

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.

A samples

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A Sample: Response 1

Guide to making judgments — Year 4 Science

Student

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

Knowledge and understanding Investigating	Investigating	Investigating	Communicating
Identifies seasonal data by reading and interpreting information from thermometers and rainfall graphs. Q 2-7	Collects and uses relevant data to identify and justify the month when the sunbirds could return and the month the cat run must be finished. Q 8-10	Identifies information and evidence to give explanations of sunbird nesting behaviour. Q 11-13	Uses scientific terminology to describe and explain ideas and information. Q 1, 2, 9-13
<p>Correctly interprets thermometers and graphs to identify warm months, dry months and wet season.</p> <p>Correctly interprets thermometers and graphs to identify warm months and dry months.</p>	<p>Identifies correct months with justifiable explanations drawn from data and earlier answers.</p>	<p>Accurately identifies information and draws valid conclusions using supplied information.</p>	<p>Uses scientific terminology in clearly articulated descriptions and explanations.</p>
<p>Knowledge and understanding Investigating Correct interpretation of thermometers and graphs to identify warm months, with partial identification of wet season.</p>	<p>Investigating Identifies correct months with clear, logical explanations in Q 9 and 10.</p>	<p>Investigating Accurately identifies information and draws a valid conclusion from webpage information.</p>	<p>Communicating Identifies and describes a range of body features using age-appropriate scientific terminology. Explanations in Q 11 to 13 are articulated using appropriate terminology.</p>

Feedback

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 very high level of knowledge and understanding, investigating, and communicating to explain sunbird behaviour based on information and evidence. On balance, this work is an overall A.

