

JAMAICA

SAMPLE

PEEP

Mathematics

Performance Task

Practice Papers

GRADE

4

Contents

How to use this book	4
Practice paper 1: At the library.....	5
<i>Key strands: Measurement, Geometry, Number, Statistics</i>	
Practice paper 2: Growing vegetables.....	23
<i>Key strands: Geometry, Measurement, Number</i>	
Practice paper 3: Sports and games.....	31
<i>Key strands: Number, Measurement, Statistics, Geometry</i>	
Practice paper 4: Screens and things.....	40
<i>Key strands: Statistics, Number, Measurement</i>	
Practice paper 5: Finding out about fish.....	53
<i>Key strands: Statistics, Number, Measurement, Geometry</i>	
Practice paper 6: Making pancakes and muffins	60
<i>Key strands: Statistics, Number, Measurement, Geometry</i>	
Practice paper 7: A school weather station.....	68
<i>Key strands: Measurement, Geometry, Statistics, Number</i>	
Practice paper 8: At the market.....	76
<i>Key strands: Statistics, Number, Measurement</i>	
Practice paper 9: Arts and crafts	87
<i>Key strands: Number, Geometry, Measurement</i>	
Practice paper 10: A new play area	96
<i>Key strands: Geometry, Measurement, Number, Statistics</i>	

How to use this book

Think about successful athletes. Athletes learn about their sport, and they practise and train hard to become excellent performers.

You can be a maths athlete who performs well in tasks by learning how to do them and then training yourself to answer different types of questions.

You are going to work through **Practice paper 1** with your teacher. This will help you to:

- Read questions carefully and work out what type of answer to give.
- Understand why it is important to show how you work out your answer.
- Learn how you can get good results even if your answer is not completely correct.
- Understand what the different ratings mean and see how you can improve your rating.
- Reflect on your own work to help you see what you did well and what you can improve in the next task.

Each task in this book has three supporting features.

Before you start ...

This section helps you think carefully about questions and what it is you are being asked to do. There are different activities for each task.

Hints

These are given in the task itself to help you think about the questions and how you should answer them. As you progress, there will be fewer hints in the tasks.

Reflection

This section encourages you to think about your own learning and how you can improve on it.

Practice paper 1 also has a section called **How do you know how well you did?**

In this section you will see possible answers to the questions and what rating they were given. The aim of this section is to show you what you need to do to get the best possible results.

Practice paper 1

Always check that you have everything you need before you start.

When you do a performance task, it is useful to read through the questions first so you have an idea of what you will need to do.

This task has 3 parts:

- Part 1 has questions 1 and 2.
- Part 2 has question 3.
- Part 3 has questions 4 and 5.

You will need a calculator, a pencil and an eraser.

Answer all the questions in each part in the spaces provided.

Remember to always show your working out.

→ Before you start ...

Start by **skim reading** all the questions. **Circle** or highlight any **instruction words**.

Now, **draw a *** next to questions that look like they have only one short answer.

Next **look at the underlined instructions** in the task.

What do you have to do when you answer these questions? **Share your ideas** with your partner.

At the library

Verona and Sheldon are library monitors. They help in the library after school and at weekends.

Their duties include:

- Checking books in and out of the library.
- Helping people find what they need.
- Returning books to the correct shelves.
- Keeping shelves neat and tidy.
- Organising chairs, turning on computers and making sure people know how to use library technology.
- Ensuring people follow the library rules, including no food or drink in the library.

Part 1

Going to the library

Question 1

This map shows the area around Verona's house. You are going to use it to work out how she can get to the library.



Look at the map carefully. What does the key tell you?



1 cm = 40 m

- Verona is in front of her house. Find her on the map. Put a * next to her house.
- Find two different routes that Verona could take to get to the library. Show both routes clearly on the map. Use different colours or two different styles of lines.
- Approximately how far does Verona walk if she takes the shorter of the two routes? Explain how you worked this out.



Remember, the map scale tells you how far things are in the real world. You have to measure the map distance and use the scale to find the real distance.



How far will 200 m be on the map? How can that help you find Sheldon's house?

- d Sheldon lives approximately 200 m from the library. Which houses could be his? Mark them on the map. Explain how you decided which houses could be Sheldon's house.



When you are given information like this, you will need to use it to answer the questions.

