## Detailed Information

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**Notes**

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### CD Features:
- Answers to all practice and full-length tests
- Tips for Teachers
- Handy checklists for Teachers
Test Tips

All tests are designed to provide useful information to help you and your teacher plan what you need to learn next. The NAPLAN® tests are no different. All you need to do is be as prepared as you can and answer the questions to the best of your ability. Follow the practical advice provided throughout the rich resources in this book and the accompanying CD-ROM and you will be prepared to successfully sit most tests at the secondary level.

1. Generally the questions become more difficult as you proceed through the test

The numeracy test questions cover a range of content and difficulty levels. Understanding more about the types of skills assessed at each level is useful information for you as a test taker.

To illustrate the range of difficulty in a test think about the following questions you might be asked to answer about information in tables. Early in the test you might simply be asked to locate particular information contained in a table, such as the number of students who ride to school. By the middle of the test you might be asked to interpret information in a table, such as working out the best time to catch a train to arrive at your destination by 4 p.m. Towards the end of the test you might be asked to calculate and interpret the mean, median and mode of data in a table. The test questions vary from year to year, however, the range of difficulty and content across the test will be very similar.

2. Use the tip

The majority of test questions contained in the two booklets are multiple-choice format while approximately one-quarter of the test questions require you to provide the correct answer. There are icons on the page that tell you what to do, for example, ‘Shade one bubble’ or ‘Write your answer in the box’. Follow the icon instructions as you proceed through the test.

There are two separate numeracy tests. You will be able to use a calculator to assist you in one of the test papers so make sure you read the calculator skills section to ensure you can make the best use of your calculator during that part of the test. Throughout these resources distinctive icons will help you identify when you are allowed to use a calculator.

There are icons to alert you to further information available on the Internet. Make the most of this extra information to keep you one step ahead.

And of course, make sure you read all the special tips throughout the resources that are highlighted by the ‘Hot tips’ icon as these tips relate to things many students forget to do or can do better.

3. Read the questions carefully

The first step is to read the question and think about what it is asking you to do. Try underlining key information in the question to focus your thinking. Consider the following question and then read the recommended approach that you can apply to any question.

**QUESTION 4**

What is the area of this rectangle? Round your answer to the nearest square metre.

It is useful to circle or underline the measurements given on the rectangle: 3.1 metres (note this is the longer side, or the length), 1.2 metres (note this is the shorter side, or the width).

The question text tells you what you need to calculate and the accuracy required for your answer. Underline the important words in the question such as: area, rectangle, nearest square metre.

The icon indicates that you are required to write your answer in the box provided. It is important that your answer is complete. In this case the answer needs to be correct to the nearest square metre.

To answer this question you apply the formulae for calculating the area of a rectangle. The area of a rectangle is the length times the width.

\[ A = l \times w \text{ where } l = \text{length and } w = \text{width} \]

Remember to revise important facts and formulae such as this during your test preparation.

The area of this rectangle is 3.1 \( \times \) 1.2. Your calculation is 3.1 \( \times \) 1.2 or a total of 3.72 square metres. Rounded to the nearest square metre the area is 4 square metres. It is very important that you include the measurement unit (square metres or \( \text{m}^2 \)) to ensure the answer is completely accurate. Likewise, if a question has any unit description this should be included in your answer, for example 28 US dollars, 115 degrees,
**Instructions**

- A correct answer scores 1 mark, and an incorrect answer scores 0.
- Marks are not deducted for incorrect answers.
- No marks are given if more than one answer alternative is shaded.
- Choose the alternative which most correctly answers the question and shade in the box next to it.

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**QUESTION 1**
Which of the following pairs are equivalent?

- [ ] 33% and $\frac{1}{3}$
- [ ] 0.5 and 5%
- [ ] 0.24 and $\frac{1}{4}$
- [ ] $\frac{1}{5}$ and 0.2

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**QUESTION 2**
What is the area of the rectangle?

- [ ] 123.82 cm²
- [ ] 147.12 cm²
- [ ] 294.24 cm²
- [ ] 123.82 cm²

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**QUESTION 3**
A spinner is spun 10,000 times and the results are shown in the graph.

Which of the following spinners is most likely to give these results?

- [ ] Spinner 1
- [ ] Spinner 2
- [ ] Spinner 3
- [ ] Spinner 4
QUESTION 7
Which of the following solids below is identical to this one?

![Solids Diagram]

QUESTION 8
Mario is standing in the middle of a room, facing the window, as shown.

If Mario has turned anti-clockwise to face the TV, through what type of angle has he turned?

- [ ] an acute angle
- [ ] an obtuse angle
- [ ] a right angle
- [ ] a reflex angle

QUESTION 9
What is the sixth element in this pattern?

1, 2, 4, 8 ...

WRITE YOUR OWN ANSWER
QUESTION 13
One measure of the difficulty of reading is the length of words in a random paragraph. The graph shows the analysis of a paragraph in The Dark Sun.

What statement below is true about this graph?

☐ The longest word had 15 letters.
☐ There was the same number of words with 5 and 6 letters.
☐ The most common number of letters in a word was 4.
☐ There were no words with 7 letters.

QUESTION 14
What is the missing number?

$27 \times \square = 18 \times 18 \times 8$

QUESTION 15
The grey shape in the diagram has been rotated to make the orange shape.

What is the best description of the rotation?

☐ 90° clockwise
☐ 90° anticlockwise
☐ 180° clockwise
☐ 270° clockwise
QUESTION 16
Nana’s button tin has lots of white buttons and lots of grey buttons. This shows the ratio of white buttons to grey buttons in Nana’s tin.

