Primary Science Annual
June 2026 - Report

1. General comments about the Primary Science Annual papers.

The 2026 Primary Science annual exam assessed scientific knowledge, skills and competences related to the Learning Outcomes within the Primary Science syllabus re everyday life experiences. Students in Year 4, Year 5 and Year 6 sat for a one hour written exam that carried 60% of the Primary Science global mark. The Primary Science annual exam paper content and layout were planned in a student-friendly manner and included diagrams and different types of questions assessing both lower and higher order cognitive skills. The Primary Science exam format is aligned towards the Trends in International Mathematics and Science Study (TIMSS) international assessment of mathematics and science achievement.

2. Distribution of marks.

To ensure content validity and adequate emphasis on all components of the Primary Science learning outcomes, a specification grid is used for this purpose. The specification grid highlights the learning outcome/syllabus reference tested, the question number, marks allotted, and abilities tested. Abilities refer to cognitive domains including content knowledge, application and reasoning. Furthermore, the specification grid provides the total percentage allotted for each ability component.

3. Comments about each paper and implications for teaching and learning.

This section aims to equip the educator with valuable feedback and information on students' understanding of concepts assessed during the Primary Science annual exam. Such feedback may be used to identify students' misconceptions and reflect on teaching and learning.

Year 4

Students generally demonstrated good basic scientific knowledge, but found greater difficulty in applying concepts, particularly in relation to shadows, friction, fair testing and the use of scientific keywords.

Below is a sample of questions reviewed from the Year 4 Primary Science Annual 2026 exam paper.

Question 1 and Question 2: Students generally answered this question successfully, indicating secure understanding of the topic senses and sound, with incorrect responses appearing to be isolated rather than reflecting a widespread misconception.

Question 3: Students demonstrated mixed understanding, with difficulties emerging in part (d) related to shadows. The difficulties with shadows suggest a need for more hands-on investigation, giving students regular practice observing, predicting and explaining how shadows are formed and change. Some incorrect responses were related to the term 'edible' which is listed as one of the scientific keywords. Some students explained 'edible' as 'not safe to eat'.

Question 4: Most students demonstrated sound knowledge on the topic space. However, difficulties with the word-bank exercise in part (b) suggested that some incorrect responses may have resulted from literacy difficulties rather than complete lack of scientific knowledge. In addition, a genuine content misconception was noted in part (a) where a number of students identified Earth as the planet with two moons, and some students mixed up the characteristics of Mercury and Jupiter.

Question 5: Performance was generally satisfactory, although some students confused scientific concepts related to weather instruments with familiar everyday examples, resulting in incorrect responses. Incorrect responses included "rain" or "water" for part (i) and "rotates with the wind" or "collects the wind" for part (iv). Students would benefit from further practice linking scientific tools and concepts to their specific functions and explaining why they are appropriate.

Partially correct response:

5. Weather instruments are used to record the weather.
a) Write down what each instrumet is used for.

	Name of instrument	Weather Instrument	Use of Instrument
i.	Rain Gauge		To measure the rainfall
ii.	Thermometer		To measure the temperature
iii.	Wind Vane		To show where the wind is coming from.
iv.	Anemometer		To see if theres wind.

(4 marks)

Question 6: Students generally recognised basic concepts related to forces and friction, but many found it more difficult to apply their knowledge, particularly when asked to provide an appropriate real-life example of how friction can be helpful. Educators should encourage students to regularly apply scientific concepts to everyday situations, helping them distinguish between describing a concept and giving a relevant example.

Correct response:

d) Friction can be useful in our lives.
Give **one** example of how friction can help us.
If you are catching a ball friction is needed ~~because~~ if there was no fricti to catch the ball.
(1 mark)
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Incorrect responses:

d) Friction can be useful in our lives.
Give **one** example of how friction can help us.
When we slip we need friction.

d) Friction can be useful in our lives.
Give **one** example of how friction can help us. vague
Friction can help us drive but witout friction you dont drive.
(1 mark)
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Question 7: Most students were able to identify and explain why the food chain was incorrect, particularly in part (i). However, some responses showed that students do not yet have a secure understanding of the order and relationships between living things in a food chain, including misusing scientific vocabulary such as "predator" and "prey". Students would benefit from more regular practice constructing, interpreting and explaining food chains using the correct scientific vocabulary.

Correct response:

b) The food chain below is incorrect.

i. Explain why this food chain is incorrect. Use one or more of these scientific terms: **predator, prey or energy** in your answer.

