

4

SCIENCE

SAMPLE RESPONSES



Sunbirds

This booklet is designed to help teachers make overall, on-balance judgments by providing examples of student responses. The responses are not an exhaustive set.

C samples

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C Sample: Response 1

Guide to making judgments — Year 4 Science

Student

Knowledge and understanding

Investigating

[Q 2–7]

Correct interpretation of thermometers and graphs to identify warm months and dry months.

Investigating

[Q 8–10]

Seasonal information is correctly transferred. When interpreting seasonal data the response considers some appropriate information, i.e. “warm months” but does not consider “late in the dry season”. It may be too late to finish building the cat run in the same month the sunbirds may return, therefore the answer in Q 10 is not correct based on the explanation provided.

Investigating

[Q 11–13]

Investigates information to identify correct number of days, but explanation does not support finding. Responses in Q 12 and 13 reflect partial investigation of information available.

Communicating

[Q 1, 2, 9–13]

Communicates using some scientific terminology and adds new vocabulary (protects). Descriptions and explanations can be understood.

Overall grade

The purpose of this QCAT is for students to explain sunbird behaviour based on information and evidence. This student's work demonstrates a high level of knowledge and understanding when investigating seasonal data, and a sound level when explaining sunbird behaviour based on seasonal information and evidence. On balance, this work is an overall C.

C Sample: Response 1

Sunbirds

Look at the picture below.

1. Describe the sunbird in detail.

Include as many body features as you can.



This picture shows the actual size of the sunbird.

Body features

Example: tail feathers — thin, dark feathers with white edges

Big black eye's.

Long curved beak.

Black, yellow and brown feathers.

Black feet.

10 cm long and 3 cm tall.

