

Name:

Date:

Grade: /30

Write the letter in each box. Letters only (capital or common)

Item #	1 - 3
Item type	Verbal Reasoning
Category	Classification
Targeted skills	Analyse, Compare, Classify

Question 1

Which does **NOT** belong to the group?

- A. Candle
- B. Flashlight
- C. Mirror
- D. Sun

Question 2

Which is the **odd** one out?

- A. Baking a cake
- B. Boiling an egg
- C. Frying a sausage
- D. Melting some butter

Try to find what is similar about the options

What groups could they be placed in?

Choose the option that is different from the others

Question 3

Which of the following does **NOT** belong in this group?

- A. Corn
- B. Kidney beans
- C. Lentils
- D. Peanut

Reading Passage - Growing vegetables

Tomatoes and Peppers can be planted yearlong once sufficient moisture is available. The best method for planting these vegetables is by transplanting seedlings that were planted in seed trays or boxes. Tomatoes need lots of sun, rich loose soil and lots of water. The roots, not the leaves, must be watered. Tomato plants grow very tall so they need to be tied to a pole or be staked.

Use the information to answer the questions below.

Question 4

Which statement gives the **best** conditions for growing tomatoes?

- A. Tomatoes are planted by transplanting seedlings
- B. Tomatoes can be planted all year long
- C. Tomatoes grow very tall and need to be tied
- D. Tomatoes need lots of sun and water

Read carefully to obtain details

Question 5

A farmer uses a sprinkler system that sprays water high into the air to water his tomatoes.

Which statement **likely** explains why the farmer should stop this practice?

- A. Tomatoes need rich loose soil
- B. Only the leaves must be watered
- C. Only the roots must be watered
- D. Tomatoes need to be tied to a pole

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Question 6

All matter takes up space and has mass. All solids, liquids and gases are matter. Therefore, all gases _____.

- A. cannot be seen and has mass
- B. has mass and takes up space
- C. can be seen and takes up space
- D. has no mass and takes up space

Start by eliminating the statements that are way out

Look closely at the statements that remain

Choose the best ones that fit the information given

Question 7

Find the TWO statements below that together prove that:

Steven attends Science Club

1. Steven's school has Chess and Science clubs
2. Shana has Science Club with Jake
3. Steven's friend Jake attends Chess and Science clubs
4. Steven and Jake are in the same clubs
5. Jake's sister Shana attends Chess club with Steven

- A. 1 and 2
- B. 1 and 5
- C. 2 and 3
- D. 3 and 4

Question 8

A class investigated the growth of plants under different environmental conditions. The results were placed in the table below.

Group	Amount of light	Amount of water	After 2 weeks
1	Plenty	Little	Plants were small and brown
2	Plenty	Plenty	Plants were tall and green
3	Little	Plenty	Plants were very tall and pale yellow

Which statement is **most likely** true?

- A. Plants grow best with plenty of light
- B. Plants grow best with plenty of light and water
- C. Plants grow best with plenty of water
- D. Water and light do not affect plant growth

Analyse the results in the table

Which statement supports these results?

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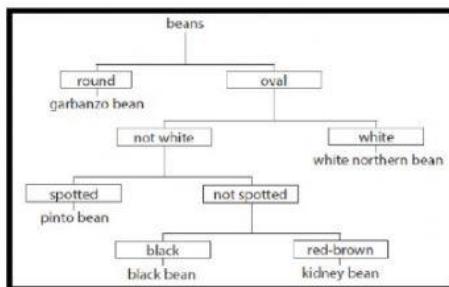
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Question 9

The diagram below shows a key that is used to identify beans.



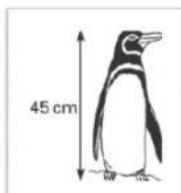
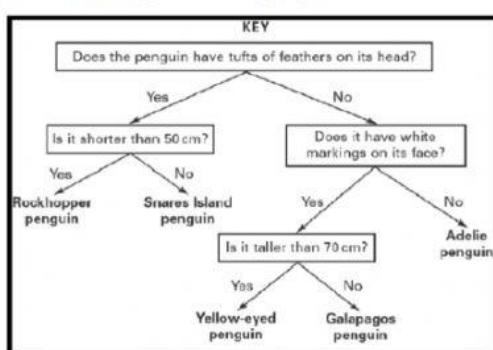
What is the **best** description of a pinto bean?

- A. Oval and spotted
- B. Oval and not spotted
- C. Round and spotted
- D. Round and not spotted

Analyse the diagram
What characteristics
can be identified?
Which is the most
suitable group?

Question 10

The diagram below shows a key used to identify penguins.



The penguin in the diagram is **best** described as a/an _____

- A. Yellow-eyed penguin
- B. Rockhopper penguin
- C. Galapagos penguin
- D. Adelie penguin

Analyse the diagram
What characteristics
can be identified?
Which is the most
suitable group?