Because the energy is the sunflower and the prey is the caterpillar and the predator is the robin. 2

(2 marks)

Partially correct response:

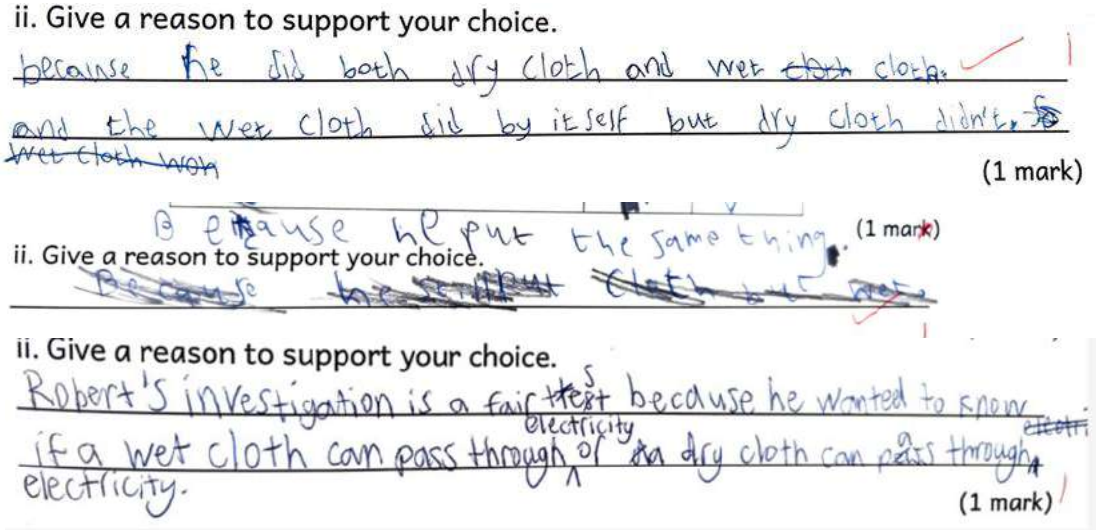
i. Explain why this food chain is incorrect. Use one or more of these scientific terms: **predator, prey or energy** in your answer.

because and Pincannot eat a Sunflower ~~it~~ is not a herb, ~~the~~ caterpillar is too small to eat a bird

(2 marks) 1

Question 8: Students' responses show uncertainty in their understanding of conductors and insulators, particularly in parts (a. i. and ii.). Some students correctly recognised that electricity could pass through water but then incorrectly classified water as an insulator. In part (b. ii.), most students struggled to provide a valid response, with the most common incorrect answer being to simply repeat the experiment three times. This suggests that students may be familiar with the concept of reliability when carrying out an investigation but do not understand the meaning of a fair test and its importance in experimentation.

Correct responses:


ii. Give a reason to support your choice.

because he did both dry cloth and wet ~~cloth~~ cloth. and the wet cloth did by itself but dry cloth didn't, ~~so wet cloth won~~

(1 mark)

because he put the same thing. (1 mark)

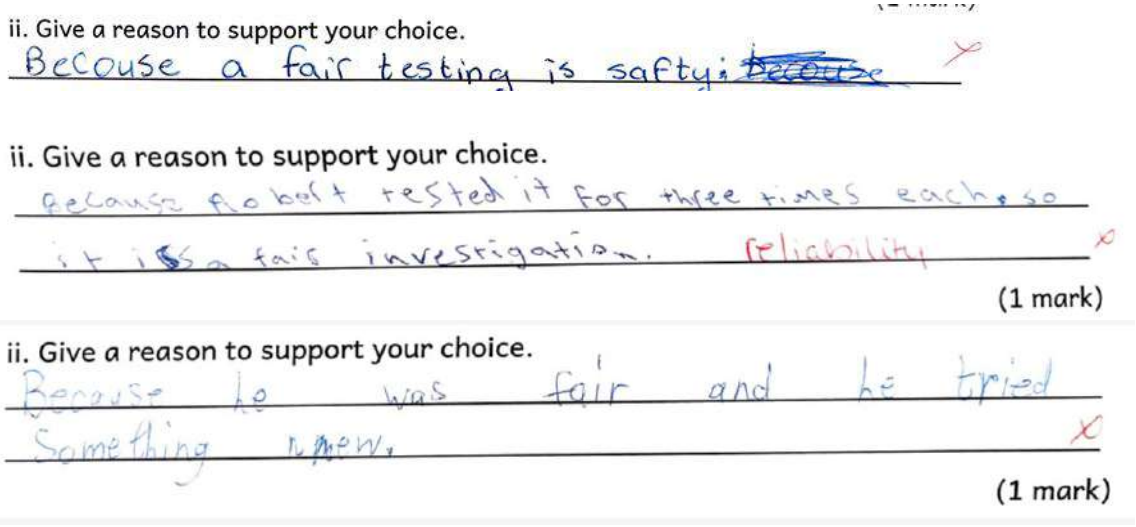
ii. Give a reason to support your choice.

ii. Give a reason to support your choice.

Robert's investigation is a fair ~~test~~ because he wanted to know if a wet cloth can pass through ~~or~~ electricity a dry cloth can pass through electricity.

(1 mark)

Incorrect responses:


ii. Give a reason to support your choice.

Because a fair testing is safty; ~~because~~

ii. Give a reason to support your choice.

because robert tested it for three times each, so it is a fair investigation. reliability

(1 mark)

ii. Give a reason to support your choice.