STOP HERE: WAIT FOR YOUR TEACHER'S DIRECTIONS

C Sample: Response 1

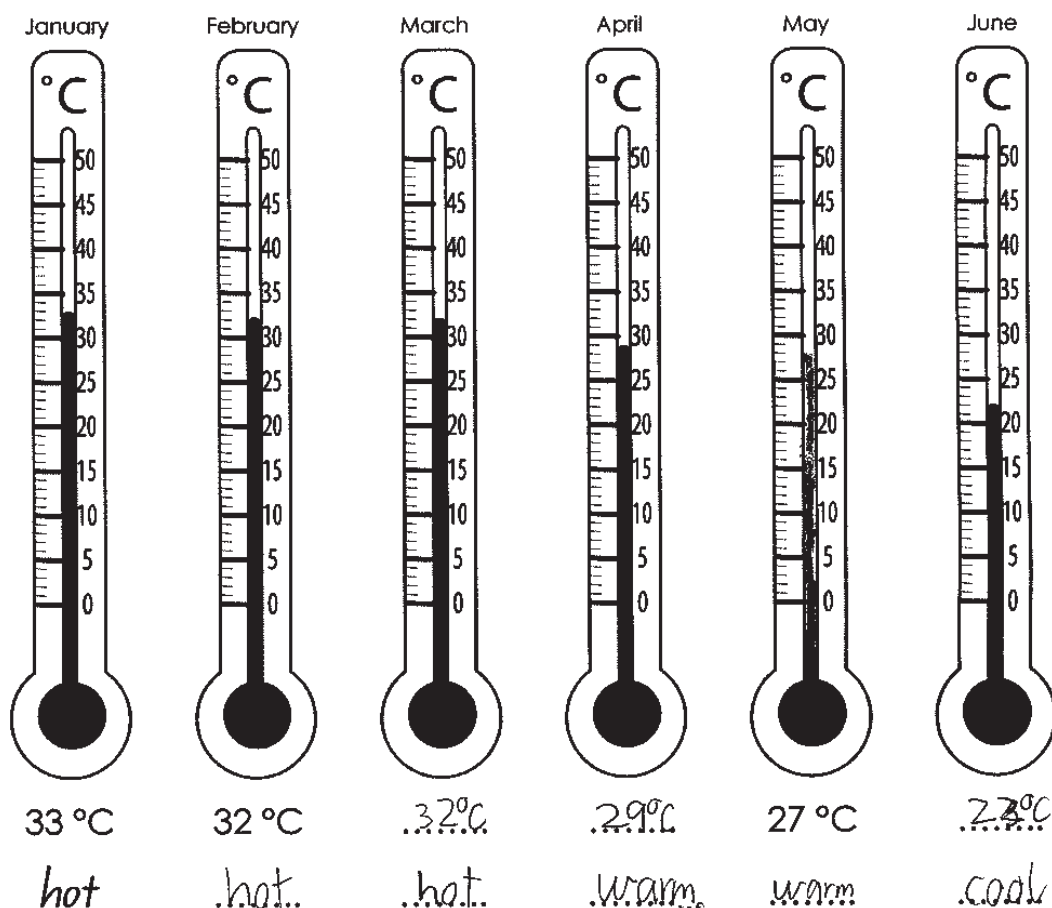
Temperature and rainfall

You are now going to identify the months that are both warm and dry.

The thermometers in Diagram 1 will help you identify the warm months for Sam's area.

2. Read the temperature shown on the thermometers for March, April, June, July and October in Diagram 1. Write the temperature under these thermometers.

Diagram 1: Highest daily temperature for each month in Sam's area



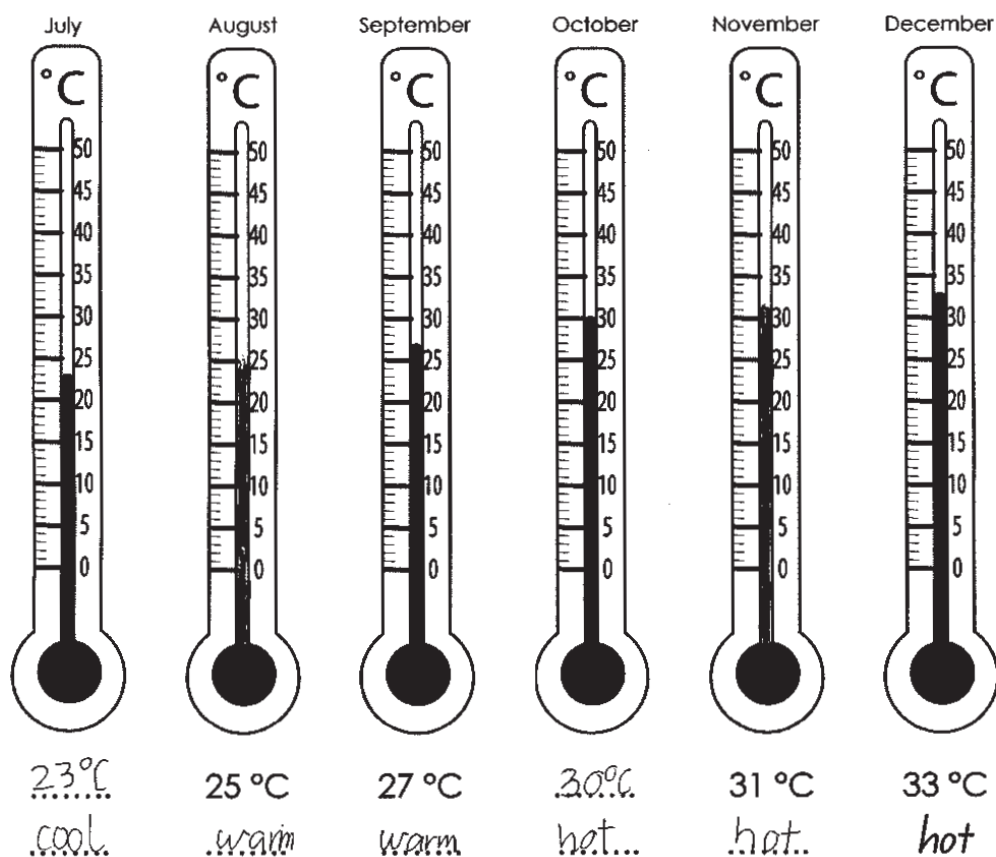
3. Shade the thermometers to show the temperature for May, August and November.

