

## Summary

### Test Identification

<b>Name</b>	2020 MAT SW 3.3
<b>Date Created</b>	15 Oct 2020
<b>Date Modified</b>	25 Nov 2020
<b>Subject</b>	Mathematics
<b>Status</b>	SCORED
<b>Sequence Number</b>	1073487
<b>Total Test Time</b>	57 minutes
<b>Delivery Method</b>	Onscreen

### Curriculum Strand

<b>Number Sense &amp; Operations</b>	13	<b>Number Knowledge</b>	9
<b>Statistics</b>	9	<b>Algebra</b>	16

### Curriculum Level

<b>2B</b>	2	<b>2P</b>	2	<b>2A</b>	3
<b>3B</b>	8	<b>3P</b>	18	<b>3A</b>	6
<b>4B</b>	3	<b>4P</b>	2	<b>4A</b>	1

### Cognitive Processing

<b>Surface</b>	24	<b>Deep</b>	21
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### Slider Settings

<b>Strands</b>		<b>Level</b>	
<b>Number Knowledge</b>	Most	<b>Level 2</b>	Few
<b>Number Sense &amp; Operations</b>	Most	<b>Level 3</b>	Most
<b>Algebra</b>	Most	<b>Level 4</b>	Few
<b>Statistics</b>	Most		

## Marking Guide : 2020 MAT SW 3.3

Q.No	Marking Key
1	b
2	b
3	>
4	<
5	>
6	>
7	d
8	c
9	b
10	c
11	c
12	d
13	c
14	6
15	3/4 or equivalent
16	2/3 or equivalent
17	a
18	c
19	c
20	b
21	d
22	b
23	b
24	a
25	a
26	a
27	b
28	d
29	b
30	c
31	a
32	c
33	5

### Instructions

**Underlined Questions** e.g. 10 :Use teacher judgement. Give 1 if answer matches marking guide (unless otherwise instructed). For incorrect answers give 0 (zero).

**All other Questions:** Enter the response chosen by the student using letters. For example, 'a' for the first option; 'b' for the second option; 'c' for the third option and so on.

**Questions Not Answered:** Enter a dash (-).

Q.No	Marking Key
34	b
35	b
36	b
37	b
38	c
39	d
40	6 hours
41	3:00 pm (accept from say 2:30pm), because it is at this time that the shellfish are at their closest to the water surface; you would not get as wet when collecting them. '1 mark for explanation fitting the time 3.00 pm only. No mark if only time given.'
42	3:00 am
43	a
44	d
45	b

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Instructions

**Underlined Questions** e.g. 10 :Use teacher judgement. Give 1 if answer matches marking guide (unless otherwise instructed). For incorrect answers give 0 (zero).

**All other Questions:** Enter the response chosen by the student using letters. For example, 'a' for the first option; 'b' for the second option; 'c' for the third option and so on.

**Questions Not Answered:** Enter a dash (-).

Choose a circle to show how much each sentence is like you

Very Unlike Me 1	Unlike Me 2	Like Me 3	Very Like Me 4
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01. I think maths is exciting and interesting.

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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02. I never get tired of doing maths.

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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03. I like to do and think about maths outside of school.

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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04. I think maths helps me to understand life.

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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05. I think that maths helps people make important decisions.

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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06. Maths is NOT boring.

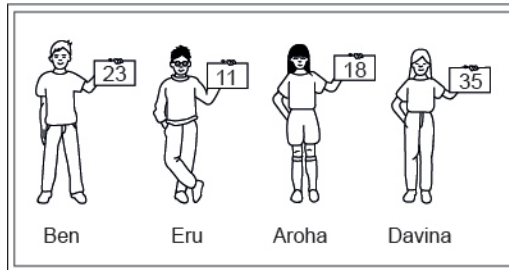
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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## Practice Questions

These practice questions are to help you understand how to show your answer for different types of questions.