A 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

Beak — long, sharp and pointy

legs — short, thin

wings — dark, small

body — small, yellow

neck — curved, dark

claws — sharp

STOP HERE: WAIT FOR YOUR TEACHER'S DIRECTIONS

A Sample: Response 1

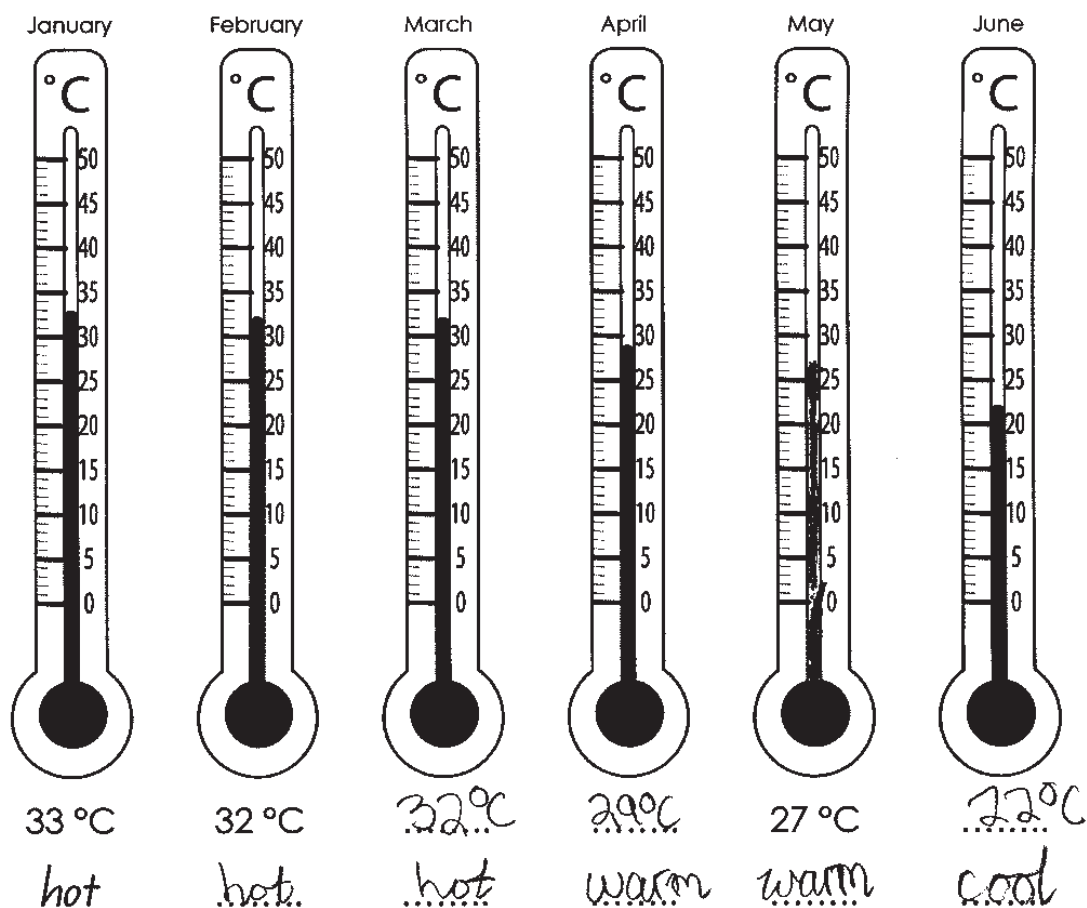
Temperature and rainfall

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



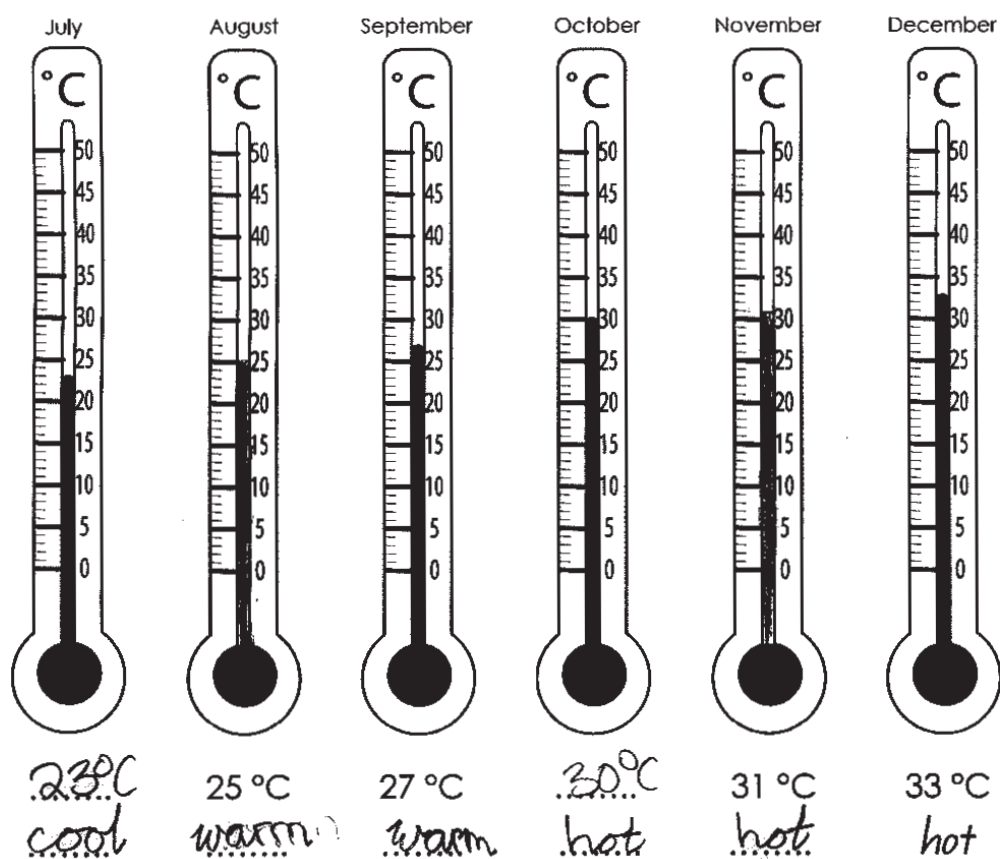
3. Shade the thermometers to show the temperature for May, August and November.