C Sample: Response 1

4. Write which months are hot or warm or cool under each thermometer. Use the information from Table 1.

Table 1

Highest daily temperature	Description
30 °C and above	hot
25 °C, 26 °C, 27 °C, 28 °C, 29 °C	warm
24 °C and below	cool



5. The warm months in Sam's area are: April, May, August, September

STOP HERE: WAIT FOR YOUR TEACHER'S DIRECTIONS

C Sample: Response 1

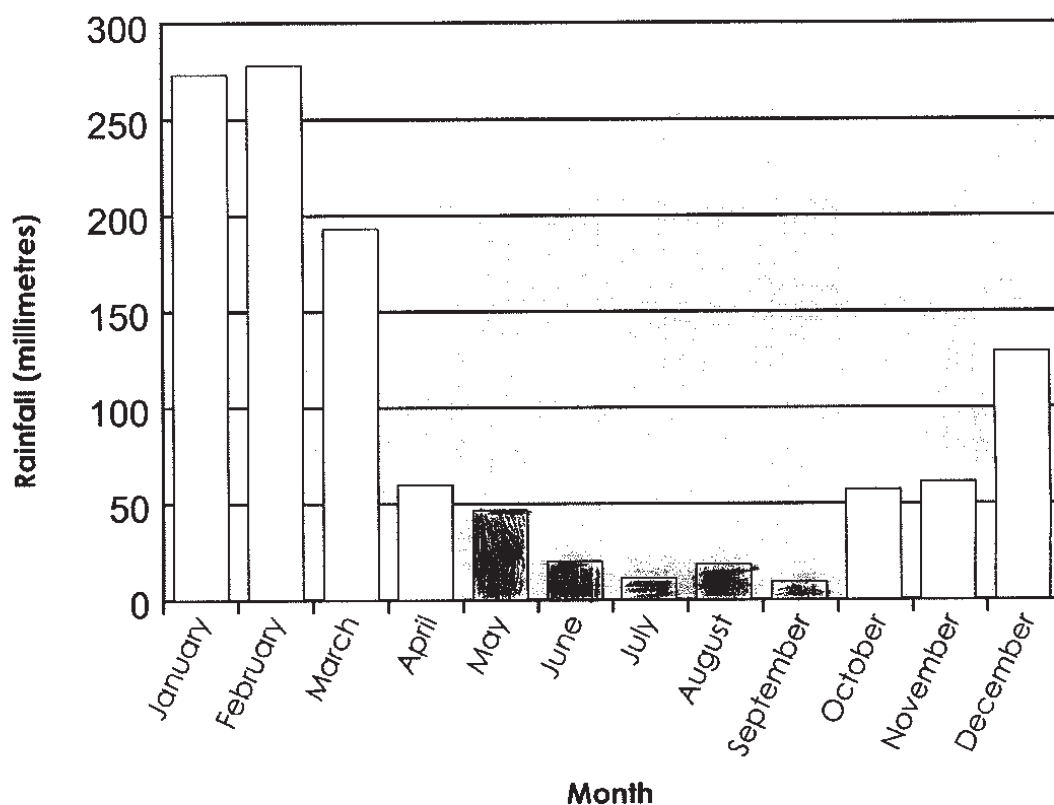
To find out the earliest month that the sunbirds could return, you need to identify the dry months.

6. Shade the bars of the dry months in Diagram 2.



- A dry month has less than 50 millimetres of rain.
- A wet month has 50 millimetres or more of rain.

Diagram 2: Monthly rainfall in Sam's area



C Sample: Response 1

7. Complete the following sentences. Use the information from Diagram 2.

In Sam's area the months in the dry season are ...*May, June*
July, August, September.....

The wet season starts in
and finishes in

STOP HERE: WAIT FOR YOUR TEACHER'S DIRECTIONS

C Sample: Response 1

The warm, dry months

To find out which is the earliest month that the sunbirds could return, you now need to identify the months that are both warm and dry.

8. Work out which months are both warm and dry by completing Table 2.

January has been done for you.

Write **hot** or **warm** or **cool** for each month. Refer to your answers on pages 6 and 7.

Write **wet** or **dry** for each month. Refer to your answer on page 9.

Tick ✓ the months that are **both** warm and dry.