Because he was fair and he tried something new.

(1 mark)

Question 9: Students showed some misconceptions in distinguishing between food hygiene and food safety, understanding what makes a balanced meal, and identifying reversible and irreversible changes. Many appeared to rely on isolated facts rather than applying their scientific understanding to the context. This highlights a need for further practice comparing, classifying and justifying answers, so students can develop a clearer understanding of related scientific concepts and apply them accurately in everyday situations.

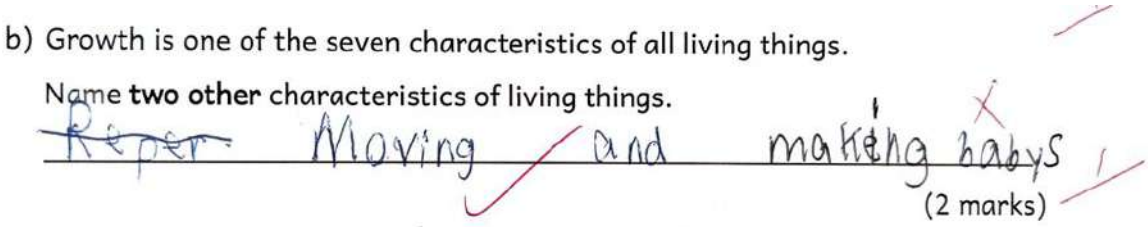
Year 5

Overall performance was good, with students showing sound knowledge across several topics, while scientific precision, data interpretation and the application of knowledge in contexts such as circuits and environmental issues emerged as key areas for development.

Below is a sample of questions reviewed from the Year 5 Primary Science Annual 2026 exam paper.

Question 1: Students generally demonstrated sound knowledge of living things and invertebrates. However, some confused stages in the life cycle of the butterfly or provided examples and everyday descriptions instead of the expected scientific characteristics or definition. Greater emphasis is needed on the precise use of scientific vocabulary and on distinguishing between giving an example, describing a characteristic and providing a scientific definition.

Partially correct response:


b) Growth is one of the seven characteristics of all living things.

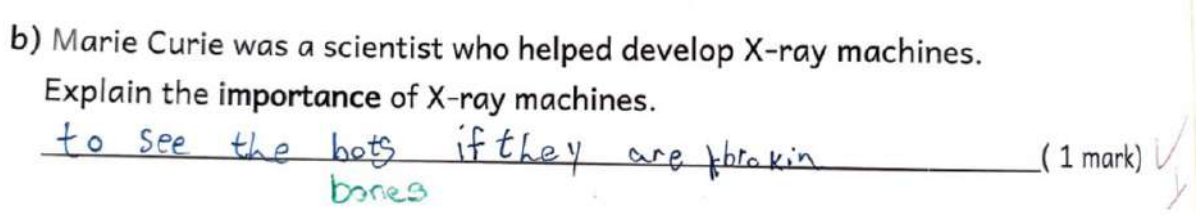
Name **two other** characteristics of living things.

~~Reper~~ Moving and making babys

(2 marks)

Question 2: Most students demonstrated an understanding of the role of the skeleton in protecting the body, although some confused the functions of the skull and rib cage or provided answers that were too general. Students should be encouraged to give precise scientific explanations by linking each body structure to the specific organs it protects.

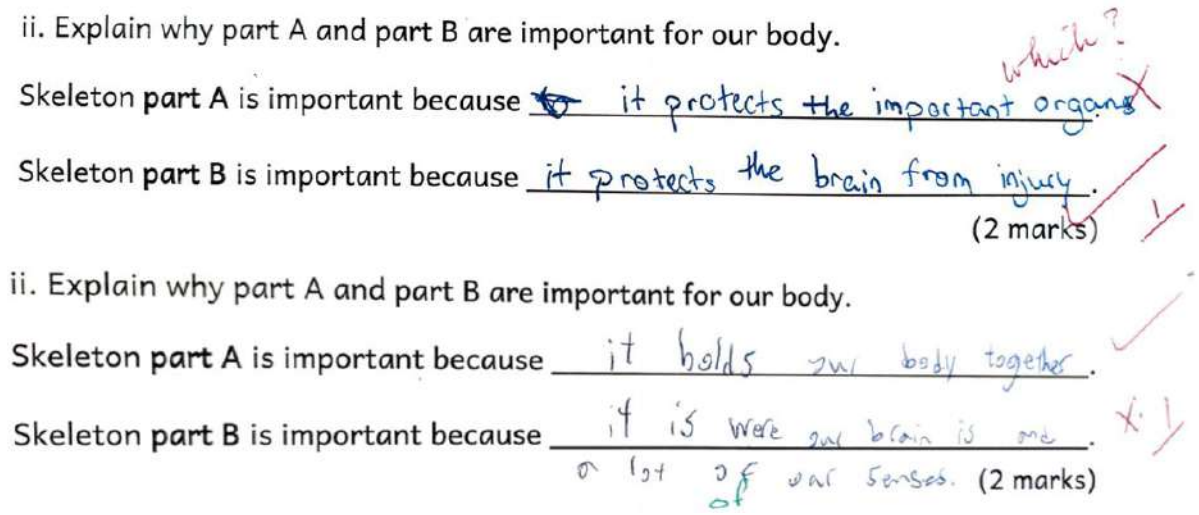
Correct response:


b) Marie Curie was a scientist who helped develop X-ray machines.

