
4.	Mosquito fern	Garlic	Water chestnut	Apple

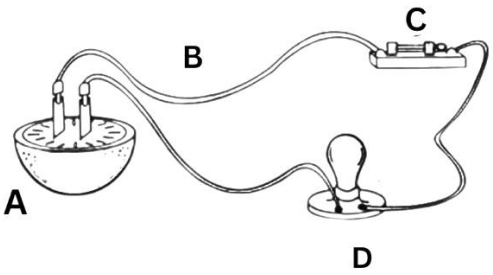
2. A snail retreats into its shell when it feels touched.



This shows that living things.

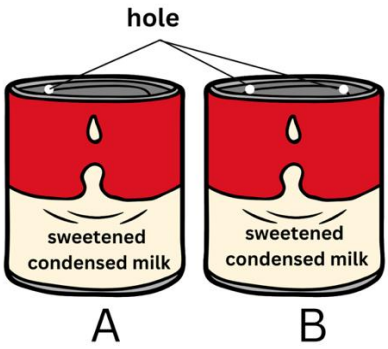
1. can grow
2. can reproduce
3. can respond to changes
4. need air, food and water to survive

3. Which part of the circuit is the source of electricity?



1. A
2. B
3. C
4. D

4. In the diagram below, two cans of sweetened condensed milk are displayed. Can A had a single hole while can B had two holes made.



Honey would flow out more easily from _____.

1. can A as the air inside the can can push out the sweetened condensed milk.
2. can B the presence of two holes in the condensed milk, a greater volume of it escaped.
3. can A as air enters through the hole, it pushes the sweetened condensed milk out.
4. can B as air could enter the can through one hole and push the condensed milk out of the other hole.

5. Examples of three substances in the same state are given by four students.

Amy : Air, pond water and oxygen
Bill : Ice, sand and wood
Cindy : Ruler, card and paper
David : Running water, mercury and milk powder

Which student stated incorrectly?

1. Amy only
2. Bill and Cindy only
3. Amy and David only
4. Amy, Cindy and David only

6. Which of the following statements is true about pure water vapour?

   A. Melting point is low.

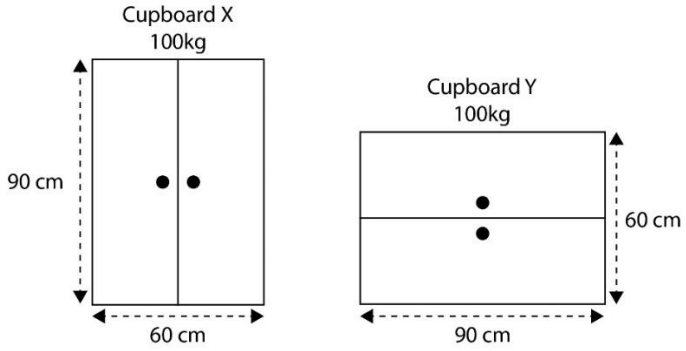
   B. It is easy to compress.

   C. Good electrical conductor.

   D. The volume is fixed, but the shape is not fixed.

1. B only
2. C only
3. A and B only
4. C and D only

7. Nick tries to push two identical cupboards,as shown below.



Which of the following statements about the pushing of cupboards is correct?
(Assume that the floor is free of friction.)

1. Starting to move cupboard X is easier.
2. Moving the two cupboards is as simple as starting.
3. Cupboard Y, once in motion, is more difficult to stop.
4. Cupboard X, once in motion, is more difficult to stop.

8. Ying accidentally stepped on her ping pong ball.



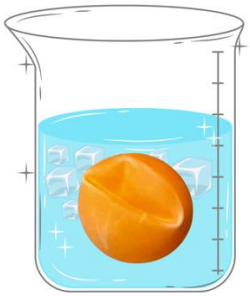
Which action should she take to make the dented ping pong ball fully round again in the fastest possible time?

1.



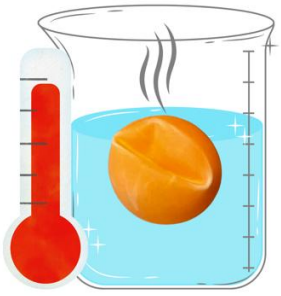
Hammer it

2.



Put it in a beaker of ice

3.



Put it in a beaker of hot water

4.



Put it directly under the sun

9. Which actions can be taken to prevent water pollution?

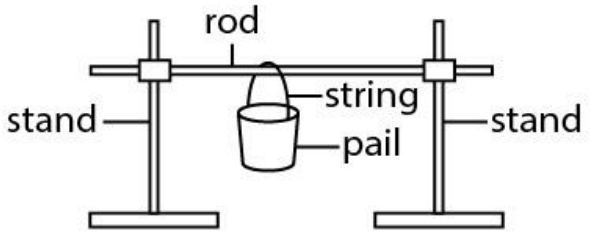
A. Throwing rubbish into water sources is not recommended.

B. Plants around the water sources should be removed.

C. Factories should not be constructed close to water sources.

1. A and B
2. A and C
3. B and C
4. A, B and C

10. In the experiment as shown in the picture below. At each end, four rods made of various materials are mounted on stands, and a pail is hung in the middle of the rods. The thickness of each bar is identical. Pour 10 mm of water into the pail until the rods break.