Name:

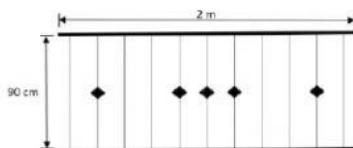
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Scenario

Use the information below to answer items 12 and 13.



The diagram above shows the design of a handrail for a length of walkway for a school located 400 metres from the beach. The horizontal bars each measure 2 metres, the vertical bars each measure 90 cm and the handrail is designed with 5 decorative stars.

Question 12

A student wants to use the same design to cover 6 metres.
How many decorative stars would he need for the handrail?

- A. 5
- B. 10
- C. 30
- D. 15

Use the
information given
in the question
Make calculations

Question 13

What is the total length of horizontal bars needed to make the 6-metre handrail?

- A. 6 metres
- B. 12 metres
- C. 18 metres
- D. 24 metres

The label below shows nutrition facts about a container of Macaroni and Cheese Pie. Use the information to answer items 14 and 15.

SHAQ'S MACARONI AND CHEESE PIE	
NUTRITION FACTS	
Serving Size 1/2 cup (228 g)	
Servings Per Container: 3	
AMOUNT PER SERVING	
Calories 240	Calories from Fat 110
% Daily value	
Total Fat 10 g	16%
Saturated Fat	15%
Trans Fat	1%
Cholesterol	30%
Sodium	15%
Total Carbohydrate	24%
Protein 10 g	
Vitamin A	2 %
Vitamin C	3 %
Cholesterol 2000	2500
Total Carbohydrates 300 g	375 g

Question 14

Merrick ate three servings of the Macaroni and Cheese Pie.
What percentage of the daily value for total fat did he eat?

- A. 10
- B. 16
- C. 30
- D. 48

Analyse the
data given on
the label
Use this to
answer the
question

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Question 15

How many calories did Merrick consume?

- A. 240
- B. 720
- C. 228
- D. 110

Always recheck your calculations

Use all the information given in the question

Question 16

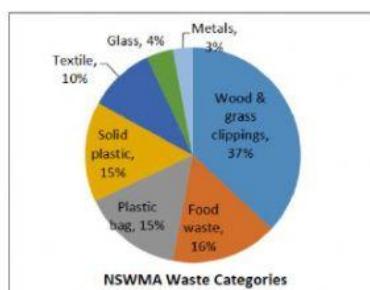
A seed box had twelve tomato seeds planted. Some of the tomato plants did not germinate. If nine plants germinated.

What percentage of the plants did **not** germinate?

- A. 3%
- B. 25%
- C. 33%
- D. 75%

Question 17

The pie chart below shows the categories of waste collected from Jamaican households.



The National Solid Waste Management Authority (NSWMA) has suggested that portions of the waste that can decompose should be composted.

What percentage of the waste should be composted?

- A. 16%
- B. 37%
- C. 53%
- D. 47%

Use data in the graph

Recheck your calculations

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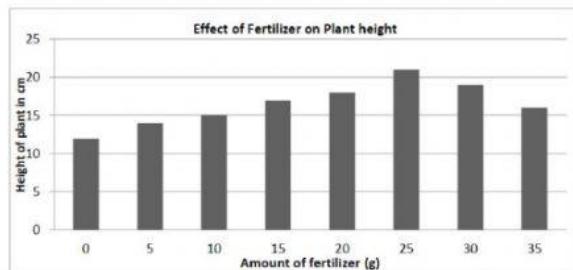
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Question 18

A student conducted an investigation on the effect of fertilizer on the height of red peas grown over a period of 4 weeks. The student's results were placed on the chart below.



Choose the letter to show whether the following statements are **supported** or **not supported** based on the results of the investigation.

	Statements	Supported	Not Supported
1	Plant height is not affected by the amount of fertilizer	A	B
2	Increasing the amount of fertilizer will always increase plant height	A	B
3	Fertilizer amounts over 25 grams will reduce plant growth	A	B

Look at each statement carefully
Is the statement supported by the graph?

Question 19

The body temperatures of different animals in hot and cold environments are shown in the table below.

Table showing body temperatures of animals in different environments.

Name of Animal	Animal Body Temperature °C	
	Cold environment - 10°C	Hot environment - 30°C
Snake	10	30
Bobcat	38	39
Fish	10	30
Rat	38	38

A student placed a snake and a rat in an environment at 25°C.

Which body temperatures are they **most** likely to have after a few days?

- A. Snake 20 °C and Rat 25 °C
- B. Snake 25 °C and Rat 38 °C
- C. Snake 37 °C and Rat 25 °C
- D. Snake 38 °C and Rat 38 °C

Examine the results in the table
What patterns do you see?
Use the patterns to make a prediction

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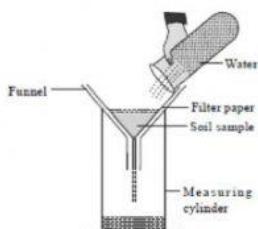
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Question 20

A student measured the time it takes for water to pass through different soil samples. The diagram of the experiment is shown below. The table shows the results of the student's investigation.