A 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

A Sample: Response 1

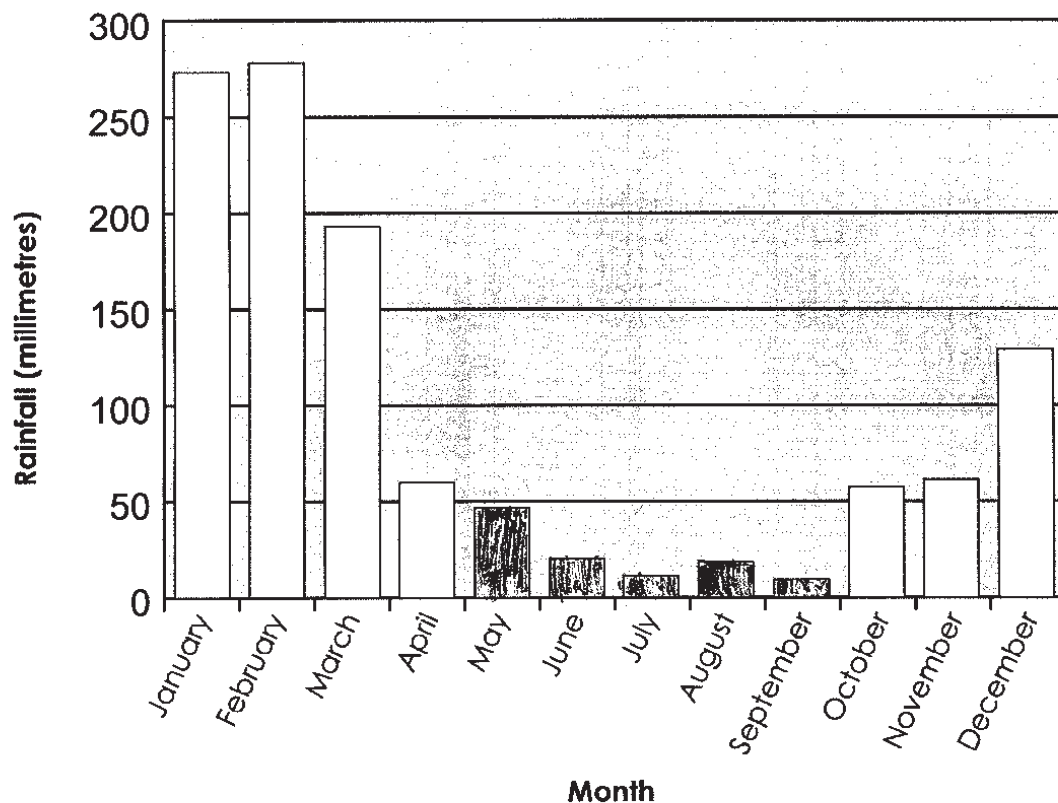
To find out the earliest month that the sunbirds could return, you need to identify the dry months.

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



A 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 October.....
and finishes in

STOP HERE: WAIT FOR YOUR TEACHER'S DIRECTIONS

A 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	

A 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: August

Give all the reasons why you chose this month as the earliest month. I chose August because it

is late in the dry season and

It is warm and dry.

.....

.....

.....

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

Month: July

Why did you choose this month? I chose July

because it is the month before

August.

.....

STOP HERE: WAIT FOR YOUR TEACHER'S DIRECTIONS

11

A 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: The page next to this page said the mother feeds them for about 15 days.

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

The nest is safe for the chicks because it isn't easy to get into. The nest hangs high.



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.

They could look for things to build their nest such as dry twigs, leaves, sticks, grass, and spider web.

A Sample: Response 2

Guide to making judgments — Year 4 Science

Student

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<p>Correctly interprets thermometers and graphs to identify warm months, dry months and wet season.</p> <p>Correctly interprets thermometers</p>	<p>Identifies correct months with justifiable explanations drawn from data and earlier answers.</p>	<p>Accurately identifies information and draws valid conclusions using supplied information.</p>	<p>Uses scientific terminology in clearly articulated descriptions and explanations.</p>
<p>Knowledge and understanding Investigating Correct interpretation of thermometers and graphs to identify warm months, dry months and wet season.</p>	<p>Investigating Identifies correct months with logical explanations in Q 9 and 10.</p>	<p>Investigating Accurately identifies information and draws a valid conclusion from webpage information.</p>	<p>Communicating Identifies and describes a range of body features using age-appropriate scientific terminology. Explanations in Q 11 to 13 are articulated using appropriate terminology.</p>

Feedback

Overall grade

This student's work demonstrates a very high level of knowledge and understanding, investigating, and communicating to explain sunbird behaviour based on information and evidence. On balance, this work is an overall A.