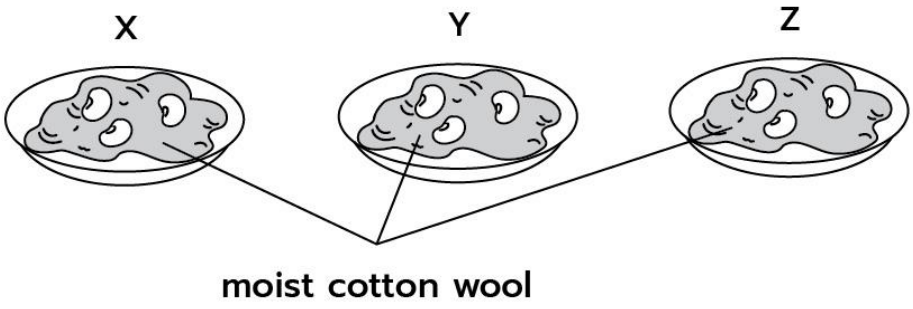
What is the aim of the experiment above?

1. To find out which material is the heaviest
2. To find out which material is the strongest
3. To find out which material is the most brittle
4. To find out which material is the most flexible

11. According to evidence, a large meteorite collided with Earth 65 million years ago, resulting in a layer of dust blocking sunlight and cooling the planet. As a consequence, it is estimated that 70% of all plant and animal species, including dinosaurs, have been extinct. The most probable reason for the death of these organisms is that

1. Sunlight is necessary for consumers to make sugar to survive.
2. The amount of energy that can be found in the living world decreases.
3. Energy is only produced by plants.
4. Plants are eaten by all animals to obtain the energy.

12. Irene set up an experiment as shown below. Her goal was to discover the requirements needed for seeds to germinate well.



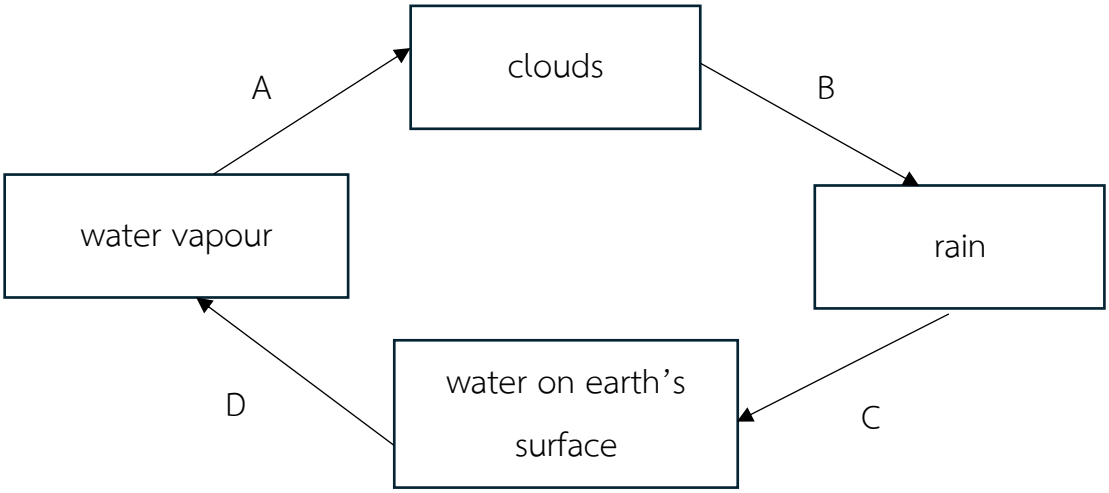
The set-up X was placed in a freezer, the set-up Y was placed in a cupboard, and the set-up Z was placed in a container that didn't have any air. What is the optimal environment for the seeds to germinate? Explain your reason.

1. Set – up X because the temperature is suitable for germination.
2. Set – up Y because the seeds do not need light to stimulate germination.
3. Set – up Z because the seeds can breathe by themselves.
4. Set – up Z because the seeds do not need air to breathe.

13. On December 21st every year, which location on the earth's surface experiences summer?

1. Australia
2. Thailand
3. China
4. Indonesia

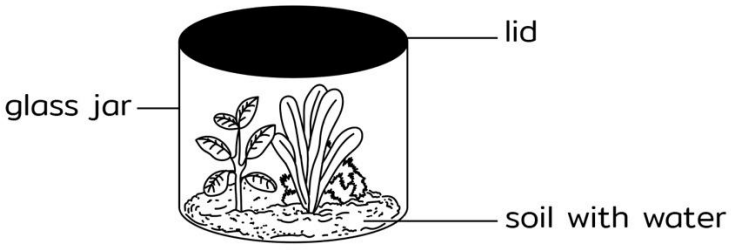
14. Study the water cycle below.



Which of the following rows has the arrows correctly matched?