**P01.** Who is holding a card with an even number on it?

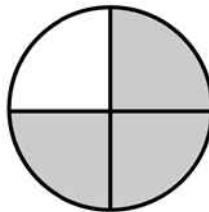


- Ben
- Eru
- Aroha
- Davina

**P02.** Complete this number pattern.

2, 4, \_\_\_\_\_, \_\_\_\_\_, 10

**P03.** What fraction of this circle is shaded?



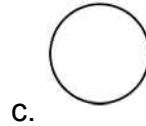
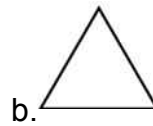
\_\_\_\_\_



**P04.** Match the sentence with the correct shape.

1. I have three sides

2. I have 4 sides



**P05.** Which numbers make this number sentence **TRUE**?

$$2 + \star > 5$$

1

2

3

4

5

**P06.** Put the numbers 1, 2, 3, and 4 in the boxes to order these numbers from biggest (1) to smallest (4).

3

7

2

0

**P07.** Select whether the following statements are True or False.

In the number 213, the value of 1 is ten.

**TRUE**

**FALSE**

In the number 504, the value of 5 is fifty.

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ONLY

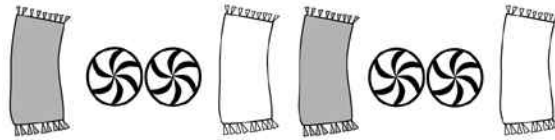
01. Tony had \$20. He paid \$8 for a ticket to a baseball game. At the game, he bought a hot dog for \$3.

What amount of money did Tony have left?

- \$5
- \$9
- \$11
- \$15

02. Look at this pattern.

Which of the following shows the same kind of pattern?



- 
- 
- 
- 

Place  $<$ ,  $>$  or  $=$  in the square to make each of these number sentences in questions 03 to 06 true.

03.

96 \_\_\_\_\_ 56



04.

81 \_\_\_\_\_ 98

05.

10 x 3 \_\_\_\_\_ 4 x 5

06.

8 + 1 \_\_\_\_\_ 10 - 6

End of Section

07. The library charges fines for each book that is returned late. The table shows the amount charged for different numbers of days that a book is returned late. Based on the data in the table, which of the following is the amount charged for returning a library book 1 day late?

Overdue Book Charges

Number of days late	5	6	7	8
Amount charged	\$1.25	\$1.50	\$1.75	\$2.00

- \$1.00
- \$0.75
- \$0.50
- \$0.25

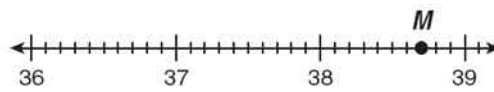
08. Which number sentence is **TRUE**?

- $968 < 698$
- $968 < 689$
- $968 > 689$
- $968 = 689$

09. Year 4 students went to a concert in 8 buses. Each bus took 45 students. How many students went to the concert?

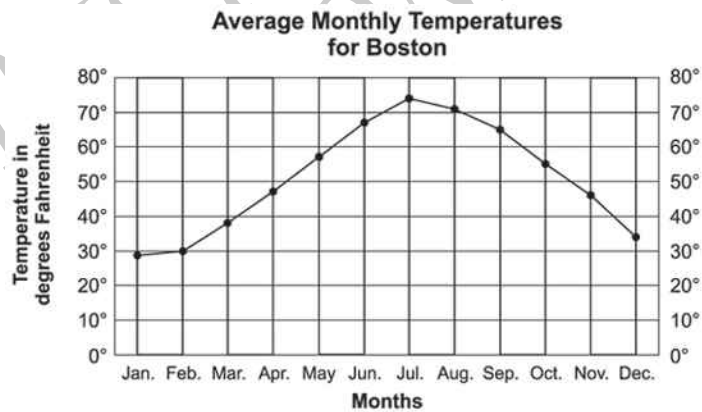
- 320
- 360
- 380
- 3240

10. On the number line below, what number does point  $M$  represent?



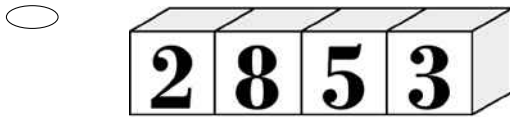
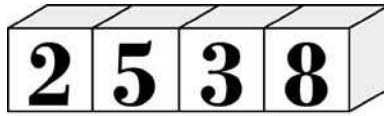
- $36\frac{2}{5}$
- $37\frac{1}{5}$
- $38\frac{7}{10}$
- $39\frac{1}{10}$

11. What is the average temperature for October?



- 45°F
- 50°F
- 55°F
- 60°F

12. John made a number with the blocks shown below.  
Sonya used the same blocks to make a number **less** than John's number.  
Which could be the number Sonya made?