A 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, sharp black

feet — sharp black feet

wings — thin brown and yellow

feathers — yellow brown black

eyes — beady black eyes

STOP HERE: WAIT FOR YOUR TEACHER'S DIRECTIONS

A Sample: Response 2

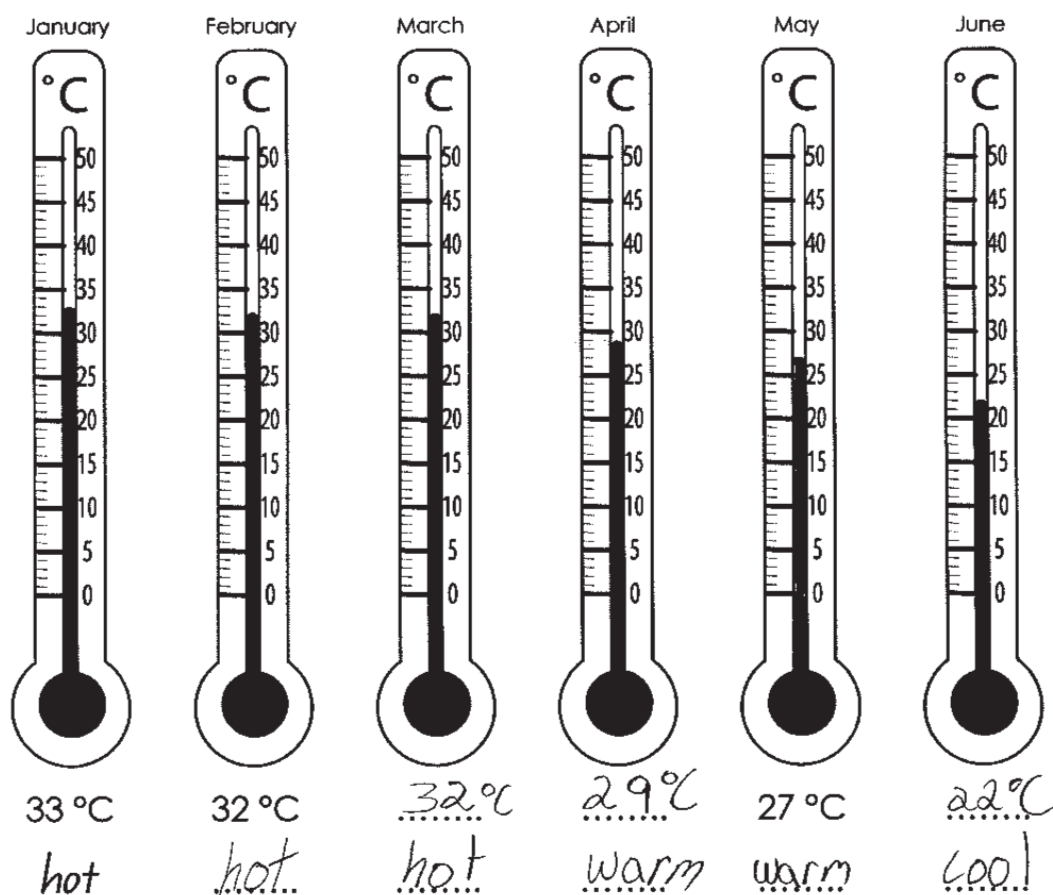
Temperature and rainfall

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.

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



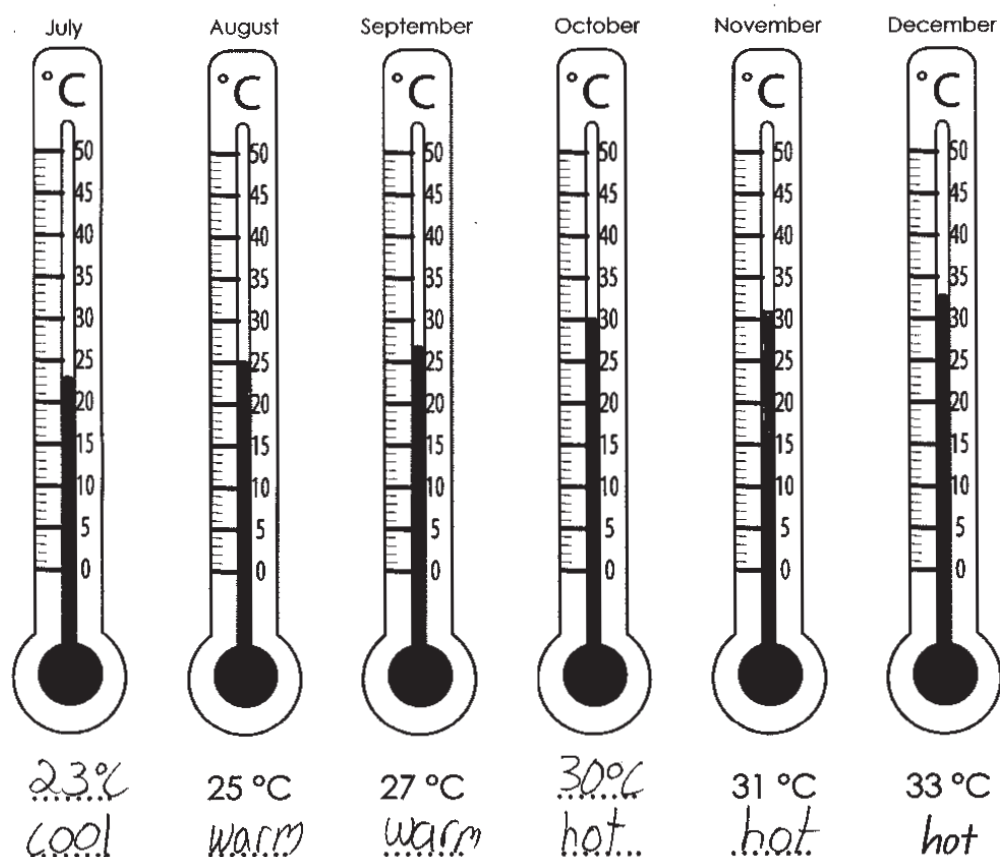
3. Shade the thermometers to show the temperature for May, August and November.