	Heat gain	Heat loss
1.	A	C
2.	B	D
3.	C	B
4.	D	A

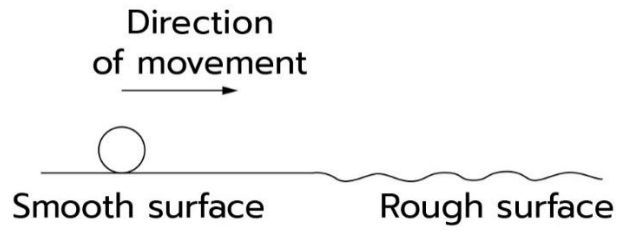
15. Iris put soil and plants in a large glass container. After adding some water to the glass jar, she sealed it with a lid. Iris observed that the plants in the glass jar



In order to stay alive, the plants in the glass jar must make their own food. Where did the carbon dioxide needed by the plants come from?

1. The glass jar.
2. The air that the plants breathe out.
3. The water evaporated from the plants.
4. The sunlight entering the glass jar.

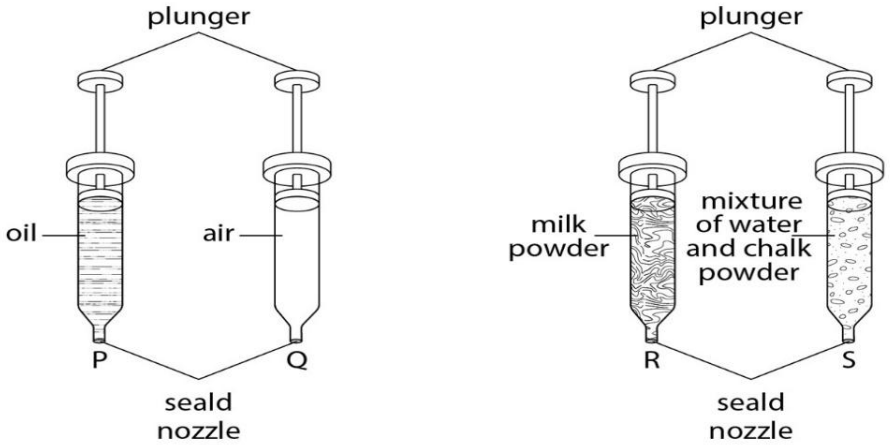
16. The diagram below shows a ball moving from a smooth surface to a rough surface.



Which of the following statements correctly describes its movement?

1. The size of the ball that is moving changes due to friction.
2. The shape of the ball moving changes as a result of the frictional force.
3. The speed of the ball being moved is altered by the frictional force.
4. The direction of the moving ball is changed due to the frictional force.

17. Cheryl filled four syringes with oil, air, milk powder an a mixture of water and chalk powder respectively. Then, she sealed the nozzle of each syringe.



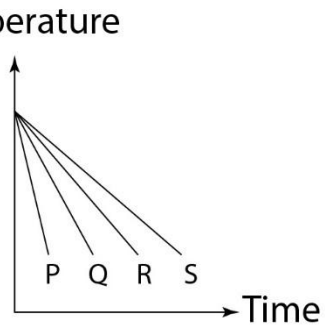
What is the outcome of pushing the plungers inwards?

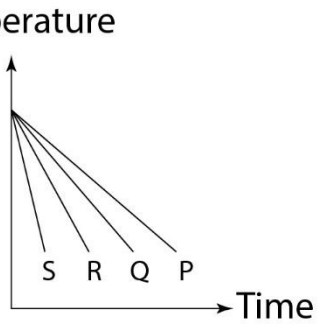
1. All plungers will move downwards.
2. None of the plungers would move downwards.
3. Only the plunger of the syringe Q move downward.
4. Only the plungers of syringe R and syringe S can move.

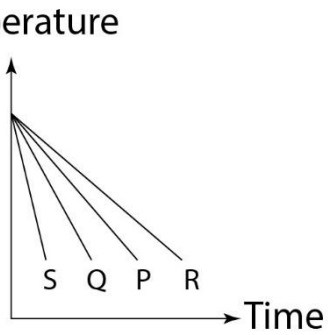
18. In an experiment, four flasks of the same size but made of different materials were filled with the same amount of air with a temperature of 60°C. The air in each flask was allowed to cool down to a room temperature. The table below displays the duration in which the air in the flask reaches room temperature.

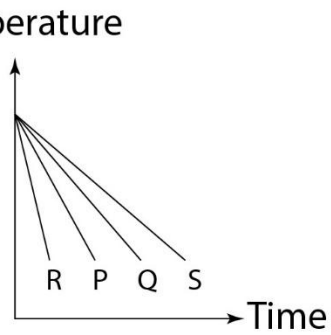
Flask	The duration required for the air temperature in the bottle to reach the room temperature (mins)
P	10
Q	20
R	5
S	30

Which the following graph correctly displays the results of the experiment?

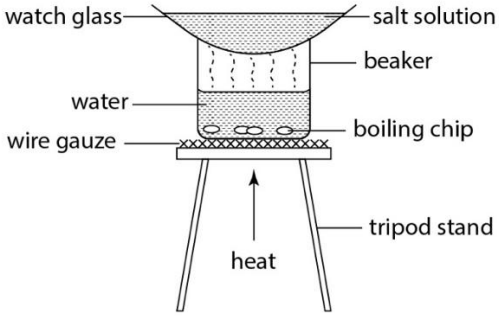
1. 

2. 

3. 

4. 