13. Look at this number sentence.

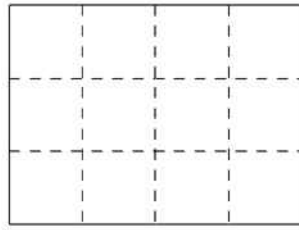
$$8 + \square = 15$$

Which could you do to find the missing number?

- Add 8 and 15
- Add 15 and 7
- Subtract 8 from 15
- Subtract 7 from 8

Use the following information to answer questions 14 to 16.

At a party, a cake was cut into pieces.



**Cake**

14. How many pieces are there in  $\frac{1}{2}$  of the cake?

\_\_\_\_\_

15. Write the fraction for 9 pieces of the cake?

\_\_\_\_\_

16. Ben ate 4 pieces of cake.

What fraction of the cake is left?

\_\_\_\_\_

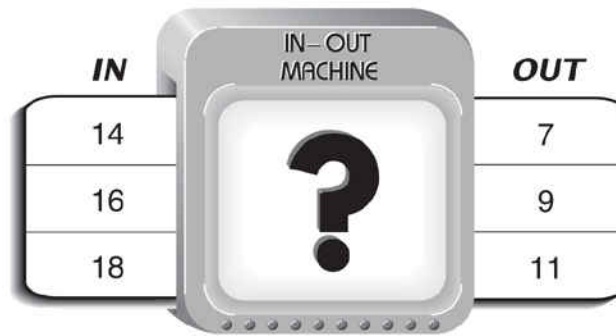
End of Section

17. Adele used a rule to complete the Input-Output table shown below. Which of the following rules did Adele use?

Input	1	3	5	7
Output	5	15	25	35

- Multiply the input by 5
- Divide the input by 5
- Add 4 to the input
- Subtract 4 from the input

18. What is the rule that changes **In** numbers to **Out** numbers?



- Divide the In number by 2.
- Add 7 to the In number.
- Subtract 7 from the In number.
- Subtract 6 from the In number.

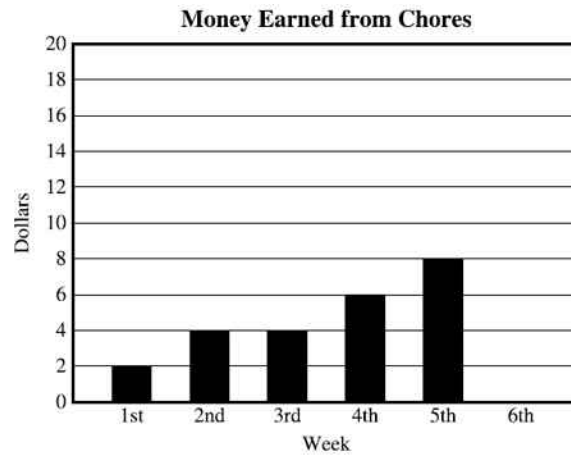
19. The temperature inside the ski lodge is 18°C.  
The temperature outside the lodge is 25°C lower than inside.  
What is the temperature outside?

- 7°C
- 0°C
- 7°C
- 25°C

20. Ravi has more tapes than magazines. He has fewer tapes than books.  
Which of the following lists these items from the greatest to the least in number?

- Books, magazines, tapes
- Books, tapes, magazines
- Magazines, books, tapes
- Tapes, magazines, books

21. Darrell graphed the money he has earned for the past five weeks. If this pattern continues, what would be a reasonable prediction of his earnings for the sixth week?



- Over \$20
- Between \$14 and \$18
- Between \$12 and \$14
- Between \$8 and \$10

22. Which of these can be used to check the answer to the problem below?

$$4 + 3 = 7$$

- $7 + 3 = 10$
- $7 - 4 = 3$
- $2 + 5 = 7$
- $10 - 3 = 7$

23. Where should the decimal point be in the answer?

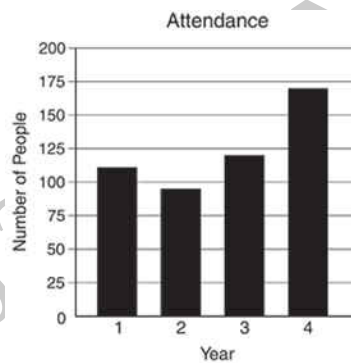
$$\begin{array}{r} 31.7 \\ \times 2.3 \\ \hline 7291 \end{array}$$