Which of the following diagrams shows another tin with the same ratio of white to grey buttons?

[Image of button tins]

QUESTION 17
What is the rule shown by this flow chart?

\[ m \times 4 + 3 \rightarrow n \]

\[ m = 4n + 3 \quad \quad m = n + 7 \quad \quad n = m + 7 \quad \quad n = 4m + 3 \]

QUESTION 18
Which letter has the coordinates (3.5, 8.5)?

[Image of a grid]

\[ \square G \quad \square H \quad \square E \quad \square C \]
QUESTION 19
Which of the following statements is true about the following shapes?

Shape 1
Shape 2
Shape 3
Shape 4

☐ Shape 1 is a rhombus.
☐ Shape 2 is a trapezium.
☐ Shape 3 is a rectangle.
☐ Shape 4 is a square.

QUESTION 20
Which of the following is the most likely answer for the area of a stamp?

☐ 2mm²
☐ 2cm²
☐ 2m²
☐ 2km²

QUESTION 21
The graph below shows the number of students in each class at Reservoir Primary School.

What is the range of the data?

QUESTION 22
Which of the following diagrams has 25% shaded?
QUESTION 30
The brochure shows the cost of the phone company CallCheap.

CallCheap: for low, low mobile rates...

How low can you go?
5c calls CallCheap-to-CallCheap (60c per minute to others)
5c txts CallCheap-to-CallCheap (25c to others)
20c photos CallCheap-to-CallCheap (50c to others)

Voicemail free

You won’t believe our rates!

Tessa’s friends all use this company except George. One day she sends 120 texts to her friends that use CallCheap and 20 to George. She makes 35 calls to her CallCheap friends and speaks to George for 5 minutes. She also sends George three photos. How much would she pay if she used CallCheap?

$ .

QUESTION 31
The following solid was made from cubes.

Assuming the cubes go down to the ground, the number of cubes required to make the solid is:

☐ 10  ☐ 12  ☐ 8  ☐ 11

QUESTION 32
The ancient Greeks considered a number to be a perfect number if the sum of its factors, excluding itself, equals the number. Which of the following is a perfect number?

☐ 26  ☐ 25  ☐ 27  ☐ 28
Students will be best prepared for the NAPLAN\(^3\), or any other test, when they understand the assessment criteria underlying the test and are able to utilise appropriate strategies to respond to different question types.

The A+ National Numeracy Tests are designed to provide students with an overview of the length, difficulty and composition of the national tests. The six practice tests in both non-calculator and calculator-allowed formats are ideal for use during the first part of the year. The difficulty level gradually increases across these tests. Students check their answers against the solutions provided on this CD-ROM and hone their skills. You may complete these activities in class or set them as homework tasks.

As the test time approaches, use the four full-length detachable tests, each representing the length, content and difficulty you can expect in the NAPLAN\(^3\) test. Tests 7 and 8 are designed for students to complete and check against the provided solutions. Tests 9 and 10 are designed to be handed in to you after completion for correction and feedback. You will find all test solutions on this CD-ROM in the same format as the test to make correction easy. Use the results of the test to complement other information you have about individual student and class strengths and weaknesses. You will then be able to focus on any areas that require class revision and support students in any specific area required.

Use the following hints to help you make the most of the available resources to support your students’ preparation for the tests.

**HINT 1**

Monitor students’ use of test time

Students are allowed 40 minutes to complete each test. This is a very generous time allowance for the first of the practice tests so it will provide a good guide as to how well individual students are able to use their time. Ask students to either record the time it takes them to complete each test or to mark the question they were working on when 40 minutes had elapsed. It is important at this stage that students complete all the questions if possible, so that they have attempted a range of knowledge, application and reasoning questions. Completing the test will also give students a better idea about the type of questions and the content coverage across number, algebra, function and pattern, measurement, space, and chance and data that they are likely to find in the national test.

**HINT 2**

Support student self-assessment

As students complete each of the practice tests, instruct them to correct and check their work against the solutions provided on this CD-ROM and to review any of their answers that were incorrect. Encourage students to identify where they made their mistake and to suggest ways they might improve in the future. It may be that they were not familiar enough with common formulae and this could be remedied by some further study and application work. Also encourage your students to celebrate their success and share in a group or with the whole class ways in which they tackled particular problems and strategies that they found successful for checking their response was accurate.

**HINT 3**

Maximise the benefit of the four full-length detachable tests

The book contains four full-length tests (non-calculator and calculator-allowed sets). Each of these tests is the same length and level of difficulty of the national tests and they also have a similar content coverage across number, algebra, function and pattern, measurement, space, and chance and data. These tests are ideal practice tests during the month leading up to the national test. Tests 7 and 8 are designed to be completed and corrected by the student. Encourage students to identify any area they may need to revise before attempting the next test. Tests 9 and 10 are designed to be handed in to you. Use the results of these tests to identify any areas that the class might benefit from focused revision or further discussion. Provide feedback to individual students where appropriate to assist their learning focus. Check that students are complying with test procedures such as recording their response in the answer box and writing legible, non-ambiguous responses. Work through questions that many students had difficulty with as a class so that students have the opportunity to employ different strategies to solve the answer together.

**HINT 4**

Clear time and the space to conduct the full-length tests.

Make sure you have a clear 40 minutes, plus administration time, for each practice test. Preferably hold the test on a day clear of other major events in the school.