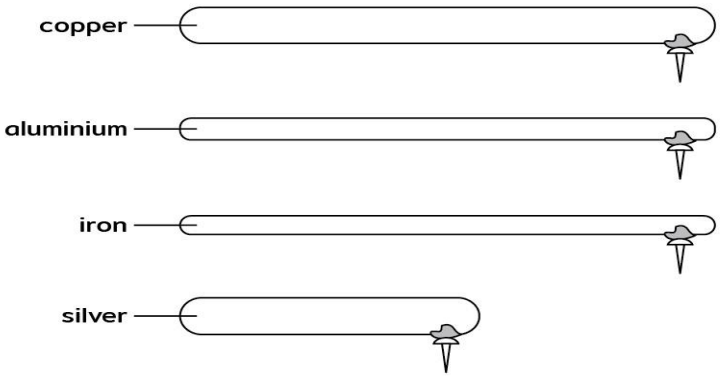
19. Separating salt from salt solution can be done using the method outlined below.



Which of the following statements states the reason for it?

1. Crystallization is a process that sugar can perform, but salt cannot.
2. Sugar dissolves when heated while salt does not dissolve when heated.
3. As sugar is more soluble than salt when heated, it results in a saturated solution.
4. Sugar breaks down when heated strongly whereas salt does not break down when heated strongly.

20. Sam has four rods made of copper, aluminium, iron and silver. Different types of metals include copper, aluminium, iron, and silver. Sam uses a little of wax to attach a small iron nail to the ends of each of the rods. In the diagrams below, the metal rods are displayed with iron nails.



Which idea can Sam test using the metal rods with iron nails?

1. Iron is a better conductor of heat than copper
2. Copper is a better conductor of heat than silver.
3. Aluminium is a better conductor of heat than iron.
4. Silver is a better conductor of heat than aluminium.

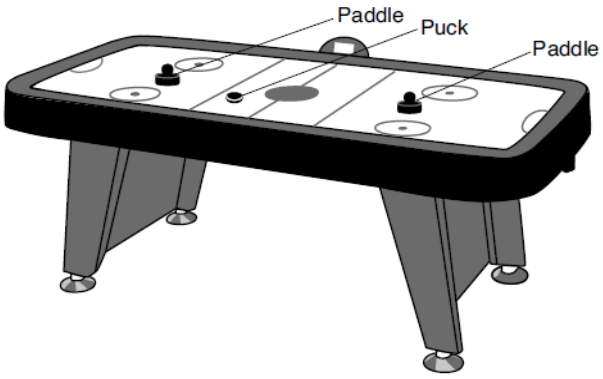
21. Bill investigated to see if temperature would affect how long seeds need to soak in water before germinating. The table below displays information related to his investigation.

Temperature(^{O}C)	20	25	30	35
Volume of water (ml)	50	50	50	50
Number of seeds soaked	10	15	20	25
Soaking time in water (hour)	10	8	6	4

How should Bill improve his investigation better?

1. He should use only type of seeds and no water to prepare controls.
2. He should use the same number of seeds for each test.
3. He should use water at the same temperature for each of the tests.
4. He should use more water when the temperature of the water is higher.

22. The diagram below shows an air hockey table. A round flat puck is hit by opposing players across the table, using hard plastic paddles.

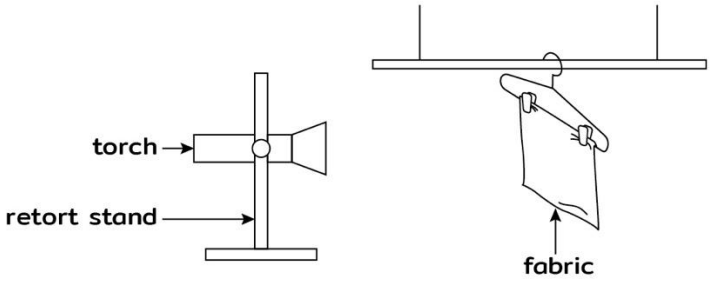


Two players played a game of air hockey while the power button was turned off. Each player used a hard, plastic paddle to hit a puck across the table to a scoring area on the other player's side of the table. With the power being turned off, the puck moved slowly. When the players turned the power on, air was blown upwards through tiny holes on the surface of the tabletop, allowing the puck to glide on the air. This caused the puck to move very rapidly when being hit.

What action the players take to make the puck glide more easily without turning the power on?

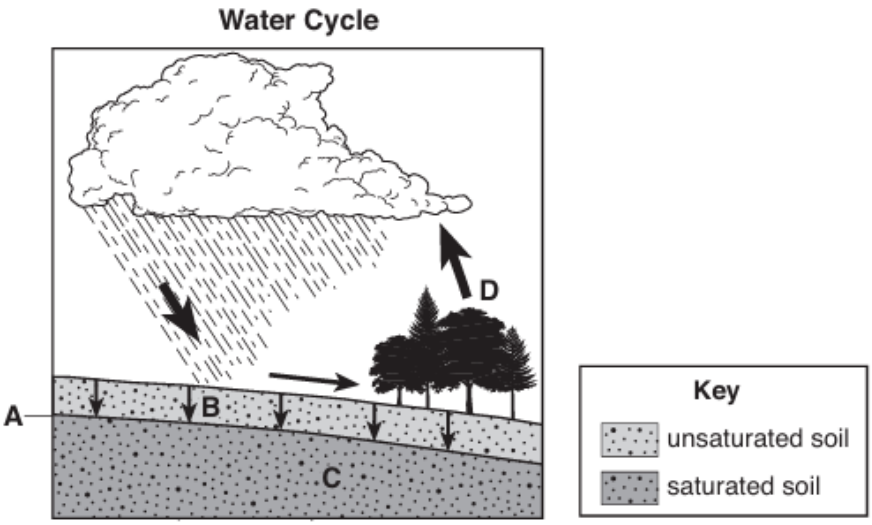
1. Use a heavier puck
2. Wax the bottom of the puck
3. Use a larger paddle
4. Increase the size of the puck

23. Sara turned on the flashlight to shine a light on the cloth in the darkened room. She observed that a light was visible on the other side of the cloth. Which properties of the fabric does Sara want to test?