K      L      M

- K
- L
- M

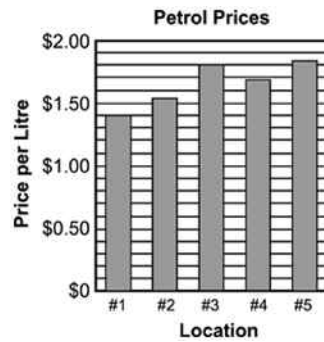
24. The graph below shows the number of people attending the talent show on the last four years.

Which is a **TRUE** statement about this graph?



- The attendance increased two years in a row.
- The attendance in Year 4 doubled the attendance in Year 1.
- The attendance decreased every year.
- The attendance increased every year.

25. On Saturday, Joseph compared the price of one litre of regular petrol at five different locations. The graph below shows the prices he recorded. Which is **closest** to the price of one litre of petrol at location #5?



- \$1.82
- \$1.75
- \$1.53
- \$1.08

26. Which does **NOT** equal 452?

- 3 hundreds, 5 tens, 12 ones
- 3 hundreds, 15 tens, 2 ones
- 4 hundreds, 5 tens, 2 ones
- 4 hundreds, 4 tens, 12 ones

27.  $503 - 207 =$

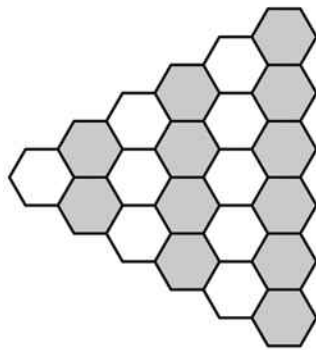
- 206
- 296
- 304
- 396



28. What is 4982 rounded to the nearest hundred?

- 4000
- 4900
- 4980
- 5000

29. Andi is using white and gray tiles to make the pattern shown below. If she continues the pattern in the same way, how many tiles will be in the next column of **gray** tiles?



- 7
- 8
- 10
- 12

30. Iris is writing music for a video game. The picture below shows how a pattern of 5 notes repeats while the game is played.

If the pattern continues, what kind of note will be the 12th note played?

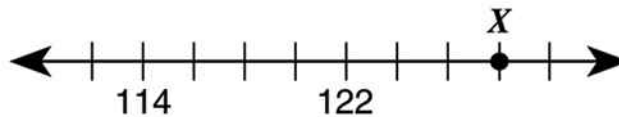


- 
- 
- 
- 

31. If the sum of 39 and 66 is divided by 3, the result is

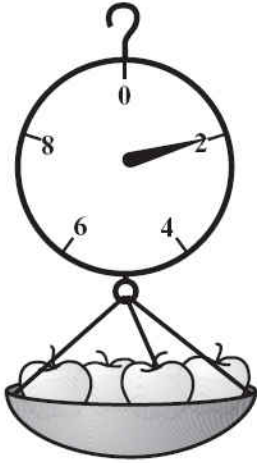
- 35
- 61
- 79
- 315

32. Which **BEST** describes the location of point X on the number line shown below?



- 134
- 131
- 128
- 125

33. The scale shows how much 4 apples weigh.



How much would 10 apples of the same size weigh?

\_\_\_\_\_

34. Lamanda is playing a game using a game piece in the shape of a regular triangular pyramid. Each of the four congruent faces of the pyramid is a different colour: red, blue, green, and yellow.

If Lamanda tosses the game piece 60 times, how many times is red **MOST** likely to be the colour facing down?

- 4
- 15
- 30
- 45

35. Between which two consecutive whole numbers does  $\sqrt{42}$  lie?

- 5 and 6
- 6 and 7
- 7 and 8
- 8 and 9

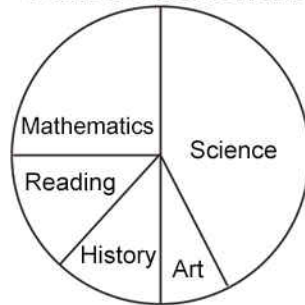
**36.** The temperature in a freezer was  $-15^{\circ}\text{C}$ .  
What would the temperature be if it rose by  $6^{\circ}\text{C}$ ?