Question 2

The library opening hours are:

Monday	10:00–17:00
Tuesday	09:00–18:00
Wednesday	10:00–17:00
Thursday	10:00–15:00
Friday	09:00–12:00, then 14:00–19:00
Saturday	09:00–15:00
Sunday	CLOSED



You need to work with the times and the days given to find the answers to these questions. Draw a number line to help you count hours if you need to.

- a Complete each sentence by filling in the correct day of the week:

- The library stays open for the longest time on a _____.
- The library is open for 5 hours on a _____.
- The latest the library stays open is on _____.
- The library closes for a 2-hour lunch break on a _____.

- b Verona takes 25 minutes to walk to the library. What is the latest she can leave home to be at the library at opening time on a Tuesday?



What time does the library open on a Tuesday? Find that information before you answer the question.

Part 2

Taking out and returning books

Question 3

Sheldon made this sign for the library desk.



Read the information carefully. Highlight the important number facts. You will need these to answer the questions.

Junior members (under 15)

You may borrow 1 book at a time.

Books are due to be returned 2 weeks after they are taken out.

Please return the book before or on the due date.

The fine for returning a book late is \$35.00 per week
(up to 3 weeks).

If the book is more than 3 weeks overdue or lost, the fine is \$750.



You know that there are 7 days in a week. You can work out the date one week later by adding 7 to the date you are given.

- a Marcia took out a book on 3rd May. What is the latest date she can return it without paying a fine?

Answer box for question a.



If the book is one week late, it means it was due one week before that. Think about how you can work out that date.

- b Janelle returned her book on 23rd May. If the book was 1 week late, when was it due to be returned?

Answer box for question b.



What do you need to know before you can answer this question? Where will you get that information?

- c Jerome's book was due back on 1st May. He only returned it on 15th May. What fine would he have to pay?



How late was Marcus' book?

- d The librarian collected this data for books returned late in May.

Number of days late	Number of books
1–7 days	12
8–14 days	9
15–21 days	6
Over 21 days	3

- i. Which category had the most late books?

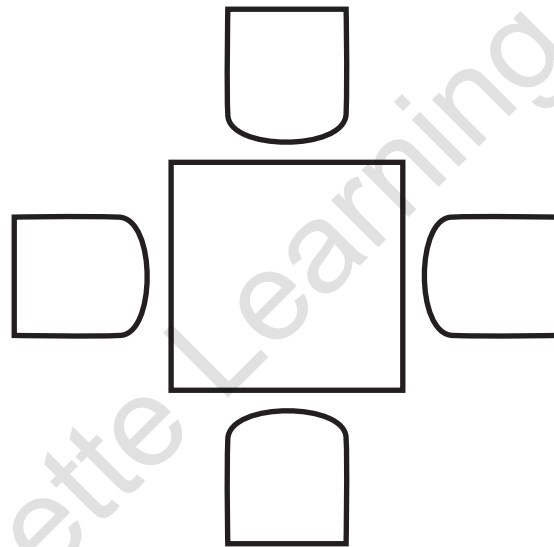
- ii. How many books were over a week late?

- iii. Estimate how much money was collected in fines in May.

Part 3**Using the computers at the library****Question 4**

The library loans out tablet computers for use inside the library. If you are under the age of 15, you may only use the tablet in the computer room where there is a library monitor or member of staff. Tablets may be borrowed for up to 3 hours per day.

The computer room has square tables. Each table can fit one chair on each side, like this:

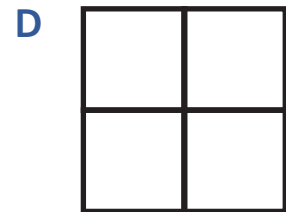


- a** The librarian arranges the tables so that students can work in groups.

For each of these arrangements of desks (in **A–D**), write how many chairs will be needed.



Draw a dot on the diagram to show each chair and then count them. Remember to write the answers as well.



What do you notice about the number of chairs in Group C and D? Can this help you work out the answer here?

Remember you can try out a few ideas before you decide which one is correct.

- b Which grouping of six desks will give the greatest number of chairs? Draw your idea here.

© Hachette Learning

Question 5

The library has these rules for using tablets:



Skim read the rules and remember you will need to find the information you need to answer the questions.

DESCRIPTION	FINES/COSTS
Fine for every 15 minutes or fraction thereof that the tablet is overdue. There is no maximum fine.	\$50
Lost or damaged power cord	Replacement cost: \$2 000
Lost or damaged accessories	Replacement cost: dependent on the cost to replace accessory
Damaged tablet	Repair cost: dependent on the cost to repair damage
Lost or stolen tablet. <i>(If the tablet is stolen, the borrower is responsible for submitting a police report to the Senior Librarian.)</i>	Replacement cost: \$50 000



How can you work out how long he had the tablet? Could a number line help you count up the time?