Table 2

Month	Temperature	Rainfall	Warm and dry months
January	hot	wet	
February	hot	wet	
March	hot	wet	
April	warm	wet	
May	warm	dry	✓
June	cool	dry	
July	cool	dry	
August	warm	dry	✓
September	warm	dry	✓
October	hot	wet	
November	hot	wet	
December	hot	wet	

C Sample: Response 1

Use the information on page 10 to help you complete the following questions.

9. What is the earliest month the sunbirds could return?



The sunbirds return to nest in the warm months late in the dry season.

Month: May

Give all the reasons why you chose this month as the earliest month. Because you choose out of May, August, or september and may is first

.....

.....

.....

.....

.....

10. To keep the sunbirds safe, what is the latest month Sam and his dad must finish building the cat run?

Month: May

Why did you choose this month? Because I think it's best to be ready.

.....

.....

STOP HERE: WAIT FOR YOUR TEACHER'S DIRECTIONS

11

C Sample: Response 1

Use the webpage to help you answer these questions.

11. For how many days can Sam's friends come to see the chicks in the nest?

About ...15..... days

Explain: That is what it says on the web page.

12. Explain how a sunbird nest helps to keep the chicks safe.

It protects the chicks and keeps them hidden.
The colour of nest.



The pictures may help you with ideas.

13. List the things sunbirds might look for when they are searching for a place to build their nests.

A high place where they would be safe.

C Sample: Response 2

Overall grade

This student's work demonstrates a high level of knowledge and understanding when investigating seasonal data, and a sound level when explaining sunbird behaviour based on seasonal information and evidence. Considering the purpose of the task, on balance, this work is an overall C.

Guide to making judgments — Year 4 Science

Student

Purpose: To explain sunbird behaviour based on information and evidence.

Knowledge and understanding Investigating [Q 2–7]

Correct interpretation of thermometers and graphs to identify warm months and dry months.

Investigating [Q 8–10]

Correctly transfers seasonal information. Has considered “warm months” and not considered “late in the dry season” when identifying earliest month.

Investigating [Q 11–13]

Investigates information to identify correct number of days, but explanation does not support finding. Responses in Q 12 and 13 reflect partial investigation of information available. In Q 12 the response should include an explanation of how the nest protects the chicks from predators.

Communicating [Q 1, 2, 9–13]

Communicates using some scientific terminology but also adds new vocabulary (protects, predators). Descriptions and explanations are brief but can be understood.

A	B	C	D	E
Identifies some warm months and some dry months.	Identifies some warm months and some dry months.	Identifies some warm months and some dry months.	Identifies some warm months and some dry months.	Identifies some warm months and some dry months.
Correctly interprets some information from thermometers and graphs.	Correctly interprets some information from thermometers and graphs.	Correctly interprets some information from thermometers and graphs.	Correctly interprets some information from thermometers and graphs.	Correctly interprets some information from thermometers and graphs.
Considers only part of the seasonal data when justifying the choice of month that sunbirds could return.	Considers only part of the seasonal data when justifying the choice of month that sunbirds could return.	Considers only part of the seasonal data when justifying the choice of month that sunbirds could return.	Considers only part of the seasonal data when justifying the choice of month that sunbirds could return.	Considers only part of the seasonal data when justifying the choice of month that sunbirds could return.
Selects appropriate information and draws reasonable conclusions.	Selects appropriate information and draws reasonable conclusions.	Selects appropriate information and draws reasonable conclusions.	Selects appropriate information and draws reasonable conclusions.	Selects appropriate information and draws reasonable conclusions.
Identifies some information that limits the scope of conclusions.	Identifies some information that limits the scope of conclusions.	Identifies some information that limits the scope of conclusions.	Identifies some information that limits the scope of conclusions.	Identifies some information that limits the scope of conclusions.
Selects irrelevant information.	Selects irrelevant information.	Selects irrelevant information.	Selects irrelevant information.	Selects irrelevant information.
Uses appropriate scientific terminology in descriptions and explanations.	Uses appropriate scientific terminology in descriptions and explanations.	Uses appropriate scientific terminology in descriptions and explanations.	Uses appropriate scientific terminology in descriptions and explanations.	Uses appropriate scientific terminology in descriptions and explanations.
Uses some scientific terminology when trying to describe and explain ideas.	Uses some scientific terminology when trying to describe and explain ideas.	Uses some scientific terminology when trying to describe and explain ideas.	Uses some scientific terminology when trying to describe and explain ideas.	Uses some scientific terminology when trying to describe and explain ideas.