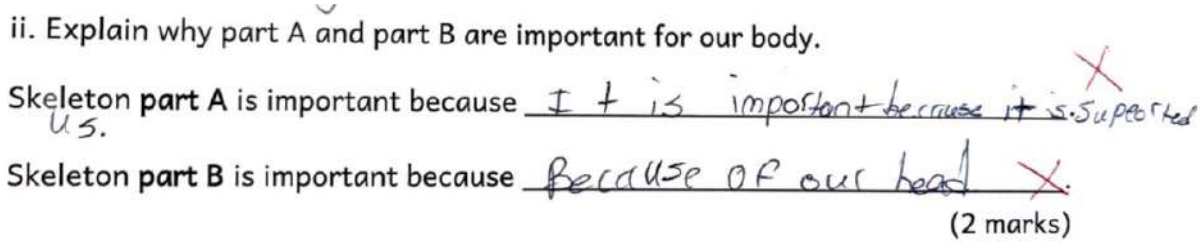
Explain the **importance** of X-ray machines.

to see the bots if they are brakin bones (1 mark)

Partially correct responses:



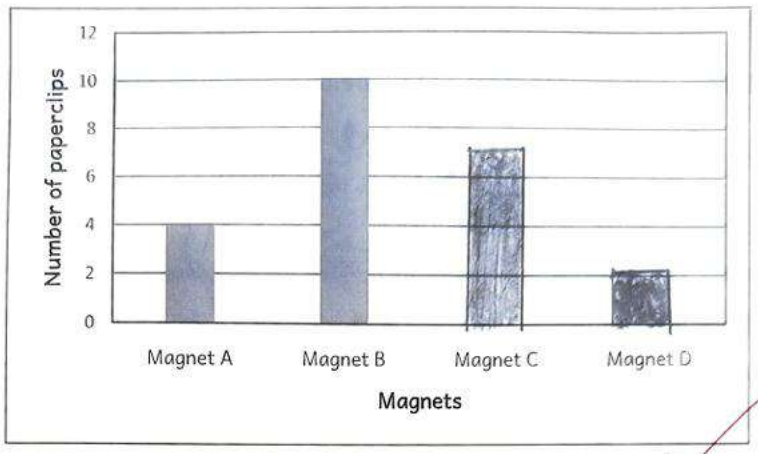
Incorrect response:



Question 3: Students generally recognised basic properties of magnets and magnetic materials, but some confused magnetic materials with magnetic objects. Difficulties were also noted in completing and interpreting bar graphs. In addition, very few students could explain that magnetic force can act through non-magnetic materials such as glass or water. Further attention should be given to scientific precision and to developing data-handling skills within meaningful science contexts.

Correct responses:

i. Use the results in the table above to **complete** the bar graph below. (2 marks)



2

Explain why the magnet can still attract the paperclips even though they are inside the glass full of water.

1

Because if the paperclips are made from a magnetic object, it will the magnet will attract it even if it is in water (1 mark)

Question 4: Students showed partial understanding of environmental issues but often struggled to explain the causes and consequences of specific problems, with some confusing concepts or providing vague responses. Students should be encouraged to explore cause-and-effect relationships further and apply environmental knowledge to specific contexts.

Incorrect responses:

a) Explain the scientific word **endangered**.

Dieing X

(1 mark)

b) Name **two** reasons why the **Maltese freshwater crab** is becoming endangered.

Reason 1: Getting caught in fishing nets X

Reason 2: Over fishing X

(2 marks)

b) Name **two** reasons why the **Maltese freshwater crab** is becoming endangered.

Reason 1: Crab tastes good

Reason 2: The pinsers are useful. pinsers

(2 marks)

Question 5: Overall performance was good, with many students successfully identifying forms of energy and related examples. However, a distinct and recurring misconception was noted in part (a), where a number of students confused the energy needed to make an appliance work (input energy) with the energy the appliance produces (output energy). Many students also left part (b) unanswered altogether. Teaching and learning should increasingly focus on applying knowledge of energy in different contexts, clearly distinguishing between energy input and output, and explaining energy changes rather than simply identifying forms of energy.