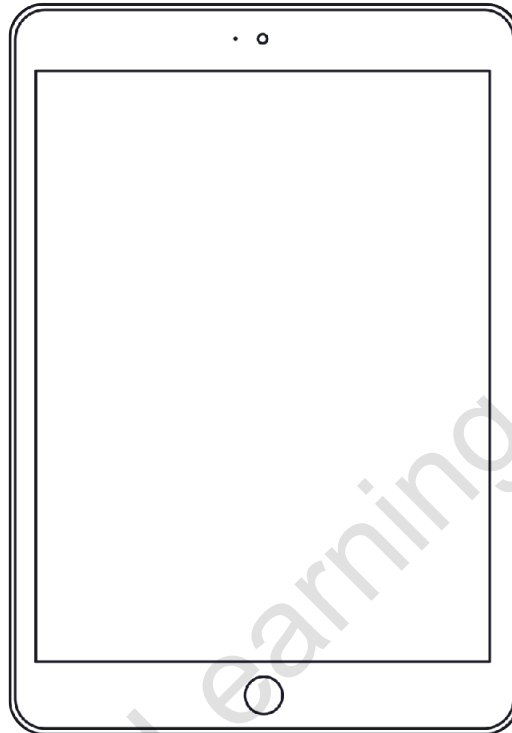
- a Samuel borrows a tablet at 12:25 p.m. He returns it at 3:40 p.m. without the power cord. What fine will he have to pay? Show how you work this out.



The question asks what you think, but it also asks why you think that. You will need to use the information in the table to work out what will happen.

- b Nadia accidentally knocked a tablet off the table and cracked the screen. She reports this to the librarian immediately. What do you think will happen next? Explain why.

- c This diagram shows one of the tablets.



How do you work out the perimeter of a rectangle?



Can you draw a model to help you work this out?

The rectangular screen has a perimeter of 210 cm. The length is 60 cm.

- a What is the width of the screen?

- b Mark the length and width on the diagram.

- c Explain how you worked it out.

Practice Paper 1 Self-evaluation

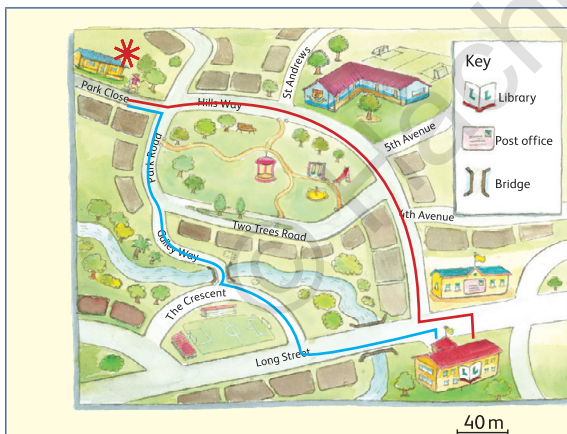
How do you know how well you did?

Now that you have worked through the task, you are going to look at some answers that students gave to see how they were rated. Then you can rate your own answers using this scale.

1 Beginning	2 Developing	3 Proficient	4 Highly proficient
Your answers tell the teacher that you do not understand the work and that you need a lot more support.	Your answers show that you understand some of the work but that you need help in some topics.	Your answers show that you understand most of the work.	Your answers show that you understand all of the work very well.

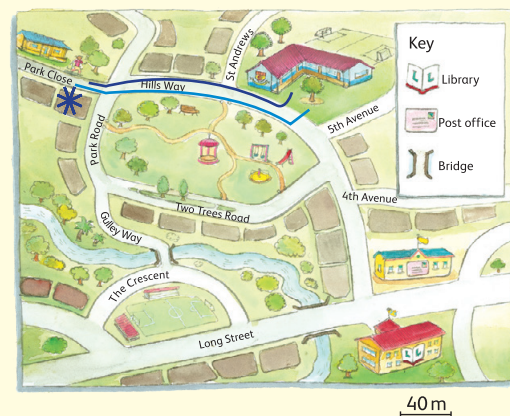
Question 1

- Verona is in front of her house. Find her on the map. Put a * next to her house.
- Find two different routes that Verona could take to get to the library. Show both routes clearly on the map. Use different colours or two different styles of lines.



