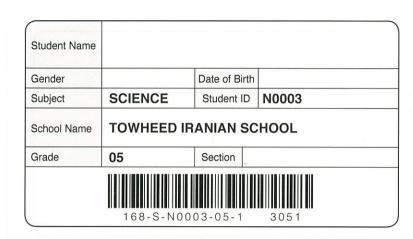






2016



Science

TEST INSTRUCTIONS

FILL IN YOUR DETAILS

Turn to your ANSWER SHEET and fill in your name, school, grade, section, today's date, your date of birth and gender.

ANSWERING QUESTIONS

Go to the SCIENCE ANSWER SHEET.

This test has 40 QUESTIONS. Each question has four possible options.

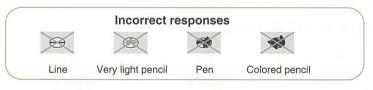
Choose the BEST answer from the four options, A, B, C or D.

FILL in ONE circle on your answer sheet with a pencil.

If you make a mistake, erase the pencil mark and fill in a different circle.

You must colour the entire circle as shown below:





Marks are NOT deducted for incorrect answers.

ALL ANSWERS SHOULD BE MARKED ON YOUR ANSWER SHEET ONLY.

EQUIPMENT ALLOWED IN THIS TEST

You may use a 2B or B pencil for this test. You may NOT use a dictionary for this test.

TIME ALLOWED FOR TEST

The time allowed to complete this test is 60 minutes



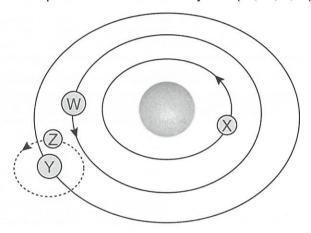


Type of bird foot How the foot looks **Used for** walking on mud holding onto prey 3 swimming holding onto branches Hawks hunt small animals for food. Which type of feet do hawks have? Α C D Type 1 Type 2 Type 3 Type 4

- What is true for a bird that has Type 3 feet?
 - A It cannot fly.
 - **B** It spends time in water.
 - C It lives in the mountains.
 - **D** It does not lay eggs in a nest.

- 38 Which of these is a non-contact force?
 - A a man pushing a door
 - B an apple falling from a tree
 - **C** water turning a water wheel
 - **D** a train engine pulling train coaches

The picture shows four objects (W, X, Y, Z) moving around the Sun.



- 39 Which object is a moon?
 - A object W
 - B object X
 - C object Y
 - D object Z
- 40 Which statement is true?
 - A Z is the hottest of the four objects.
 - **B** X is the closest object to the Sun.
 - C Object W has the longest orbit.
 - **D** Object Y has the shortest orbit.

Two bean seeds are placed in two glass dishes.

One dish contains moist soil. The other dish contains moist cotton.



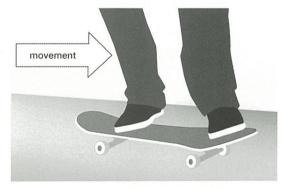


Seeds in moist soil



- Which question can be answered from this experiment?
 - Do seeds need soil to germinate?
 - Can seeds germinate in a glass dish? B
 - Do seeds need sunlight to germinate? C
 - How many seeds can germinate at one time?

A boy is riding a skateboard.



- What force acts between the wheels and the ground?
- C

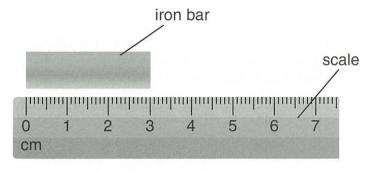
- electric
- friction
- air pressure
- magnetism

D

- Four children use the same skateboard.
 - Which child can move the skateboard using the smallest pushing force?

- a 20-kg child
- a 30-kg child
- a 40-kg child
- a 50-kg child

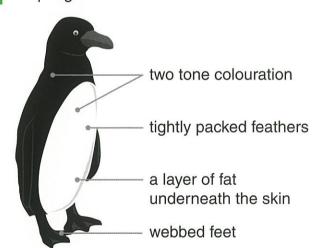
This iron bar is heated until it is red hot.



before heating

What is the length of the iron bar after heating?

- 2.2 cm
- 2.5 cm
- 3.0 cm
- 3.2 cm
- All penguins have the features shown in the diagram.



Which features help to keep the penguin warm as it swims?