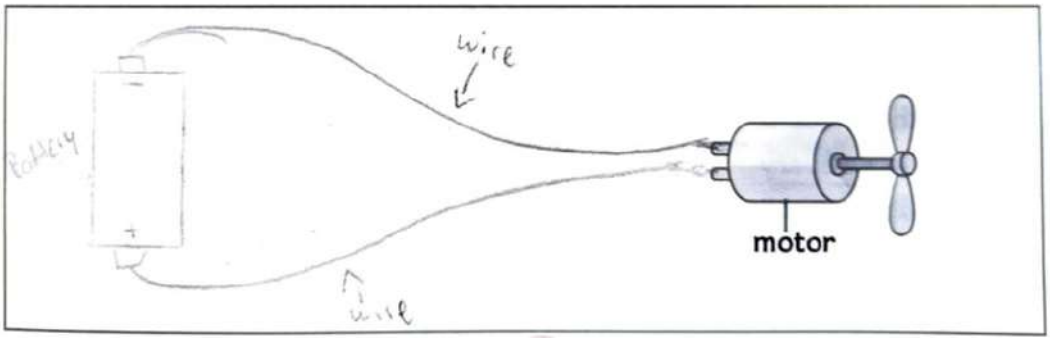
Incorrect response:

a) Name the **form of energy** needed to make all the appliances above work.

Light energy, kinetic energy, heat energy, sound energy.

(1 mark)

Correct response:

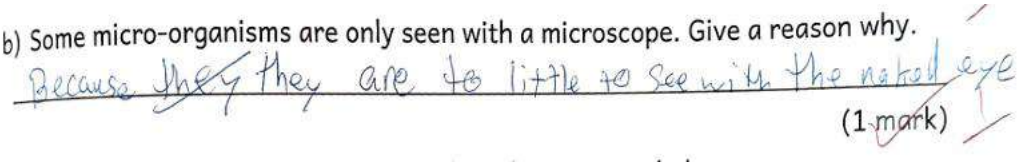


Question 6: Most students answered satisfactorily, although some confused concepts related to seasons with day and night. Educators should reinforce the differences between related Earth–Sun phenomena through visual models and demonstrations, giving students regular chances to explain the underlying processes in their own words.

Question 7: This was generally a strong area, with most students demonstrating a good understanding of useful and harmful micro-organisms and the role of the microscope, although a small number of misconceptions remained. Some students also chose "probiotic" instead of "fermentation" when asked about the process that

makes dough rise. Students' responses otherwise indicate generally secure understanding.

Correct response:


b) Some micro-organisms are only seen with a microscope. Give a reason why.

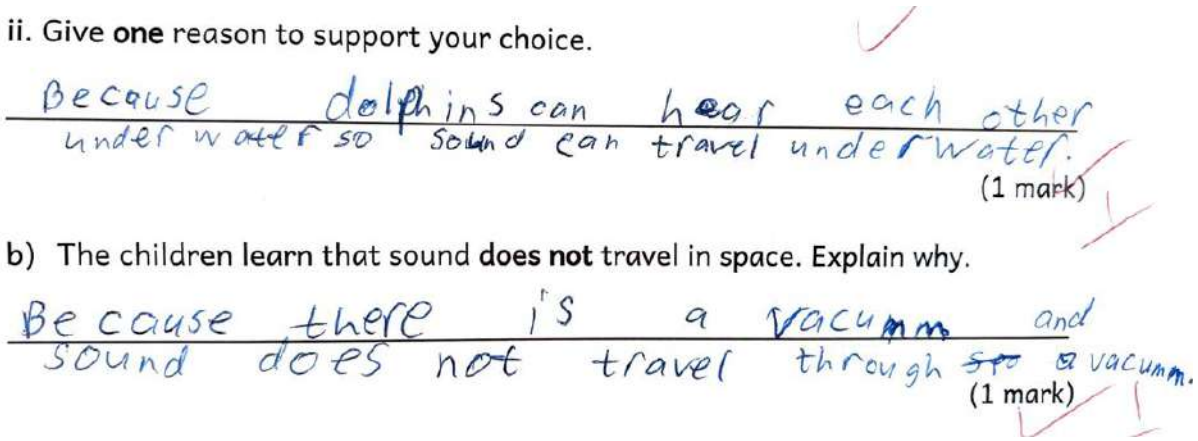
Because ~~they~~ they are to little to see with the naked eye

(1 mark)

Question 8: Most student responses were correct with no notable difficulties.

Question 9: Overall performance was satisfactory, with most students demonstrating an understanding of basic concepts related to sound, although some misconceptions remained regarding how sound travels. Some students incorrectly attributed the inability of sound to travel in space to a lack of gravity or oxygen, rather than the absence of a medium such as air, for sound to travel through. Practical investigations involving the transmission of sound could help students develop a clearer conceptual understanding and address this misconception.

Correct response:


ii. Give **one** reason to support your choice.

Because dolphins can hear each other under water so sound can travel under water.