Feedback

C Sample: Response 2

Sunbirds

Look at the picture below.

1. Describe the sunbird in detail.

Include as many body features as you can.



This picture shows the actual size of the sunbird.

Body features

Example: tail feathers — thin, dark feathers with white edges
 beak — long, green and curved
 wings — pointy and grey with yellow streaks
 eyes

STOP HERE: WAIT FOR YOUR TEACHER'S DIRECTIONS

C Sample: Response 2

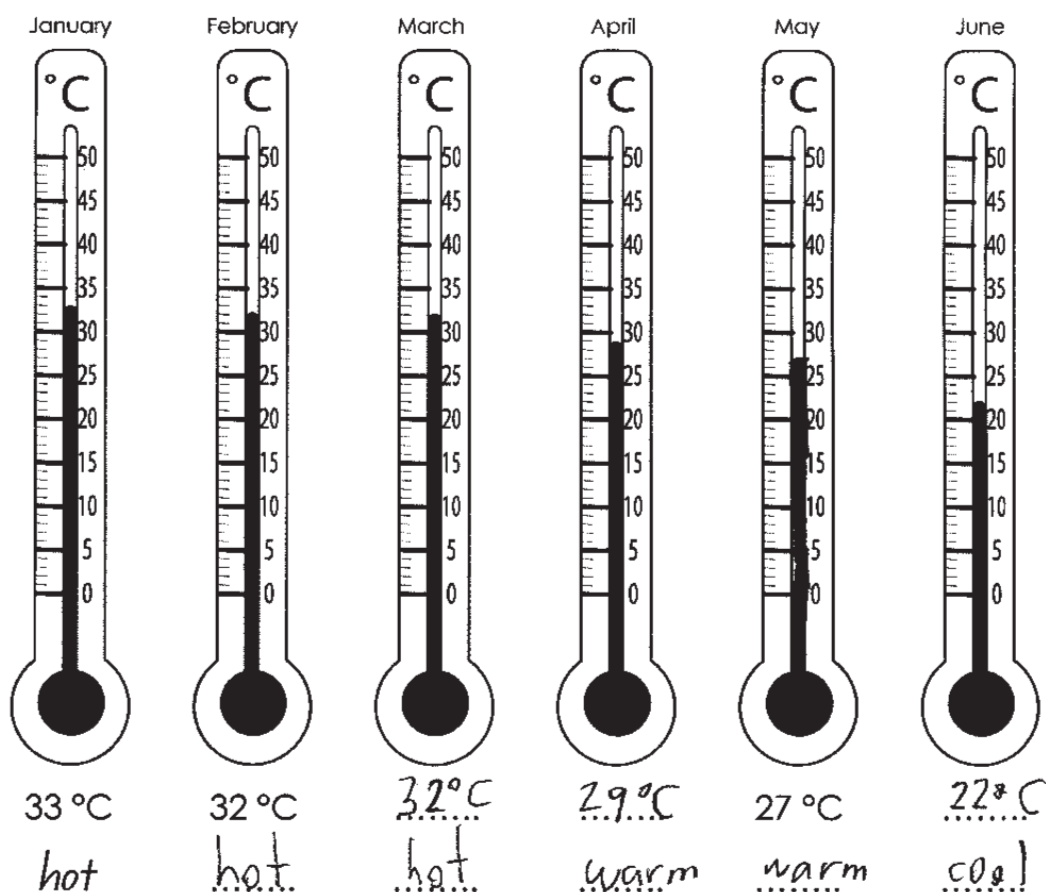
Temperature and rainfall

You are now going to identify the months that are both warm and dry.

The thermometers in Diagram 1 will help you identify the warm months for Sam's area.

- Read the temperature shown on the thermometers for March, April, June, July and October in Diagram 1. Write the temperature under these thermometers.