1. Strength of the fabric
2. Flexibility of the fabric
3. Waterproofness of the fabric
4. Transparency of the fabric to light

24. The diagram below represents a portion of the water cycle. Letters A,B,C and D represent processes of featuers related to the water cycle. Arrows are used to symbolize water's movement



Based on the table, which letters are accurate for the processes or properties related to the water cycle?

	Process or Feature			
	Letter A	**Letter B**	**Letter C**	**Letter D**
1.	Groundwater	Precipitation	Water table	Evaporation
2.	Groundwater	Infiltration	Water table	Transpiration
3.	Water table	Runoff	Groundwater	Precipitation
4.	Water table	Infiltration	Groundwater	Transpiration

25. May plucked four leaves from a plant. She dipped the leaves in hot boiling water and observed bubbles coming out from the upper and lower surfaces of the leaves. May's observations are shown in the table below.

Leaf surfaces	**Number of bubbles appearing on the leaf surfaces**			
	Leaf 1	Leaf 2	Leaf 3	Leaf 4
Lower	More	More	More	More
Upper	Less	Less	Less	Less

From the observations, May concluded that _____.

1. some leaves have more stomata than others
2. different leaves have different number of stomata
3. the stomata of smaller leaves are less than those of larger leaves
4. more stomata are found on the lower surfaces of the leaves

26. Obsidian's glassy texture indicates that it formed_____.



Obsidian

1. slowly, deep below Earth's surface
2. quickly, on Earth's surface
3. quickly, deep below Earth's surface
4. slowly, on Earth's surface

27. Mary observes some characteristics of Mr.Chan, his wife Mrs.Chan, and their four children, Andy, Ben, Cindy and David.

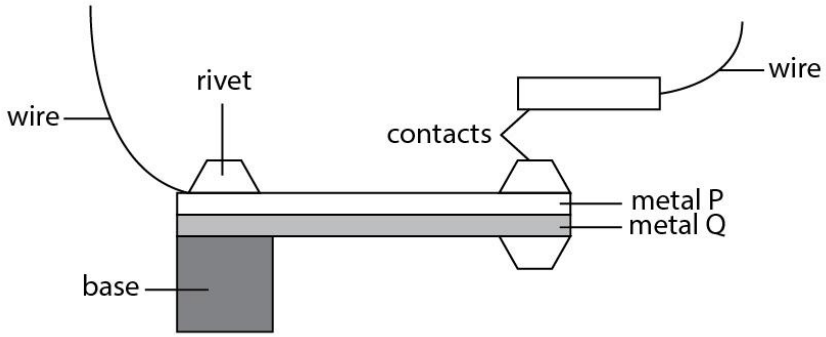
Name	Characteristics					
	Freed earlobe	Attached earlobe	Dimples	No dimples	Curly hair	Straight hair
Mr.Chan		✓		✓	✓	
Mrs.Chan	✓		✓			✓
Andy		✓	✓		✓	
Ben		✓		✓		✓
Cindy		✓		✓	✓	
David	✓		✓		✓	

The diagram displays the specific traits of the Chan family. Mr. Chan and Mrs. Chan's child is likely the one shown below.



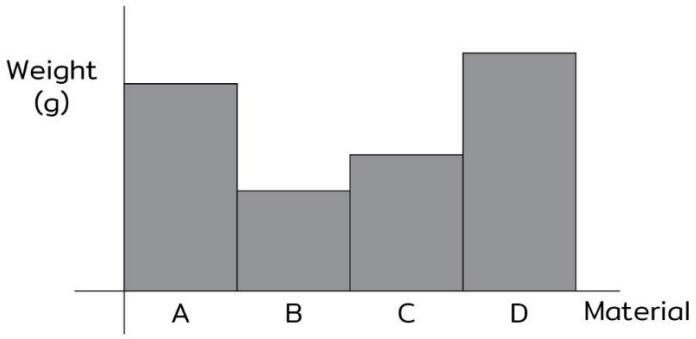
1. Andy
2. Ben
3. Cindy
4. David

28. The diagram shows a bimetallic strip. When electricity is passed through the wires, the contacts should be closed. However, the strip bends in the wrong direction and the contacts remain open. Which statement is correct about the characteristics of the metals P and Q ?