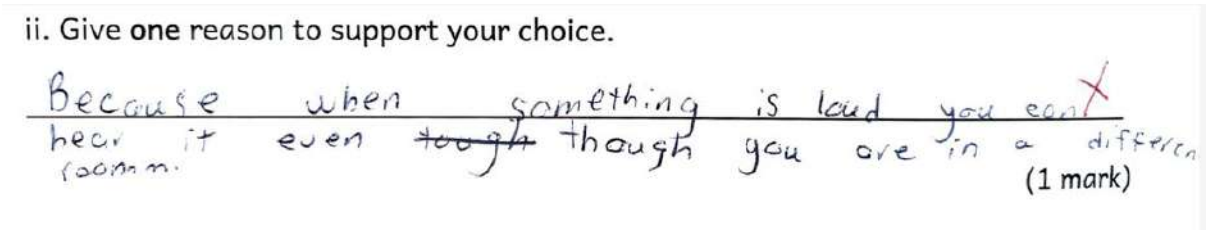
(1 mark)

b) The children learn that sound **does not** travel in space. Explain why.

Because there is a vacumm and sound does not travel through ~~sto~~ a vacumm.

(1 mark)

Incorrect responses:


ii. Give **one** reason to support your choice.

Because when something is laud you can hear it even ~~tough~~ though you are in a differen roomm.

(1 mark)

b) The children learn that sound **does not** travel in space. Explain why.

Because there is no gravitation in space. X

(1 mark)

Year 6

Students showed generally good recall and understanding of scientific concepts, but experienced notable difficulties with explaining scientific ideas, interpreting trends in data and applying knowledge, particularly in changes of state, energy and nutrient functions.

Below is a sample of questions reviewed from the Year 6 Primary Science Annual 2026 exam paper.

Question 1: Students generally demonstrated a good understanding of forces and streamlining. Some were confused about the direction of the force of air resistance. For part (d) some students listed different types of birds as streamlined objects while others described a streamlined object. Incorrect responses included pointed objects such as a pencil and a knife that are not related to motion. Educators should continue developing students' ability to apply scientific knowledge to different situations rather than relying on recalling information.

Incorrect response:

d) Name one **other** example of a streamlined object.

A streamlined object is smooth and curved. (1 mark) X

Question 2: This question revealed significant difficulties. A very high proportion of students incorrectly classified changes of state such as melting or freezing, as chemical changes rather than physical changes, indicating a widespread misconception that needs to be addressed directly in teaching. In addition, particularly in understanding whether temperature increases or decreases during changes of state, for part (iv) most students erroneously ticked "liquid" instead of "gas", indicating a further misconception related to particle distribution in each state. Further conceptual development through practical investigation and visual modelling is required on this topic, with emphasis on physical change.

Partially correct response:

c) Tick (✓) the correct column in the table below to match the characteristic with the state of matter (solid, liquid or gas).

	Characteristics	Solid	Liquid	Gas
i.	Has a fixed shape.	✓		
ii.	Particles have a lot of space between them.			✓
iii.	Can take the shape of the container and can be poured.		✓	
iv.	Fills up all the space in the container.	✓		

3

(4 marks)

Question 3: Students generally performed well. Most interpreted the bar graph correctly and carried out simple calculations correctly. Most students understood the concept and consequences of overfishing. However, many struggled to identify or describe trends in the data shown in the bar graph. Students would benefit from more practice moving beyond simply reading data, towards recognising patterns, describing trends and using evidence to explain scientific phenomena.

Incorrect responses:

c) Describe your observation about the number of sardines caught over the years.

The Amount of sardines got together ~~to~~ is ~~overfishing~~ a large amount of 380,000. (1 mark)

e) Describe what may happen if fishermen catch too many sardines.

We won't have Fish in our ~~Sea~~ sea.

e) Describe what may happen if fishermen catch too many sardines.

if fishermen catch too many Sardines then ~~the~~ the Sea animals wouldn't ~~#~~ survive (1 mark)

Question 4: Most students' responses to part (a) were incorrect, indicating difficulties with misconceptions on light and mirrors and/or literacy difficulties. Many students struggled with part (b) and some found it difficult to communicate their knowledge using clear scientific explanations and appropriate vocabulary, including "mirror". Some students' responses were also vague. Students should practise constructing short scientific explanations more regularly, using key terminology accurately.

Correct response:

b) The word "POLICE" is written on the front of a police car as shown in the picture on the right. Explain why.

When people see the word police with their mirror the word will be reversed

(1 mark)

Incorrect responses:

b) The word "POLICE" is written on the front of a police car as shown in the picture on the right. Explain why.

~~is~~ so they can see that there is the police

(1 mark)

ii. Write down what the children can conclude from this investigation.

It is decreasing each time.

(1 mark)

Question 5: Students generally recognised examples of renewable and non-renewable energy, but some confused energy sources such as sun and wind with energy technologies such as solar panels and wind turbines. Most students struggled to explain why a particular source is suitable for Malta, many attributing this to the fact that Malta has hot weather or because solar panels are good for the environment. Most students were also not aware of the function of the interconnector and answered this question incorrectly. Educators should clearly distinguish between energy sources, technologies and their application within a specific context.

Incorrect responses:

c) Give a reason to explain why the renewable source of energy chosen in question 5b is suitable for Malta.