Diagram 1: Highest daily temperature for each month in Sam's area



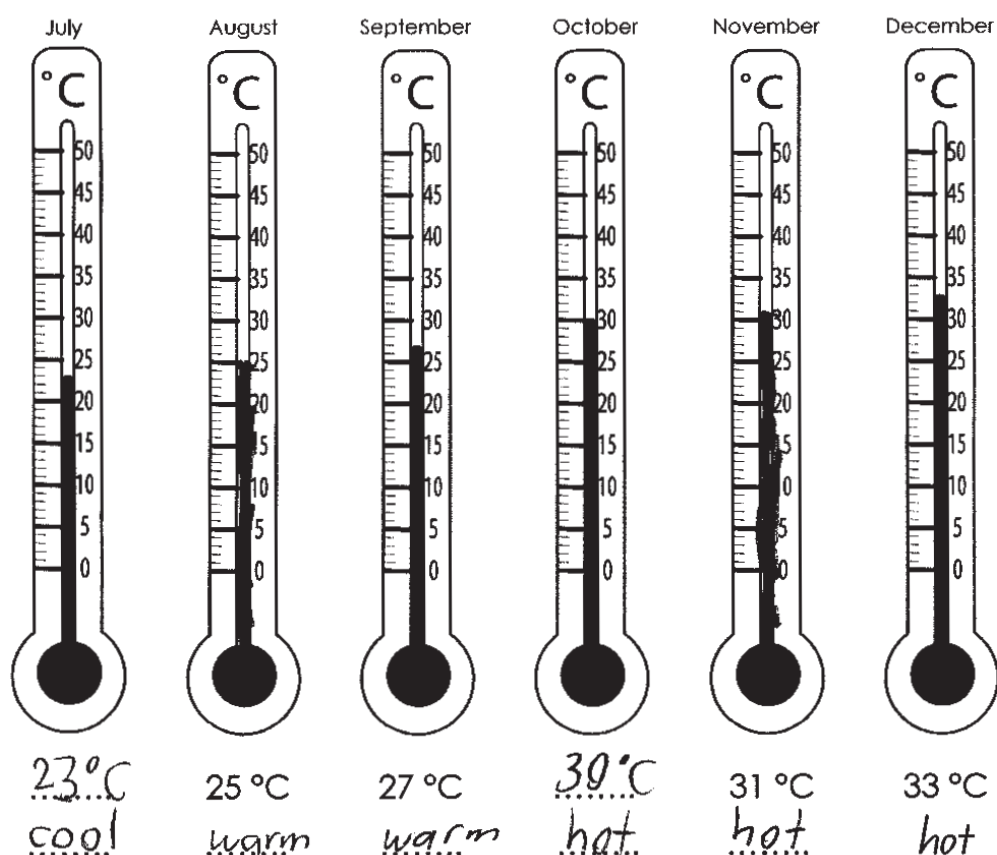
- Shade the thermometers to show the temperature for May, August and November.

C Sample: Response 2

4. Write which months are hot or warm or cool under each thermometer. Use the information from Table 1.

Table 1

Highest daily temperature	Description
30 °C and above	hot
25 °C, 26 °C, 27 °C, 28 °C, 29 °C	warm
24 °C and below	cool



