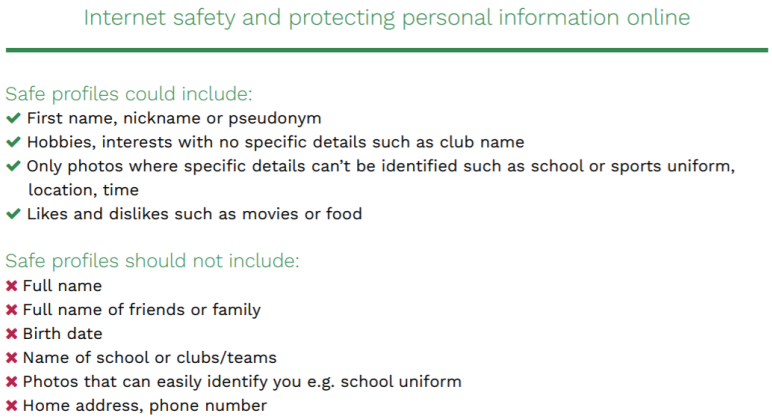
Stage 3 Remote Learning Timetable: Term 2 Week 2 2020

<table>
<tr><th colspan="2">Monday</th></tr>
<tr><td>8:55am</td><td>Roll Call; Welcome</td></tr>
<tr><td>9:10am</td><td>Library
Students working online – You will need to go to your class' Library Google Classroom to access the task. The code will be posted by your class teacher on your class Google Classroom. Remember that you have 30 mins on Friday to complete the task and upload your work.
Students working offline - See the quiz attached.</td></tr>
<tr><td>9:40am</td><td>Language Conventions
★ Spelling & Vocabulary
You will have 10 spelling words each week. This week's words are listed below.
<table>
<tr><td>Rule</td><td colspan="5">Verb endings Present/future tense. Drop final -e before adding -ing</td></tr>
<tr><td></td><td>escaping</td><td>including</td><td>raising</td><td>moving</td><td>challenging</td></tr>
<tr><td>Theme</td><td>bushfire</td><td>perspective</td><td>firefighter</td><td>structures</td><td>homeowners</td></tr>
</table>
1. List the base words for each of the 5 'rule' words.
2. Find 2 more words that fit this rule. Write down the base word followed by the word with ing.
3. Dictionary meaning of 'perspective'
4. What is the theme?
5. You may like to use the catchup and/or additional activities time during the week to help you learn to spell any words you don't already know.</td></tr>
<tr><td>9:55am</td><td>Crunch 'n' Sip Break</td></tr>
<tr><td>10:10am</td><td>English unit
Students working online –
You will create a description of the school grounds. This only needs to be one paragraph. Further instructions will be on your class Google Classroom.
Students working offline -
Using your notes, write a description of where you are staying. This only needs to be one paragraph. You will need this for Wednesday's lesson.</td></tr>
<tr><td>10:55am</td><td>Recess Break</td></tr>
<tr><td>11:25am</td><td>Mathematics
Chance: Recognise that probabilities range from 0 to 1
Students working online – follow your class teacher's instructions on Google Classroom.
Students working offline – see powerpoint notes attached.</td></tr>
<tr><td>12:10pm</td><td>Brain Break</td></tr>
<tr><td>12:25pm</td><td>COVID time capsule/Teacher check in
Continue as last week</td></tr>
<tr><td>1:10pm</td><td>Lunch Break</td></tr>
<tr><td>1:55pm</td><td>Drama
You will portray a range of emotions through altering your facial expressions.</td></tr>
</table>

	Facial Expression Hot Seat: You can ask someone at home if you could participate with them OR you could record yourself and ask someone to guess your expressions at a later time OR you could sit in front of a mirror and observe your expressions. 1. Warm up by looking at your smile – practise different ways to smile. 2. Now try these expressions – Sad, Excited, Angry. Hungry, Scared 3. Next, portray the emotion by your facial expression, that is appropriate for each of these situations: – You walked into the house and your mother has just baked some fresh cookies. – You heard tyres squealing from outside. – You walk into a public bathroom and the sewer is backed up and over flowing out of the toilets. – You wake up on your birthday and your mother is holding a sweet little puppy. – You walk into your kitchen, turn the light on and rats run across your feet. – You walk outside on a warm summer evening and you see the giant moon just starting to rise. – You just got a note in class that reads, "Come to the principal's office. Immediately!" – You are being yelled at by your father for talking back to your mother. – You just caught your sister stealing some of your money out of your money box. – You think you see your best friend at a party from across the room but you are not quite sure it's them because the light is so bad. – You are watching a scary, funny or dumb movie. (select one) – You are watching your favourite team win / lose the championship. (select one) – You are asked why you haven't completed your assignment by your teacher.
2:45pm	**Pack up; upload work**
Tuesday	
8:55am	**Roll Call; Welcome**
9:10am	**Reading** Read a fiction text. **Students working online –** Follow your class teacher's instructions regarding the text, on Google Classroom.
9:25am	**English unit** **Students working online -** 1. Look at the powtoon which explains figurative language. 2. Then look at the video Figurative Language devices which explains similes, metaphors, personification, onomatopoeia and alliteration. 3. If you understand those devices, then you could look at the 2nd Figurative Language devices video which explains idioms, hyperbole, oxymorons and allusion. 4. You will create a word wall or something similar, about figurative language devices. Follow your teacher's instructions on Google Classroom. **Students working offline-** 1. Read the Interpret Figurative Language Poster, explaining what each is. 2. Then look at the Figurative Language Poster which explains them further.