**Table showing the volume of water and time taken for different soils**

	Clay	Loam	Sand
Volume of water added to soil (cm ³)	30	30	30
Volume of water collected in cylinder (cm ³)	24	27	29
Time for water to pass through funnel (minutes)	5	2	1

Choose the letter that completes the conclusion below.

Water takes longer to pass through A. Clay
B. Loam
C. Sand soil.

A. Clay
B. Loam
C. Sand soil has the **least** water-holding capacity of the soil samples.

Analyse the results in the table

Which soil held the most water?

Question 21

A student wants to find out how the temperature of the water affects the time it takes a sugar cube to dissolve in water.

- He does the experiment three times at four different temperatures
- He uses one sugar cube each time and the same volume of water.
- The results are shown in the table.

Table showing time taken for sugar cube to dissolve at different temperatures.

Temperature of water (°C)	Time (minutes)		
	Test 1	Test 2	Test 3
30	10	9	11
40	8	8	9
50	7	7	8
60	6	6	7

Which statement **best** describes the pattern of the results?

- The more water used, the shorter the time taken
- The higher the temperature, the longer the time taken
- The more water used, the longer the time taken
- The higher the temperature, the shorter the time taken

Look for patterns
Compare how quickly the sugar dissolved at different temperatures.

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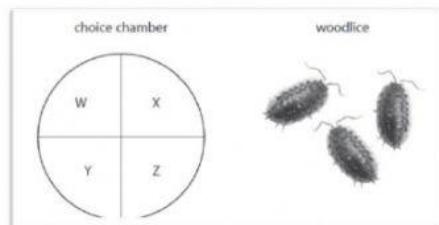
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Question 22

A class investigated the habitat preferred by woodlice. They set up a Choice Chamber with four sections W, X, Y and Z representing different habitats for the woodlice.



The class released 20 woodlice into the chamber and counted how many woodlice were in each section after five minutes. These are their results.

Section	Description	Number of woodlice
W	Dry and light	2
X	Damp and light	5
Y	Dry and dark	3
Z	Damp and dark	10

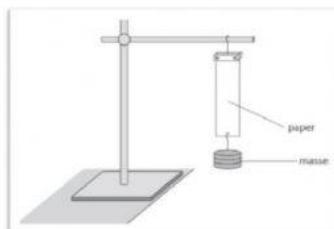
What conclusion can the class make from the results?

- A. Woodlice prefer dark habitats
- B. Woodlice prefer damp habitats
- C. Woodlice prefer dry habitats
- D. Woodlice prefer the light

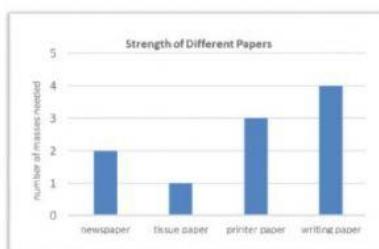
Compare the number of woodlice in each section
What is similar about the sections that had more woodlice?

Question 23

A student investigated the strength of different types of paper by hanging different masses on the paper until the paper tears.



The results are shown in the bar graph.



Which type of paper was the strongest?

- A. Printer paper
- B. Newspaper
- C. Tissue paper
- D. Writing paper

Analyse the information in the graph

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A student investigates friction by pulling a block and recording the force needed using a force meter. The results are shown in the table. Use the information to answer items 24 and 25.

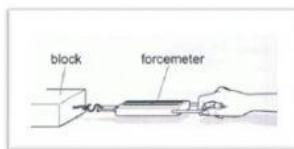


Table showing the force needed for different surfaces

Surface	Force needed (in Newtons)
Table top	2.5
Paper towel	2.8
Fine sand paper	3.0
Rough sand paper	3.3

Question 24

What is the conclusion for this investigation?

- A. Force moves objects on different surfaces
- B. Force stops objects from moving
- C. The rougher the surface, the greater the force needed
- D. The smoother the surface, the greater the force needed

Analyse the information in the table

What pattern can you find?

Question 25

Oil is added to the table top. Which prediction will likely take place?

- A. The force needed will be 2.0
- B. The force needed will be 2.6
- C. The force needed will be 3.1
- D. The force needed will be 3.4

Question 26

Some students were carrying out an investigation to determine the best material for soundproofing. These are the steps carried out.

They measured the sound level of an alarm from a phone in an open box. They then measured the sound level of the phone alarm in the following situations:

1. When the box was closed
2. When the box was packed with different materials and closed

The results are shown in the table below.

Where the phone alarm was placed?	Sound level in decibels (dB)
Open box	80
Closed box	70
Closed box packed with bubble wrap	40
Closed box packed with cotton	50
Closed box packed with fabric	55
Closed box packed with paper	60

Which material is **best** for soundproofing the box?

- A. Bubble wrap
- B. Cotton
- C. Fabric
- D. Paper

Analyse the results
Use the information to draw conclusions