READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name in the spaces at the top of the front page.

Write in dark blue or black pen.

DO NOT WRITE IN ANY BARCODES.

Answer ALL questions.

The number of marks is given in brackets [ ] at the end of each question or part question.

You should show all your working in the booklet.

The total number of marks for this paper is 50.
1 Some solids dissolve in water and some do NOT.

Complete the table.
There are four spaces to fill.

One has been done for you.

<table>
<thead>
<tr>
<th>SOLID ADDED TO WATER</th>
<th>DOES THE SOLID DISSOLVE?</th>
</tr>
</thead>
<tbody>
<tr>
<td>iron</td>
<td>no</td>
</tr>
<tr>
<td>salt</td>
<td>______________</td>
</tr>
<tr>
<td>sand</td>
<td>______________</td>
</tr>
<tr>
<td>silver</td>
<td>______________</td>
</tr>
<tr>
<td>sugar</td>
<td>______________</td>
</tr>
</tbody>
</table>

[2]
Mass, force and weight can be measured.

Complete the sentences.

Choose from the following words.

Each word can be used once, more than once, or not at all.

KILOGRAMS  METRES  NEWTONS  SECONDS

Mass is measured in _________________.

Force is measured in _________________.

Weight is measured in _________________.
3 Complete the sentences about food chains.

Choose from the following words.

Each word can be used once, more than once, or not at all.

| CONSUMER | HABITAT | PREDATOR | PREY | PRODUCER |

Food chains start with a ___________________________.

An animal that eats plants is called a

__________________________________________________.

An animal that eats another animal is called a

__________________________________________________.

[3]
Drums are used to make sound.

Complete the sentences.

(a) The drum makes a higher pitch sound when the skin is ________________________________
__________________________________________ . [1]

(b) The drum makes a louder sound when

__________________________________________
__________________________________________ . [1]
5 Look at the properties of some materials on the Insert.

(a) A mixture contains A and B.

Which method would you use to separate this mixture?

Tick (✓) the correct box.

condensation

evaporation

filtration

magnetic attraction
(b) A solution contains D in WATER.

Which method would you use to separate pure D from this solution?

Tick (✓) the correct box.

condensation

evaporation

filtration

magnetic attraction

[1]
(c) A mixture contains C and WATER.

Which method would you use to separate this mixture to get C and water?

Tick (✓) the correct box.

condensation

evaporation

filtration

magnetic attraction
(d) A mixture contains C, D and WATER.

Which two methods would you use to separate the mixture to get both pure C and pure D?

Tick (√) the TWO correct boxes.

condensation

evaporation

filtration

magnetic attraction

[1]
Humans have organs inside their bodies.

Cats have similar organs inside their bodies.

(a) Which letter shows the organ the cat uses to breathe?

Circle the correct answer.

A   B   C   D   E   F [1]
(b) Which letter shows the organ that pumps blood around the cat’s body?

Circle the correct answer.

A   B   C   D   E   F  [1]

(c) Which letter shows an organ that digests the food the cat eats?

Circle the correct answer.

A   B   C   D   E   F  [1]
7 The picture shows an electrical cable.

(a) Label the picture.

Choose from the following words.

GLASS
METAL
PAPER
PLASTIC
WOOD

cable cover is ____________

wire is ________________

(b) Complete the sentence.

The cable cover is a good ________________
Plastic is often used to make containers for food.

Which properties must this plastic have to make containers for food?

Tick (✓) the THREE correct properties of the plastic.

- conducts electricity
- conducts heat
- insoluble in water
- magnetic
- melting point above 100 °C
- non-poisonous

[2]
9  Youssef is inside a room.

(a) The door opens into the room.

Complete the sentences.

Choose from the following words.

MAGNETIC   MOVING   PULLING

PUSHING   TWISTING

When he opens the door he uses a

___________________________ force.

When he closes the door he uses a

___________________________ force.

[1]
(b) Youssef thinks that the door does NOT open because there is too much friction.

What does he do to reduce the friction?

Circle the correct answer.

ADD CARPET UNDER THE DOOR

ADD OIL TO THE DOOR

MAKE THE DOOR BIGGER

MAKE THE DOOR HEAVIER

PUT A MAT IN FRONT OF THE DOOR
10 Pierre uses a candle to heat a beaker of water.

Here is a diagram of his experiment.

(a) The diagram shows the thermometer after 10 minutes.
What is the temperature of the water after 10 minutes?

___________________ °C [1]

(b) At the start the temperature of the water was 20 °C.
What is the temperature increase?