- feathers and fat only
- colouration and feathers only
- colouration, feathers and fat only
- colouration and webbed feet only

Grade 5 Science 2016

A girl dropped four different balls onto a surface from the same height.

She did this three times and measured how high the balls bounced each time.

	Bounce height of the balls (cm)			
	Trial 1	Trial 2	Trial 3	
Tennis ball	39	38	50	
Golf ball	41	43	43	
Cricket ball	39	38	37	
Basketball	33	31	32	

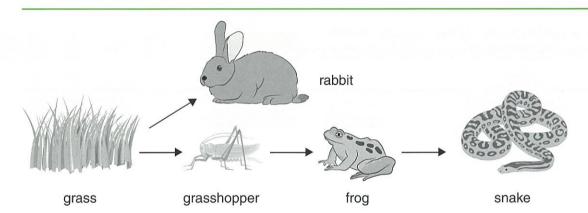
- 5 Which trial result was most likely to be an error?
 - A Tennis ball, Trial 3
 - **B** Golf ball, Trial 2
 - C Cricket ball, Trial 1
 - D Basketball, Trial 2
- The girl drops each ball for a fourth time.

 Which ball is likely to bounce the highest?
 - A Tennis ball
 - B Golf ball
 - C Cricket ball
 - D Basketball
- Balls roll a shorter distance on grass than on a tiled floor.
 What causes the balls to roll less on grass?
 - **A** gravity
 - **B** friction
 - C magnetism
 - **D** electricity

32 Why do butterflies land on flowers?



- A to lay eggs
- B to collect nectar
- C to give food to the plant
- **D** to help the flowers open up



Key: grass → grasshopper; means the grasshopper eats grass

33 Look at the food chain above.

What does the snake eat?

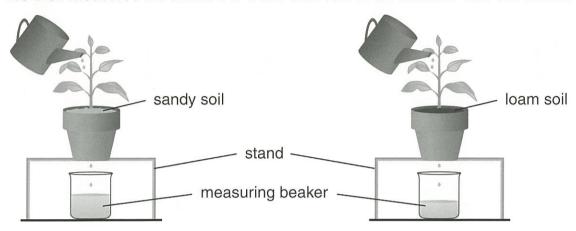
- A grass
- **B** frogs
- **C** rabbits
- D grasshoppers
- Which animals in the food chain eat the same food?
 - A frog and rabbit
 - B frog and snake
 - **C** snake and rabbit
 - **D** grasshopper and rabbit

A student has two plants.

Each pot contains a different soil.

The student adds the same amount of water to each pot.

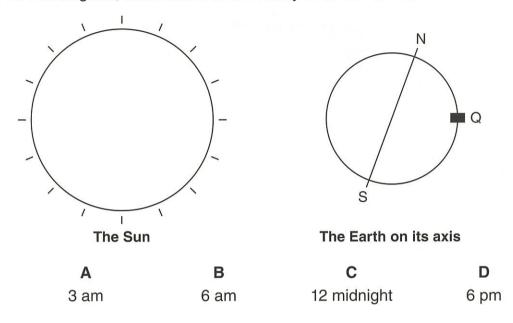
He then measures the amount of water collected in the beakers after two hours.



- 30 What is the student trying to find?
 - A which soil the plant grows best in
 - **B** how much water each plant needs
 - **C** how much water is absorbed by roots
 - **D** which soil holds the most water
- What must be kept the same for this test to be fair?
 Choose the correct row.

Amount of soil	Type of plant	Size of plant
no	no	yes
yes	yes	yes
yes	no	yes
no	yes	yes

In this diagram, what time is it most likely to be at Point Q?



- 9 What causes day and night?
 - A the movement of the Earth around the Sun
 - **B** the movement of the Earth around its axis
 - c the movement of the Sun around the Earth
 - **D** the movement of the Earth around the planets
- How would germinating after a flood help a seedling to survive?
 - A All other plants are drowned.
 - **B** The water cools the ground.
 - C The water washes away pollution.
 - **D** The ground is damp for a long time.
- The seeds of one type of plant will germinate after being heated in an oven.

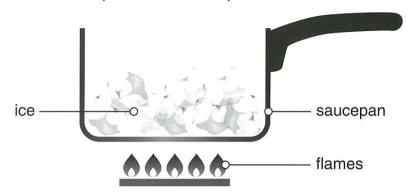
 Which natural event will help this plant germinate?

Α	В	С	D
flooding	fire	cold	darkness

B

D

Some ice is placed in a saucepan and heated.