A 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

A Sample: Response 2

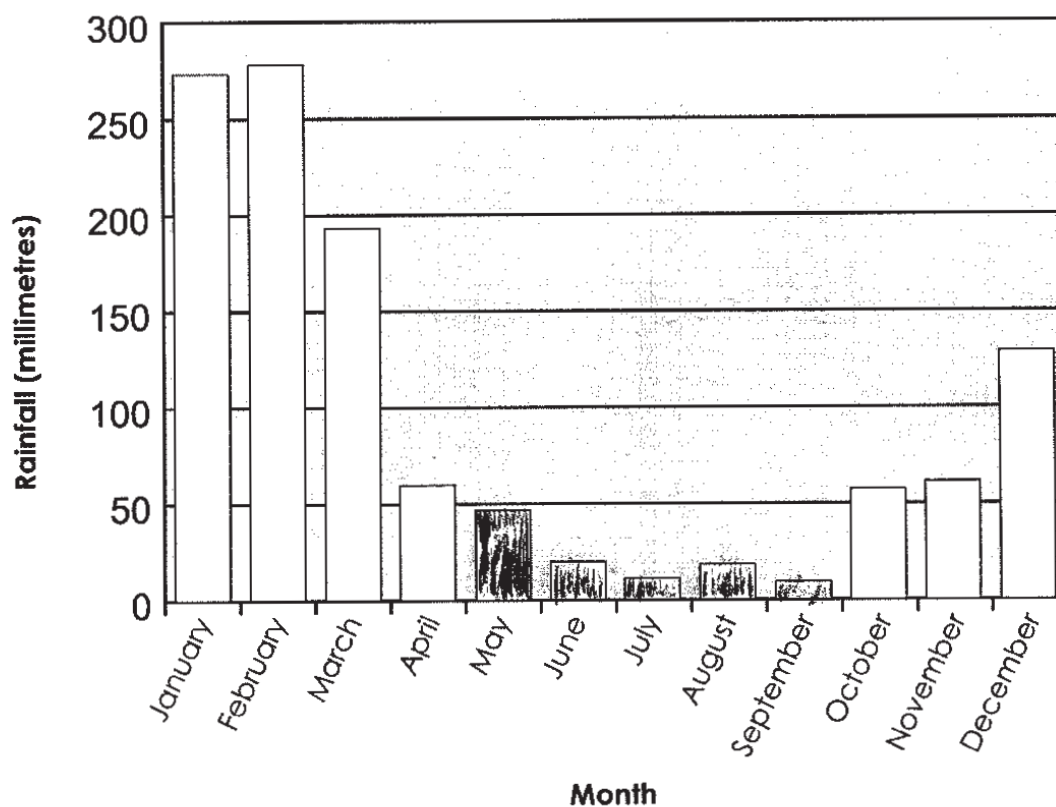
To find out the earliest month that the sunbirds could return, you need to identify the dry months.

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



A 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

A 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.

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Table 2

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May	warm	dry	✓
June	cool	dry	
July	cool	dry	
August	warm	dry	✓
September	warm	dry	✓
October	hot	wet	
November	hot	wet	
December	hot	wet	

A 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: August

Give all the reasons why you chose this month as the earliest month. because this month is the earliest month that they could lay eggs. And it is late in the dry season.

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

Month: July

Why did you choose this month? because it isn't dry and warm and it is the latest the cat run can be finished.

STOP HERE: WAIT FOR YOUR TEACHER'S DIRECTIONS

11

A 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: because the mother sunbird
feeds the chicks for fifteen
days.

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

It's not easy for
other animals to
get into the nest.



The pictures may help you with ideas.

Also it's up high so most animals
can't get to it.

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

They build their nest with dry
twigs, grass, leaves sticks and
spider web.