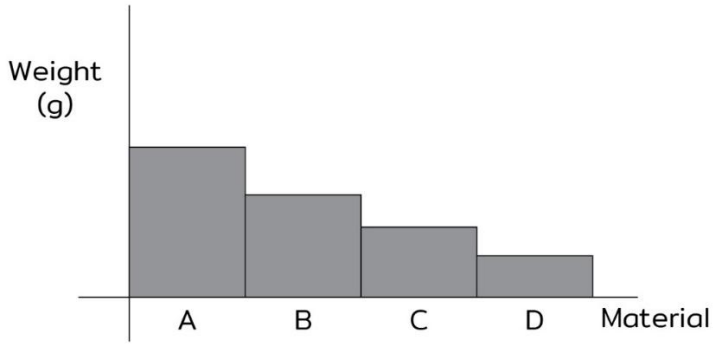
1. Metals P and Q do not expand when heated.
2. Metals P and Q expand the same when heated.
3. Metal P expands more than metal Q when heated.
4. Metal P contracts more than metal Q when heated.

29. **Graph 1** shows the weight of four materials found in garbage bags.



Graph 1

Graph 2 shows the weight of four materials in the same trash bag six months later.

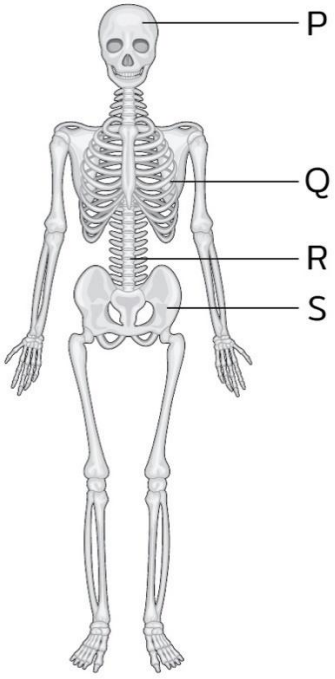


Graph 2

What materials are not biodegradable?

1. A
2. B
3. C
4. D

30. The diagram shows a human skeletal system.



Which statement about the system is true?

A Part Q protects the heart and lungs.

B Part P protects the organ that pumps blood.

C Part R protects all the organs in the digestive system.

D Parts P, Q, R and S are made up of bones of different shapes and sizes.

1. A only
2. A and D only
3. B and C only
4. A, B and D only

31. Some animals are grouped as shown below.

Herbivores	Carnivores	Omnivores
Cow	Duck	Chicken
Dragonfly	Lion	Pig

Which of the animals has/have been incorrectly placed?

1. Dragonfly only
2. Duck and pig only
3. Dragonfly and duck only
4. Chicken and dragonfly only

32. Most sediment compacted and later formed shale bedrock is _____.

1. clay
2. silt
3. sand
4. Pebbles

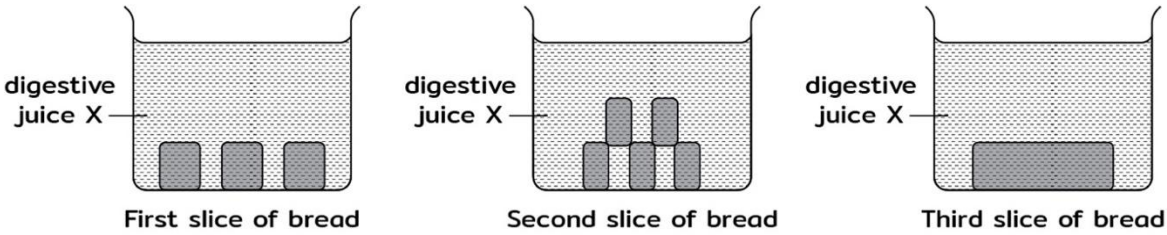
33. Three identical plants were chosen and put into three identical containers of soil. The pots were labelled A, B and C. The table below shows the amount of water and fertilizer X that the plants were given every day. At the conclusion of the experiment, the plants were compared in terms of the number of flowers they produced.

	Pot A	Pot B	Pot B
Water (ml)	100	100	100
Fertilizers X (ml)	0.5	1.0	1.5

What question is this experiment?

1. What is the effect of fertilizers X on the number of flowers that the plants produce?
2. What is the impact of water on the amount of flowers plants produce?
3. What is the effect of the amount of fertilizer X on the number of flowers produced by the plants?
4. What is the effect of the amount of fertilizer X and water on the number of flowers produced by the plants?

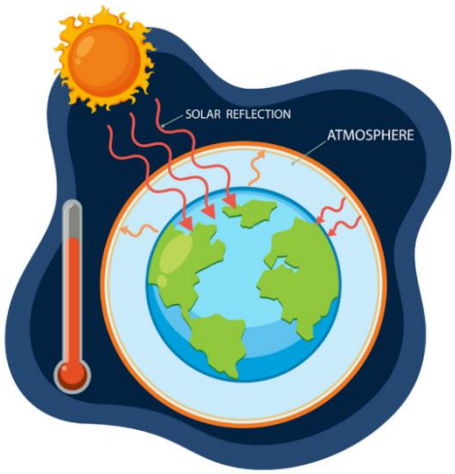
34. Lynn had three bread slices that were identical. She divided the initial slice into three pieces and the second slice into five pieces. She left the third slice as it was originally. Lynn placed the bread into the same amount of digestive juice X to determine which slice of bread would be digested first. The diagrams below show what Lynn had done.



Lynn conducted an experiment to demonstrate that food is digested faster when it _____.