It is suitable because there are a lot of solar panels.

(1 mark)

c) Give a reason to explain why the renewable source of energy chosen in question 5b is suitable for Malta.

It is suitable because then we won't harm the enviroment ~~with~~ fossil fuels.

(1 mark)

explain their choices scientifically and confused the functions of different nutrients.

Responses were vague, such as "a salad is healthy", but did not mention vitamins, minerals, carbohydrates or fibre. Students' understanding of what counts as a "protein" food also varied widely. Greater emphasis should be placed on linking foods to their nutrients and the specific functions those nutrients perform in the body.

Correct responses:

ii. Give a reason to support your choice.

Vegetables salad is packed with ~~protein~~ fibre, vitamins and minerals, and wholemeal bread has lots of carbohydrates.

(1 mark)

ii. Give a reason to support your choice.

Vegetables have vitamins and minerals and ~~and bread~~ fibre.

(1 mark)

ii. Give a reason to support your choice.

It has a lot of fibre, which makes it the optimal choice out of the three.

(1 mark)

Incorrect responses:

ii. Give a reason to support your choice.

Because ~~all~~ it has almost all the things you need to eat to stay ~~healthy~~ healthy.

(1 mark)

ii. Give a reason to support your choice.

Wholemeal bread is very healthy ~~ans~~ and so are vegetables.

(1 mark)

ii. Give a reason to support your choice.

Because vegetable is great to keep our body healthy and wholemeal bread help our digestive system work properly (1 mark)

Question 7: Students generally performed well in questions related to sound and the hearing process, although some showed uncertainty regarding the connection between hearing and the nervous system. Further links should be made between sense organs, nerves and the brain to support a more integrated understanding of the topic.

Partially correct response:

b) Our ears are sensitive to different sounds.
Tick (✓) the correct column in the table below to show whether each statement is **True** or **False**.

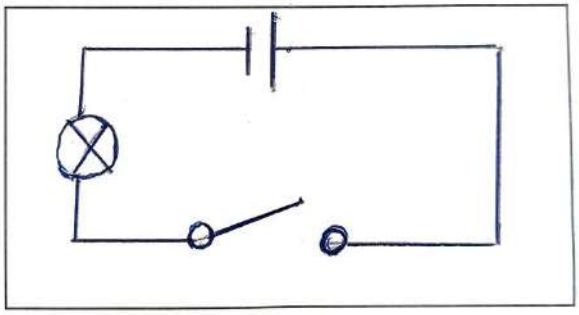
		True	False
i.	We should listen to very loud music all the time.		✓
ii.	Children do not need earmuffs in loud places.		✓
iii.	Earmuffs are designed to reduce loud noise and protect our ears.	✓	
iv.	All sounds have the same pitch.		✓
v.	Hearing forms part of the nervous system.		✓

(5 marks)

Question 8: Most students demonstrated a satisfactory understanding of electrical circuits, although some errors related to the accurate representation of circuit symbols and components. It is highly recommended that hands-on work with real electric circuit components form a substantial part of the practical lessons, to support conceptual understanding.

Correct response:

a) In the box below draw a circuit using all the three components above.



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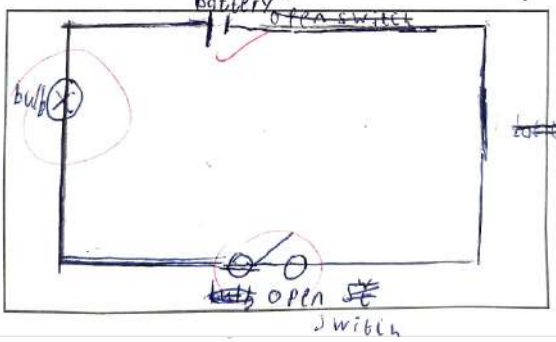
(3 marks)

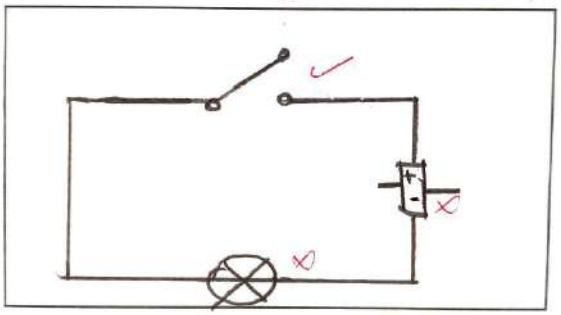
Partially correct responses:

a) In the box below draw a circuit using all the three components above.