- $-21^{\circ}\text{C}$
- $-9^{\circ}\text{C}$
- $9^{\circ}\text{C}$
- $21^{\circ}\text{C}$

**37.** The pie chart below shows the portion of time Patrick spent on homework in each subject last week.

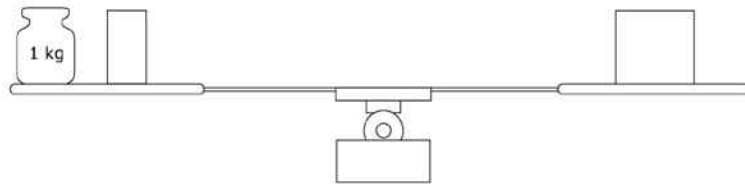
If Patrick spent 2 hours on Mathematics, about how many hours did he spend on homework altogether?

**Patrick's Homework**



- 4
- 8
- 12
- 16

**38.** The objects on the scale make it balance exactly. On the left pan there is a 1 kg weight (mass) and half a brick. On the right pan there is one brick. What is the weight (mass) of one brick?



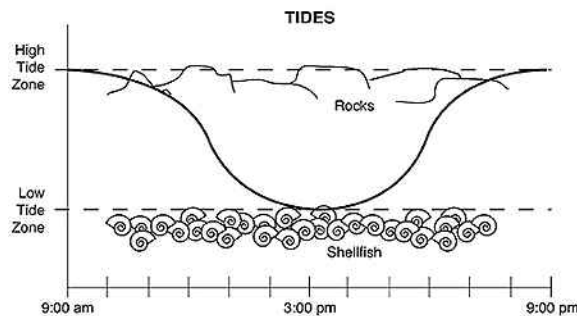
- 0.5 kg
- 1 kg
- 2 kg
- 3 kg

**39.** Which statement is true?

- The only factors of 8 are 1 and 8.
- The only factors of 9 are 1 and 9.
- The only factors of 10 are 1 and 10.
- The only factors of 11 are 1 and 11.

**Use the following information to answer questions 40 to 42.**

Some students made a graph to show the tides at the local beach for one day.



**40.** Using the graph, approximately how many hours are there from high tide to low tide?

\_\_\_\_\_

41. Decide the **BEST** time to collect shellfish that day and explain your answer.

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42. Approximately, what time would the next low tide be?

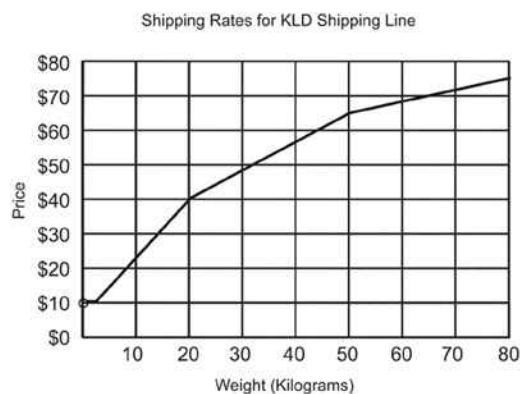
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End of Section

43. Carol is conducting an experiment to see which colour of sweetened water will attract more hummingbirds. Her first step is to formulate questions necessary for data collections. Which of the following questions is **NOT** necessary to collect the data?

- How many times per minute do hummingbirds' hearts beat?
- What distance above the ground should the feeders be hung?
- For how many hours should Carol collect the data?
- How much sugar should be mixed with the water in each feeder?

Use the following information to answer question 44..



44. Allie has \$32.50.

Which is the **BEST** estimate of the heaviest item she can ship?

- 50 kg
- 45 kg
- 20 kg
- 15 kg
- 10 kg

45. Mari's allowance increases by \$1.00 each week. She receives \$4.00 the first week. How much money will she receive the fourth week?

- \$6.00
- \$7.00
- \$8.00
- \$9.00

ADMINISTER ON SCREEN  
ONLY

Please provide these instructions to all staff involved with administering e-asTTle online.

## Before the testing session

### 1. Make sure students have the right devices and browsers installed

Unsupported devices may result in the test not displaying correctly and affect students' scores.