___________________ °C [1]

(c) Pierre continues to heat the beaker.
What happens to the water when its temperature reaches 100 °C?

_______________________________________ [1]

(d) Pierre sees some liquid wax at the top of the candle.
What process has happened to the solid wax?

_______________________________________ [1]
11 Youssef is using keys.

(a) He has four pictures of different animals.

A

B

C

D
Complete Youssef’s key.

Put A, B, C or D in the correct place at the bottom of his key.

- animals
  - number of legs
    - 2
    - 4
      - body covering
        - fur
          - long
            - [ ]
          - short
            - [ ]
        - scales
          - [ ]
      - [ ]
  - [2]
(b) Youssef wants to make a key to identify a spider and an insect.

Complete the key using number of legs.

```
number of legs

_____  _____

_____  _____

[2]
```
12 Plants have different parts.

Write down the names of parts A, B and C.

A ________________________________

B ________________________________

C ________________________________ [1]
13  Mike writes some notes about the Earth and the Sun.

He has left two gaps in his notes.

Complete Mike’s notes.

The Earth takes one ___________ to orbit the Sun.

The Earth spins on its __________ as it orbits the Sun. [2]
14 Draw a line to match each MATERIAL to its correct DESCRIPTION at room temperature.

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>gasoline</td>
<td>flammable liquid</td>
</tr>
<tr>
<td>gold</td>
<td>colourless gas</td>
</tr>
<tr>
<td>mercury</td>
<td>green gas</td>
</tr>
<tr>
<td>oxygen</td>
<td>attracted to a magnet</td>
</tr>
<tr>
<td></td>
<td>shiny solid</td>
</tr>
<tr>
<td></td>
<td>silver liquid</td>
</tr>
</tbody>
</table>
15 Class 6 investigate light.

- A hole is cut in a box.
- A flashlight is put inside the box.
- Different materials are put over the hole in the box.
(a) Predict what will happen if the material is TRANSPARENT.

Complete the sentence.

If the material is transparent I predict __________
_____________________________________________. [1]

(b) Why do we see light from the flashlight?

Circle the correct answer.

LIGHT GOES INTO OUR EYES
LIGHT IS REFLECTED BY OUR EYES
LIGHT GOES INTO THE FLASHLIGHT
LIGHT IS REFLECTED BY THE FLASHLIGHT [1]
A bee visits a flower.

The bee has little particles from the flower stuck to it.

The particles are labelled X on the picture.

(a) Write down the name of the particles.

_______________________________________ [1]

(b) The bee’s visit to the flower helps with a process in the life cycle of the plant.

Write down the name of this process.

_______________________________________ [1]
17 Jamila and Lily are investigating how a seed grows.

- Jamila puts one seed in a plastic pot.
- Lily adds soil and water.
- They leave the seed to germinate.
- They look at the seed every day for 6 days.

(a) Seeds need water to germinate.

Write down ONE other thing seeds need to germinate.

________________________________________________________________________ [1]
Here are the results.

<table>
<thead>
<tr>
<th>DAY</th>
<th>LENGTH OF ROOT IN cm</th>
<th>LENGTH OF STEM IN cm</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>1.0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>1.8</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>2.8</td>
<td>0.5</td>
</tr>
<tr>
<td>4</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>5</td>
<td>5.6</td>
<td>5.9</td>
</tr>
<tr>
<td>6</td>
<td>7.4</td>
<td>8.0</td>
</tr>
</tbody>
</table>

(b) The results are written in a table.

Describe one other way of showing the results.

_________________________________________ [1]

(c) Complete the sentences about the results.

The first one has been done for you.

On day 3 the root is longer than the stem.

On day 4 ___________________________________

_________________________________________ .

On day 5 ___________________________________

_________________________________________ . [2]
18 Rajiv has two big magnets.

(a) He puts the magnets in different positions.

Complete the sentences under each diagram.

In this position the magnets will ______________ .

In this position the magnets will ______________ .

(b) Rajiv puts a smaller magnet near one of the big magnets.

The small magnet moves towards the big magnet.

What is the pole at X on the small magnet?

__________________________________________

[1]
(c) Some objects are attracted to magnets.

Circle the correct objects that are attracted to magnets.

ALUMINIUM COMB
COPPER PIPE
GOLD RING
IRON NAIL
NICKEL COIN
STEEL PAPERCLIP
19 Priya investigates reflection of light using a flashlight.

She shines the flashlight at a mirror and draws the path of the ray of light.

Priya has not completed the diagram.

Draw the ray of light coming from the mirror. [1]