4 Highly proficient

- The student has clearly marked Verona's house.
- They have also used two different colours to show clear routes from her house to the library.





2 Developing

- This student has marked a house and it is close to where the girl is standing, but it is across the road, so it is not the correct house.
- The student understood the instructions and has shown two clear routes. They did not read the map key properly, so they have not drawn routes to the library.

- c Approximately how far does Verona walk if she takes the shorter of the two routes? Explain how you worked this out.

<p>12 cm</p>	<p>She walks 650 m.</p> <p>I measured the route in centimetres and then multiplied my answer by 40 to get metres.</p>
<p>1 Beginning</p> <p>12 cm is not a sensible answer for real life distances. It shows the student does not understand measurements.</p> <p>Student has not used the scale and has not explained how they got to the answer.</p>	<p>3 Proficient</p> <p>The student answered the question and gave a reasonable distance. They did not show their working though.</p> <p>The student did explain clearly what they did to get to the answer.</p>

- d Sheldon lives approximately 200 m from the library. Which houses could be his? Mark them on the map. Explain how you decided which houses could be Sheldon's house.

 <p>40 m</p>	 <p>40 m</p>
<p>The star shows Sheldon's house.</p> <p>I worked out that</p> $200 \text{ m} \div 40 \text{ m} = 5 \text{ cm}$ <p>to get the distance on the map. Then I used a ruler to find a house that was 5 cm away from the library.</p>	<p>I measured 5 cm from the library to find his house.</p>
<p>4 Highly proficient</p> <p>This student has given a correct answer and explained clearly how they got to the answer using the scale and then measuring on the map.</p>	<p>3 Proficient</p> <p>This student has understood the task and used the scale, but has not explained how they knew they had to measure 5 cm. Also, the house they have chosen is only X cm from the library.</p>

Question 2

a Complete each sentence by filling in the correct day of the week.

<ul style="list-style-type: none"> • The library stays open for the longest time on a <i>Friday</i>. ✗ • The library is open for 5 hours on a <i>Friday</i>. ✗ • The latest the library stays open is on <i>Sunday</i>. ✗ • The library closes for a 2-hour lunch break on a <i>Friday</i>. ✓ 	<ul style="list-style-type: none"> • The library stays open for the longest time on a <i>Tuesday</i>. ✓ • The library is open for 5 hours <i>everyday</i>. ✗ • The latest the library stays open is on <i>Saturday</i>. ✗ • The library closes for a 2-hour lunch break on a <i>Friday</i>. ✓
<p style="text-align: center;">1 Beginning</p> <p><i>The student has not managed to find the correct information in the list of opening times.</i></p>	<p style="text-align: center;">2 Developing</p> <p><i>The student has tried to make sense of the opening hours but has not managed to get all the answers correct.</i></p>

b Verona takes 25 minutes to walk to the library. What is the latest she can leave home to be at the library at opening time on a Tuesday?

<p><i>09:00 + 25 minutes later is 09:25.</i></p>	<p><i>Opening time is 09:00.</i></p> <p><i>25 minutes before that is 08:35.</i></p> <p><i>The latest she can leave is 08:35.</i></p>
<p style="text-align: center;">1 Beginning</p> <p><i>The student has mixed up the latest time with “later” and added 25 minutes instead of subtracting.</i></p>	<p style="text-align: center;">4 Highly proficient</p> <p><i>The student has read the correct opening time and calculated the time 25 minutes earlier than that to get the right answer.</i></p>

Question 3

- a** Marcia took out a book on 3rd May. What is the latest date she can return it without paying a fine?

2 weeks later.	She can keep the book for 2 weeks. 2 weeks is 14 days. $3 + 14 = 17$ May.
<p>2 Developing</p> <p>The student knows how long she can keep the book but has not answered the question correctly because they did not give a date.</p>	<p>4 Highly proficient</p> <p>The student has the correct answer and has shown how they worked it out.</p>

- b** Janelle returned her book on 23rd May. If the book was 1 week late, when was it due to be returned?

30 May.	1 week is 7 days later. It was due on the 16th.
<p>1 Beginning</p> <p>The student has added on a week instead of working out that the book was due a week earlier.</p>	<p>3 Proficient</p> <p>The student understands the question and has the correct answer without the month.</p>

- c** Jerome's book was due back on 1st May. He only returned it on 15th May. What fine would he have to pay?