1. is mixed with more digestive juice
2. is chewed before swallowing
3. remains in our stomach for a prolonged period
4. is mixed with digestive juice before being swallowed

35. Global warming can be caused by greenhouse gases trapped in the atmosphere.

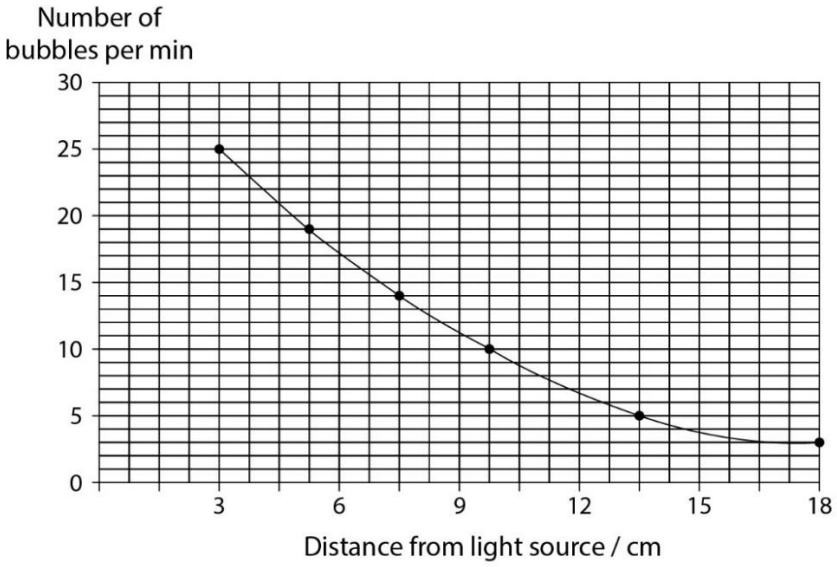


Identify the effects greenhouse gases have on global warming.

A. Rising sea levels
B. Unpredictable weather changes
C. Increase in temperature on Earth

1. B only
2. C only
3. A and C only
4. A, B and C

36. The graph below illustrates the relationship between the distance from a light source and the quantity of bubbles produced by an aquatic plant.

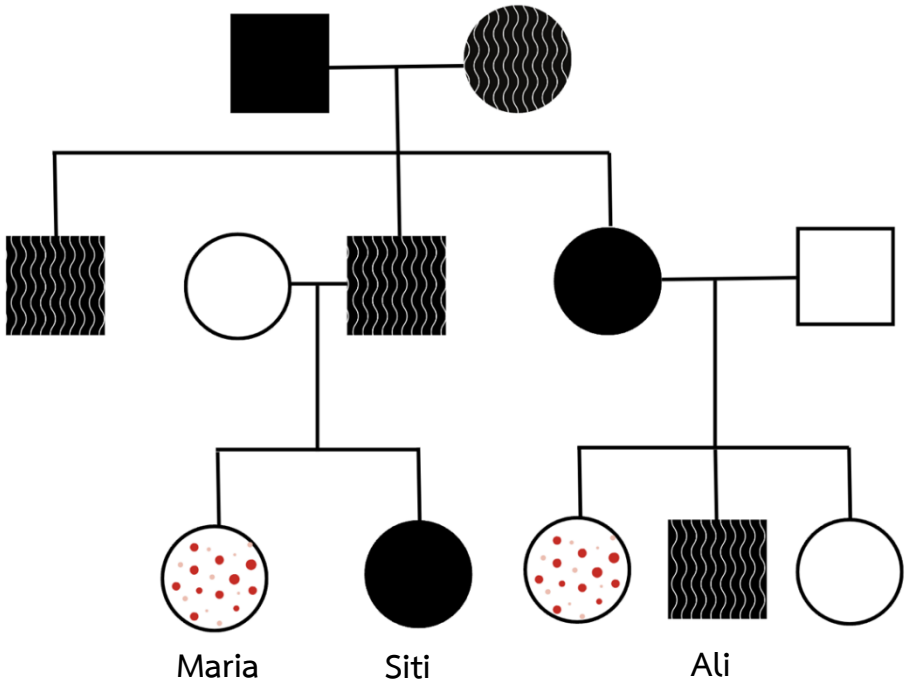


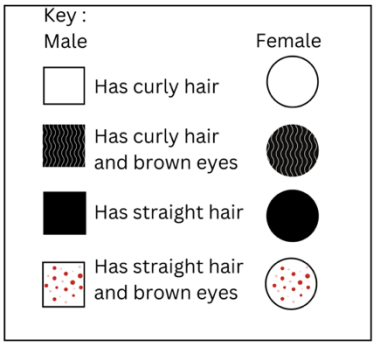
From the graph, we can infer that _____.

A. more bubbles are produced at a distance of 9 cm than 15 cm
B. fewer bubbles are produced at a distance of 18 cm than 15 cm
C. fewer bubbles are produced at a distance of 12 cm than18 cm

1. A only
2. A and B only
3. A and C only
4. A ,B and C

37. Study the family tree below.





Based on the family tree, which of the following statements is/are correct?