(3 marks)

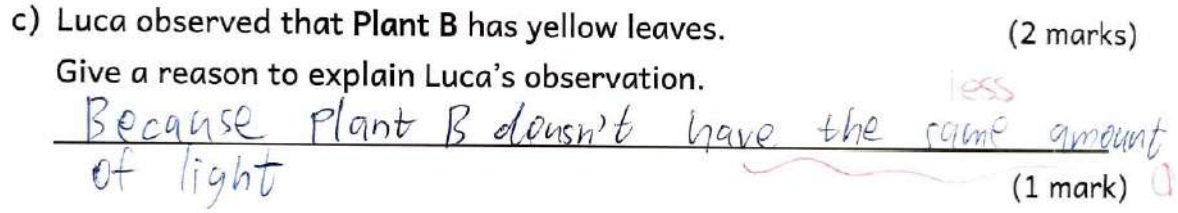
a) In the box below draw a circuit using all the three components above.



(3 marks)

Question 9: Students generally demonstrated good knowledge of plant-related concepts and photosynthesis. Some students showed difficulty distinguishing between a variable and a constant within an investigation. As for part (c), some students attributed the yellowing of plant leaves to a lack of water rather than a lack of sunlight, or were not specific in their response. In addition, the scientific term "photosynthesis" was frequently misspelt, indicating a need for more regular practice writing and using this key term.

Incorrect response:



4. Tips for students – Science exam skills

The Primary Science exam requires students to exhibit a range of skills and competences that have been nurtured/developed throughout the scholastic year/s. Below are a few tips that students may find useful when preparing for the Primary Science exam.

4.1 General exam technique

Students are encouraged to:
a) Answer in non-erasable ink (preferably blue ink).
b) Write legibly. Illegible writing cannot be awarded any marks.
c) Answer in English or Maltese.
d) Use a ruler for underlining and/or drawing specific diagrams or graphs.
e) Read the exam question carefully to fully understand what is required.
f) Identify the topic/s tested by looking for keywords or clues from diagrams, tables, pictures to identify the concepts being tested.
g) Eliminate the incorrect statements to derive the correct statement/s when tackling multiple choice questions.
h) Respond with a sentence/phrase that is short, simple and to the point, for open-ended questions.
i) Support answers with data or information elicited from the exam question.
j) Be familiar and recall scientific technical words/ terms/ key knowledge particularly when answering open-ended questions.
k) Read through the questions once more and check their work once they have finished the entire paper.

4.2 Common areas to address, based on the findings in this report

The following tips address specific patterns identified across the Year 4, Year 5 and Year 6 papers this year, and are worth particular emphasis in class.

a) **Name a specific example rather than describing a concept in general terms.** In Year 4 Question 6, when asked to give one example of how friction can help us, several

students wrote vague descriptions such as "friction can help us drive" instead of naming a specific situation (e.g. friction helping us catch a ball). Similarly, in Year 6 Question 1, when asked to name a streamlined object, some students described the concept ("smooth and curved") instead of naming an actual object.

b) **Use the exact scientific vocabulary the question asks for.** In Year 4 Question 7, many students misused the terms "predator" and "prey" when explaining an incorrect food chain. In Year 5 Question 7, a number of students selected "probiotic" instead of "fermentation" when asked about the process that makes dough rise. Students should practise using topic-specific keywords accurately rather than substituting an everyday or approximate term.

c) **Link explanations to the specific object or structure named in the question.** In Year 5 Question 2, some students explained that "part A protects the important organs" without specifying which organs, or gave the same explanation for both part A and part B rather than distinguishing between them. In Year 6 Question 4, several students explained why the word "POLICE" appears reversed without mentioning the word "mirror" at all. Answers should refer explicitly to the object, organ or structure the question is asking about.

d) **When describing a graph or set of data, describe the trend, not just a total or single figure.** In Year 6 Question 3, when asked to describe the pattern in sardine catches over several years, many students added up the totals rather than describing that the numbers were decreasing. Students should practise using language such as "increases," "decreases" or "stays the same over time" when interpreting data.

e) **Take care to distinguish between physical and chemical changes, and check the spelling of key scientific terms.** In Year 6 Question 2, a very high proportion of students classified changes of state (such as melting or freezing) as chemical changes rather than physical changes. In Year 6 Question 9, the term "photosynthesis" was frequently misspelt. Students should be encouraged to learn and practise writing key scientific terms correctly.

f) **Read carefully to identify exactly what is being asked** — for example, a cause versus an effect, a variable versus a constant, or energy input versus energy output. In Year 5 Question 5, several students confused the energy needed to make an appliance work with the energy it produces. In Year 6 Question 9, students showed difficulty distinguishing between a variable and a constant in an investigation. In Year 5 Question 4, several students gave general environmental reasons (such as overfishing or deforestation) that did not apply to the specific context of the freshwater crab. Students should pause to check which part of a process or relationship the question is actually asking about before answering.

4. Links for further resources

- Recorded Lessons on Eskola – Link
- Teacher's and Student's Resource Packs – Year 4 - Year 5 – Year 6
- Xjentifikwizz – Link to quizzes
- Link to Primary Science annual past papers and sample papers - https://curriculum.gov.mt
- Further information on the TIMSS 2019 Malta Report.
- Link to Primary Science TIMSS released items – Primary Science Resource Pack.
- Further information on Primary Science may be accessed through the following website https://primaryscience.skola.edu.mt/