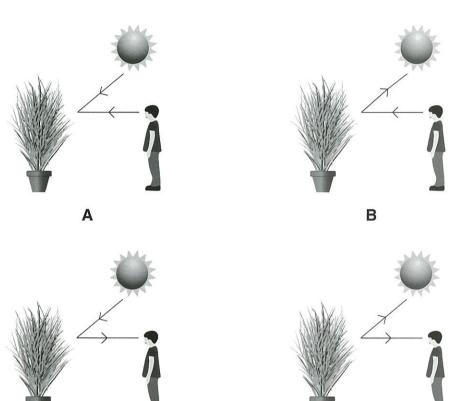


- 12 What happens first to the ice?
 - A It melts.
 - B It boils.
 - C It cools down.
 - D It changes to steam.
- You want to know if small amounts of water heat faster than large amounts of water.

 To test this, you need to keep changing the
 - A shape of the saucepan.
 - B colour of the saucepan.
 - c amount of water in the saucepan.
 - **D** material the saucepan is made from.
- What can you do to make the experiment safer?
 Choose the correct row.

Wear heat proof gloves	Wait until the water has cooled before removing it	Put your finger in the water to check the temperature
yes	no	no
yes	yes	no
no	yes	yes
no	no	yes

Which picture shows how the boy sees the plant?



- 28 Why do leaves look green?
 - A The leaves contain tiny green lights.
 - **B** The leaves produce green light.
 - C The leaves reflect green light.

C

- **D** The leaves absorb green light.
- 29 Which picture best shows how an ice block floats in water?

Α

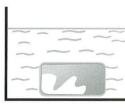
В

C

D





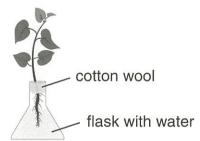


D

A student wants to see if plants lose water through their leaves.

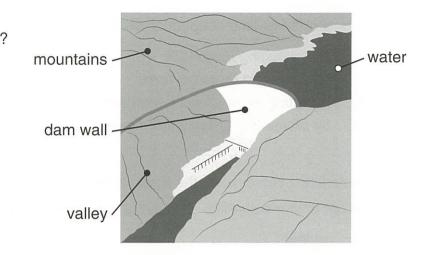
She puts a growing plant in a sealed flask containing water.

She notes the change in the amount of water in the flask.



- How can the student be sure that the plant loses water through its leaves?
 - repeat the same experiment
 - В repeat the experiment with soil in the flask
 - repeat the experiment with a different plant
 - repeat the experiment using a plant without leaves
- Why did the student seal the mouth of the flask?
 - to keep the stem dry
 - to hold the stem straight
 - C to stop insects falling into the flask
 - to stop water evaporating from the flask

- Which of these things in the picture has been man-made?
 - the water
 - the valley
 - the mountains
 - the dam wall



Electric power lines go from the dam to a city.

> Which of these conclusions can be made?

- Electric power is used to heat the dam water.
- The dam water is used to make electricity.
- The electric power is needed to light up the dam.
- There are many factories around the dam.
- Which of these is a renewable energy source?

sunlight

C

D

petrol

natural gas

- Which of these is most likely to have created a valley?
 - rainfall
 - strong winds
 - cutting of trees

coal

fast flowing river

- 19 How are the needle-shaped leaves likely to help the plant?
 - A by producing more fruit
 - **B** by collecting more sunlight
 - C by letting snow slide off the branches
 - **D** by preventing animals from eating the plant



Which colour butterflies are best able to hide from predators?

- A yellow
- **B** brown
- **C** white
- **D** orange

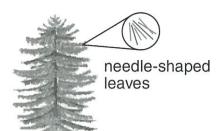


- 21 What type of landform is shown in the picture?
 - A cliff
- **B** dune
- **C** gully

- What created the landform in the picture?
 - **A** wind
- **B** water
- **C** humans
- **D** volcanoes

D

valley



– brown trunk

Four beakers that contain water are heated.

Beaker 1 contains the most water and Beaker 4 the least water.









Beaker 1

Beaker 2

Beaker 3

9

Beaker 4

23 In which beaker will the water boil first?

- A Beaker 1
- B Beaker 2
- C Beaker 3
- D Beaker 4

What happens when water is heated?

- A Water gains energy.
- B Water loses energy.
- **C** Water changes colour.
- D Water changes into a solid.