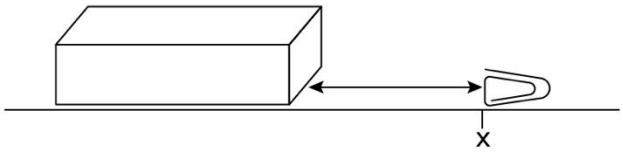
A. Maria inherited her straight hair from her grandfather only.

B. Siti inherited a trait from her grandmother.

C. Ali inherited his curly hair and brown eyes from his uncles.

1. A only
2. A and B only
3. A and C only
4. A, B and C

38. Tim wanted to compare the strengths of four magnets. This is what he did:



1. A steel paper clip was placed at point X on the table.
2. A magnet was slowly pushed towards the paper clip until it was attracted.
3. The distance that the magnet was capable attract the paper clip was measured.

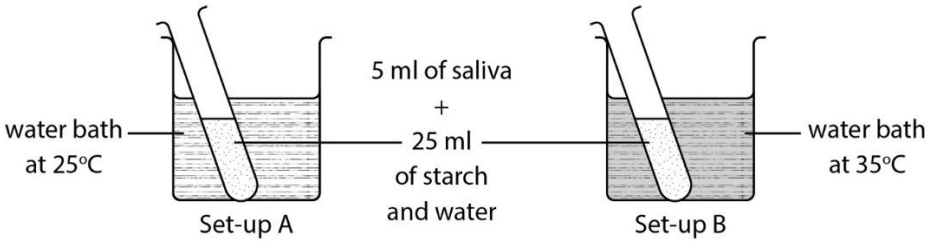
The table below shows the results of the experiment.

Distance from the magnet to the paper clip (mm)	Magnet A	Magnet B	Magnet C	Magnet D
4	Attracted	Attracted	Attracted	Attracted
6	Not attracted	Attracted	Attracted	Not attracted
8	Not attracted	Attracted	Not attracted	Not attracted
10	Not attracted	Not attracted	Not attracted	Not attracted

What can be concluded from the results in the table?

1. Magnet A is the weakest.
2. Magnet B is the strongest.
3. Magnet C is as strong as magnet B.
4. Magnet D is the weakest.

39. There were two set-ups, A and B. Each set-up had 5 ml of saliva and 25 ml of a mixture of starch and water. Set-up A was placed in a water bath at 25 ^{O}C, while set-up B was placed in a water bath at 35 ^{O}C.



One drop of liquid from each test tube was tested for starch with iodine solution every minute. Iodine solution turns dark blue in the presence of starch but remains brown in the absence of starch.

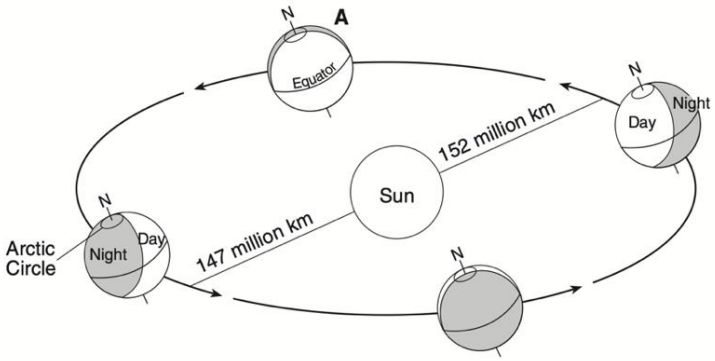
The table below records the results for the two set-ups.

Time (min)	Colour of iodine test	
	Set-up A	**Set-up B**
0	Dark blue	Dark blue
1	Dark blue	Dark blue
2	Dark blue	Dark blue
3	Dark blue	Brown
4	Dark blue	Brown
5	Brown	Brown

Which of the following statements about this experiment is not true?

1. The saliva converts starch into another substance.
2. Both test tubes did not have starch in them at the end of the experiment.
3. The iodine stopped turning dark blue when there was no more starch in each test tube.
4. The saliva has a shorter time to change the starch into another substance at 25 ^{O}C. than at 35 ^{O}C.

40. The diagram below is based on your knowledge of Earth science. One of the labels on the diagram is A, which shows the Earth's position in its orbit on the first day of each of the four seasons. The North Pole is labeled N. Kilometers are used to label the closest distance to the Sun and the farthest distance from the Sun.



(Not drawn to scale)

What is the probable outcome of increasing the tilt of the Earth's axis from 23.5° to 25° for Thailand's summer and winter temperatures?

1. Both the summers and winters would become cooler.
2. Both the summers and winters would become warmer.
3. The summers would cool down and the winters would heat up.
4. The summers would heat up and the winters would cool down.

คำตอบวิชาวิทยาศาสตร์ ชั้นประถมศึกษาปีที่ 6

ข้อ	คำตอบ	ข้อ	คำตอบ
1	3	21	2
2	3	22	2
3	1	23	4
4	4	24	4
5	3	25	4
6	1	26	2
7	2	27	1
8	3	28	3
9	2	29	2
10	2	30	2
11	2	31	3
12	2	32	1
13	1	33	3
14	4	34	2
15	2	35	4
16	3	36	2
17	3	37	1
18	4	38	2
19	4	39	4
20	Free*	40	4

* หมายเหตุ : ข้อ 20 รูปในโจทย์ขนาดไม่ถูกต้องและโจทย์ไม่สมบูรณ์