$\$35 \times 2$	That is 2 weeks late, so $\$35 \times 2 = \70 .
<p>2 Developing</p> <p>The student understood the question but has not worked out the actual answer.</p>	<p>4 Highly proficient</p> <p>The answer is correct and the student has shown how they got to the answer.</p>

- d** Marcus took out a book on 1st May and forgot to return it. He only remembered he had it on 31st May and he took it back to the library. What fine would he have to pay? Explain why.

<p>He would have to pay \$105.</p>	<p>His fine would be \$105.</p> <p>The book was due on 15 May. He took it back 2 weeks and 2 days later, so he would most likely have to pay $3 \times \\$35 = \\105.</p>
<p>3 Proficient</p> <p><i>The student has the correct answer but has not clearly explained why he would pay \$105.</i></p>	<p>4 Highly proficient</p> <p><i>The student has given the correct answer and clearly explained why the fine would be \$105.</i></p>

- e** The Jamaican Information Services announced that people could return their library books, no matter how overdue they were, during June and July and pay no fines. Why do you think they may have done this?

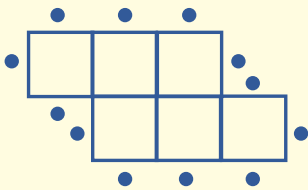
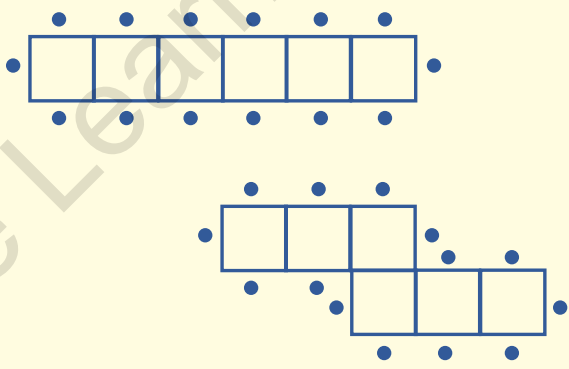
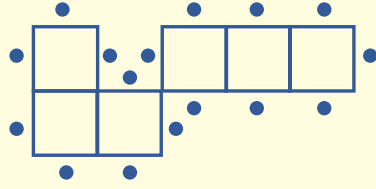
<p>To make people not pay their fines.</p>	<p>I think they do this to get people to return books they have had for a long time. Sometimes people might not take the book back because they don't have enough money to pay the fines. This helps the library and the people who cannot afford to pay.</p>
<p>1 Beginning</p> <p><i>The student has not given an opinion or any sensible reasons.</i></p>	<p>4 Highly proficient</p> <p><i>The student has a clear opinion and gives a sensible reason for the Information Services decision.</i></p>

Question 4

- a The librarian arranges the tables so that students can work in groups. For each of these arrangements of desks (in **A–D**), write how many chairs will be needed.

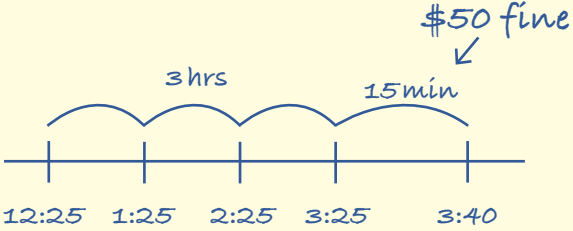
A 2	B 3	C 4	D 4	A 6	B 8	C 10	D 10
1 Beginning				2 Developing			
The student seems to have given the number of desks and not the number of chairs.				The student has most answers correct but seems to think that C and D both have 10 because they both have 4 desks.			

- b Which grouping of six desks will give the greatest number of chairs? Draw your idea here.

 <p>12 chairs are the most.</p>	 <p>The most chairs you can have with 6 desks is 14. But if you put them like this, you can get 16.</p> 
2 Developing	4 Highly proficient
Even though the answer is not correct, the student shows they understood the question and they have drawn a solution.	The student has shown two ways of getting the maximum number of chairs and suggested a different arrangement to get 16 chairs.