#### Desktop/Laptop

- Windows, Mac or Chromebook
- Minimum window width: 1280 pixels
- Windows devices need up-to-date Edge, Chrome, Firefox or IE11
- Windows tablets/hybrids e.g., Surface Pro must have a keyboard attached
- Mac devices need recent Chrome or Safari

#### Large Tablets (9" +)

- iPads: iOS 10+ with Safari
- Androids: Large tablet e.g., Samsung Galaxy Tab 4. Must have Android 5+ and latest Chrome
- Minimum window width: 768 pixels

iPad Minis and small Androids must not be used.

More information on device requirements and the underlying rationale is available on the [help site](#).

### 2. Sit the Practice Test

[A practice test for each subject](#) is available. These are also available in the Student Portal (no login required). Practice tests are designed to familiarise you and your students with e-asTTle online before sitting a real test. Each practice test contains attitude questions, look-over time and 5-8 questions designed to be relatively simple to answer. [Teacher scripts](#) are available for practice tests.

### 3. Ensure you have student login information

More information on accessing student logins and resetting passwords is available on the [help site](#).

### 4. Check if calculators are required (Maths/Pāngarau)

Tests with questions at mostly Level 5 and 6 require the use of calculators. Tests with questions at mostly Levels 2 to 4 do NOT require a calculator.

## During the testing session

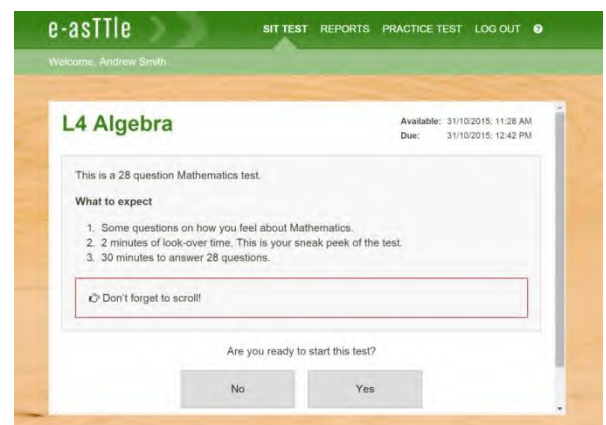
### 1. Check equipment

- Make sure students' devices are charged.
- Make sure students have scrap paper and a pen/pencil for working, calculators (if needed) and a quiet activity they can continue with if they finish early.

### 2. Read the Test Details to students

Once students select a test, they will see the test details page (example shown on right).

Read through this page aloud with your students.





Other reminders to discuss with students:

- Once they choose 'Yes', the timer starts. Once the timer is counting down, there is no way to pause the test. If students close the test accidentally, they can re-open it again, provided the timer hasn't finished.
- Ask students to raise their hand if something seems wrong.
- Fullscreen mode is recommended.

For students on iPad or Android tablet devices: remind them to lock their device in portrait mode.

For students on Windows hybrid devices (such as the Surface Pro): remind them to keep the keyboard attached during the test.

### 3. Supervising the test

Make sure you walk around and monitor students during the test. Students tend to continue with their test even if something has gone wrong – for example, a question does not display correctly. For this reason, check that pages are loading correctly, and students are scrolling to see all the content and options. It's a good idea to have a paper booklet of the test available during the testing session.

Students are generally expected to read the test content without assistance. Information on accommodations (e.g., reader-writers) is available on the [help site](#).

### 4. Know what to do if things go wrong


#### Internet disconnected

If student answers aren't saving, e-asTTle will show a yellow banner at the top of the page. The banner will turn red when there has been disconnection for 2 minutes or more. Students can keep answering whatever they can, and e-asTTle will try and save answers. Don't refresh or close the window if a coloured banner is showing.



If the Internet has been down, use your professional judgement to decide if students' results should be [excluded](#).

#### Images not loading

If an image is missing, students will see an icon they can click to try and reload the image.  **INFO MISSING**  
[Click to reload](#)

#### A question doesn't load fully or looks strange

If something has loaded incorrectly, it can sometimes be corrected by selecting the 'Next' button then the 'Previous' button to reload the question.

Detailed troubleshooting information is available on the [help site](#). To report issues with online testing or for additional assistance, please contact the Education Service Desk: 0800 225 5428.