5. The warm months in Sam's area are: April, May, August, September

STOP HERE: WAIT FOR YOUR TEACHER'S DIRECTIONS

C Sample: Response 2

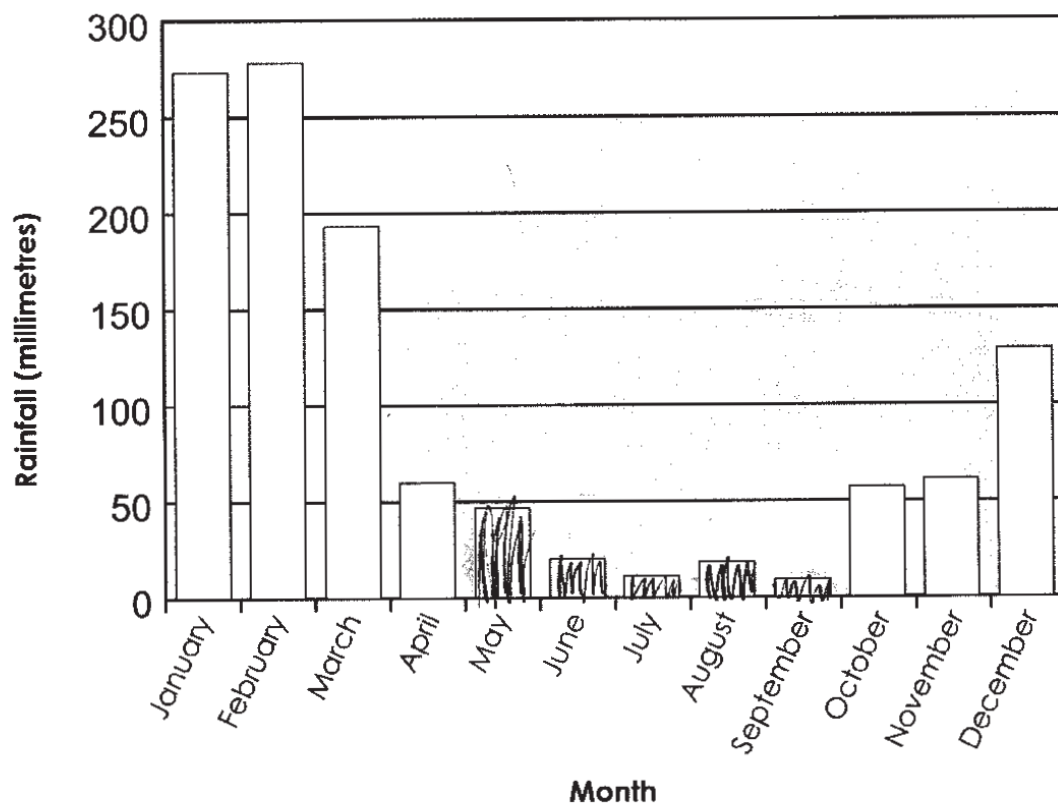
To find out the earliest month that the sunbirds could return, you need to identify the dry months.

6. Shade the bars of the dry months in Diagram 2.



- A dry month has less than 50 millimetres of rain.
- A wet month has 50 millimetres or more of rain.

Diagram 2: Monthly rainfall in Sam's area



C Sample: Response 2

7. Complete the following sentences. Use the information from Diagram 2.

In Sam's area the months in the dry season are *May*.....
June, July, August, September.....

The wet season starts in *October*.....
and finishes in *April*.....

STOP HERE: WAIT FOR YOUR TEACHER'S DIRECTIONS

C Sample: Response 2

The warm, dry months

To find out which is the earliest month that the sunbirds could return, you now need to identify the months that are both warm and dry.

8. **Work out which months are both warm and dry by completing Table 2.**

January has been done for you.

Write **hot** or **warm** or **cool** for each month.
Refer to your answers on pages 6 and 7.

Write **wet** or **dry** for each month.
Refer to your answer on page 9.

Tick ✓ the months that are **both** warm and dry.

Table 2

Month	Temperature	Rainfall	Warm and dry months
January	hot	wet	
February	hot	wet	
March	hot	wet	
April	warm	wet	
May	warm	dry	✓
June	cool	dry	
July	cool	dry	
August	warm	dry	✓
September	warm	dry	✓
October	hot	wet	
November	hot	wet	
December	hot	wet	

C Sample: Response 2

Use the information on page 10 to help you complete the following questions.

9. What is the earliest month the sunbirds could return?



The sunbirds return to nest in the warm months late in the dry season.

Month: May

Give all the reasons why you chose this month as the earliest month. Because the warm and dry months are May, August and September and the first month is May!

10. To keep the sunbirds safe, what is the latest month Sam and his dad must finish building the cat run?

Month: August

Why did you choose this month? Well September is too late and August is late as well.

STOP HERE: WAIT FOR YOUR TEACHER'S DIRECTIONS

C Sample: Response 2

Use the webpage to help you answer these questions.

11. For how many days can Sam's friends come to see the chicks in the nest?

About 15 days

Explain: That's how long the birds
feed before flying away.

12. Explain how a sunbird nest helps to keep the chicks safe.

It protects them
from predators.



The pictures may help you with ideas.

13. List the things sunbirds might look for when they are searching for a place to build their nests.

Dry twigs, Grass, Leaves, Sticks,
Spider-web