Question 5

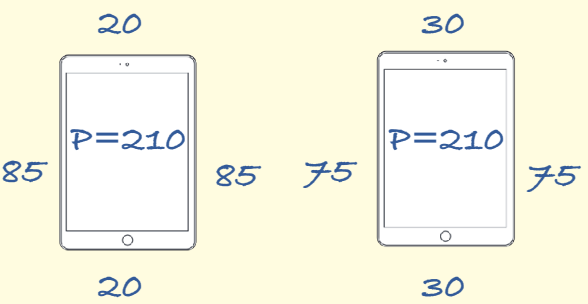
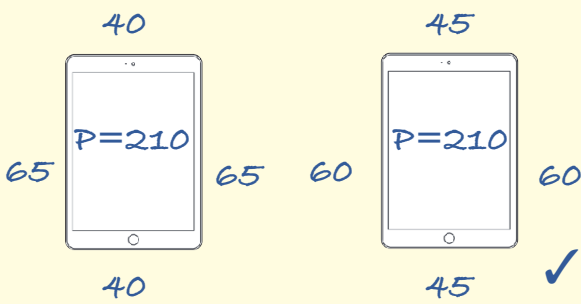
- a Samuel borrows a tablet at 12:25 p.m. He returns it at 3:40 p.m. without the power cord. What fine will he have to pay?

<p>\$50 fine.</p>	 <p>Plus \$2 000 for the power cord. His fine will be \$2 050.</p>
<p>1 Beginning</p> <p><i>Student has not considered the power cord and they have not shown any working out.</i></p>	<p>3 Proficient</p> <p><i>Student has drawn a number line to show how they worked with time and they have added the power cord fine.</i></p>

- b Nadia accidentally knocked a tablet off the table and cracked the screen. She reports this to the librarian immediately. What do you think will happen next? Explain why.

<p>She will have to pay to fix it.</p>	<p>I think the library will take her details and make her sign that she has damaged the tablet. The library will need to find out what the cost will be before Nadia can pay for the damage. Once they know that, Nadia will need to pay.</p>
<p>2 Developing</p> <p><i>The student has said what will happen next but has not said why they think this.</i></p>	<p>4 Highly proficient</p> <p><i>The student has shown a good understanding of what is likely to happen as a result of Nadia damaging the tablet.</i></p>

c Work out how wide and how long the screen is.

 <p> $\frac{20}{85} \neq \frac{3}{4}$ $\frac{30}{75} \neq \frac{3}{4}$ </p>	 <p> $\frac{40}{65} = \frac{8}{13}$ $\frac{45}{60} = \frac{9}{12} = \frac{3}{4}$ </p> <p>Perimeter = $2 \times (\text{length} + \text{width})$</p> <p>So, length + width = $210 \div 2 = 105$ cm</p> <p>The ratio of width to length is $\frac{3}{4}$ or 3 : 4</p> <p>$105 \div 7 = 15$</p> <p>$3 \times 15 = 45$</p> <p>$4 \times 15 = 60$</p> <p>Check: $\frac{45}{60} = \frac{3}{4}$</p> <p>$45 + 60 = 105$ cm</p> <p>The screen is 45 cm wide and 60 cm long.</p>
<p>2 Developing</p> <p>The student has used trial and error to work out the correct answer. This is quite a long process, but it shows they understood the question and they got to the right answer.</p>	<p>4 Highly proficient</p> <p>The student has used the formula for perimeter and applied what they know about fractions to get the correct answer in a clear and short way.</p>

Reflection

Go back through your own answers to the questions in this task.

Which question did you find the easiest to answer?

- Why do you think the question was easy for you?

- I had done one like it before
 - I understood what to do
 - I remembered how to do it
 - I used pictures or working out
 - Other: _____
-

Which question did you find the hardest to answer?

- Write the question number or what it was about. _____

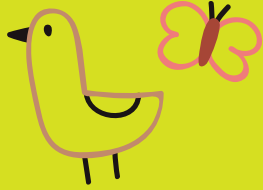
- Why do you think the question was hard?

- I didn't understand it
 - I forgot what to do
 - I made a mistake in my working out
 - Other: _____
-

- What is one thing you can do next time to help yourself?

- Read more carefully
 - Use the working-out space
 - Ask for help if I need it
 - Take my time
 - Other: _____
-

JAMAICA



PEEP

Mathematics

Performance Task

Practice Papers

GRADE
4

SAMPLE

Improve learners' confidence as they comprehensively prepare for the Performance Task exams, with the only resource focusing on reflective learning to sustain and develop critical thinking.

- Transition learners from dependence to autonomy with the Thinking Toolkit, which signals areas that require teacher intervention.
- Enhance learners' critical thinking and problem-solving abilities with a pedagogical and cognitive approach to exam practice.
- Reduce anxiety and familiarise students with practice papers that simulate real exams.
- Answers and explanations are available free at www.hachettelearning.com



ISBN 978-1-0360-0519-1



9 781036 005191



Visit us at hachettelearning.com