	3. Create your own word wall in your books, of figurative language you find or know of. It would be great if you could create columns for a few types. You can ask family members to assist you.
9:55am	**Crunch 'n' Sip Break**
10:00am	**Current Affairs** Watch BTN on ABC at **10am.** Use the information from BTN to answer as many of this week's Quiz questions as you can. Use the rest of this time to find answers to the rest of the Quiz questions. **Students working online** -Your teacher will upload the answers for you to self mark. **Students working offline -**The answers are attached
10:55am	**Recess Break**
11:25am	**Mathematics** Chance: Probabilities of Outcomes using Fractions **Students working online –** follow your class teacher's instructions on Google Classroom. **Students working offline –** see powerpoint notes attached.
12:10pm	**Brain Break**
12:25pm	**Catch up/Optional activities/ Teacher Check in**
1:10pm	**Lunch Break**
1:55pm	**Class PE** **Students working online –** Follow the link and complete the lesson. https://www.youtube.com/watch?v=iiN2fYbC0vc **Students working offline –** Participate in some fitness moves (you may like to put some music on) for around 10 minutes. You could include moves you have learnt from school. **All students:** After the lesson answer the following questions: 1. What was the main goal of your PE lesson today? 2. Rate how well you think you mastered the skills in today's lesson 3. Did you implement any protective strategies in today's lesson? 4. What muscle groups did you use today during your lesson? 5. Was there anything that limited your ability to participate today? If so, how did you overcome this? 6. How could you adapt today's lesson to be inclusive of someone with a disability?
2:45pm	**Pack up; upload work**
Wednesday	
8:55am	**Roll Call; Welcome**
9:10am	**PDH** Cybersafety: *Cybersmart Detectives*. Don't forget you have tomorrow as well to complete the task. **Students working online –** You will need to go to your class' PDH Google Classroom to access the task. **Students working offline -**

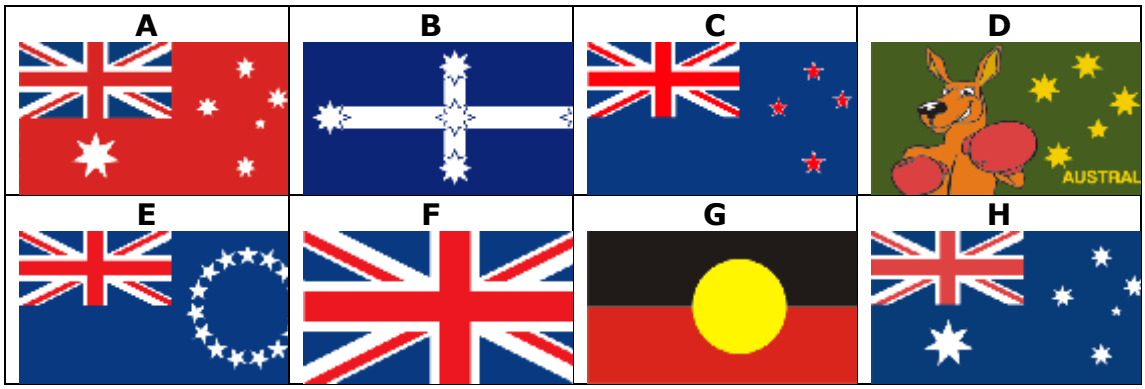
	1. Write and respond to each of these questions. ~ What should you do when you receive a message that makes you feel worried? ~ What would you do if you were worried about your friend and did not know how to help? When would you get an adult involved with a friend's problem? What are the potential dangers linked with specific modes of online communication, such as social networking, gaming sites, smart phones, web cameras. 2. Read the information below and notice the difference in what safe profiles and unsafe profiles include.  ~ Consider what information they should include and exclude and create your own personal profile, suitable to be posted online. <u>Self Reflection:</u> Write a list of trusted people who you would contact if you were concerned about online harassment or you were being bullied. You may wish to include support agencies like Kids Helpline and other support services you may know of. You may wish to investigate this further and look up what supports there are available to you.
9:40am	**Reading** Think of the setting or an object in the story that you read yesterday. You can choose different objects or settings for each question. What does it look like? What does it feel like? What does it taste like? What does it smell like? What does it sound like? Read more if you have any time remaining.
9:55am	**Crunch 'n' Sip Break**
10:10am	**Language Conventions** Last week you learnt about inverting sentences around the verb. Today you will begin sentences with a time phrase. For example: When the bell rang (time phase) we (subject) ran (verb) out to play.(object) Write 4 sentences beginning as follows. Use at least 2 spelling words in the sentences. It would be best to use 4. 1. When… 2. After…

	3. Before… 4. Inside...
10:25am	**English unit** **Students working online -** Follow your teacher's instructions regarding the addition of figurative language to your description of the school. **Students working offline -** Go back to the description of where you are currently living (from Monday) and rewrite it, adding appropriate figurative language to improve your text.
10:55am	**Recess Break**
11:25am	**Mathematics: Problem Solving** **Mrs Beach's Maths Games Team D –** after you have completed the tasks on your class Google Classroom, go to the Team D Google Classroom to complete the task there. **Students working online –** follow your class teacher's instructions on Google Classroom. **Students working offline –** see powerpoint notes attached. Answers provided.
12:10pm	**Brain Break**
12:25pm	**Science** Plant Health: Today you will investigate how and why food and fibre are produced in managed environments **Students working online –** follow your teacher's instructions on Google Classroom **Students working offline –** follow the pdf Science Wednesday Week 2 You will need to answer the following questions by the end of tomorrow's lesson: 1. What three primary nutrients are necessary for healthy plant growth, and how can they be replenished? 2. How does a plant resist disease and pests? 3. What are best management practices? 4. What are the 4Rs?
12:55pm	**Teacher Check in**
1:10pm	**Lunch Break**
1:55pm	**Genius Hour** 1. Look at your brainstorming and try to come up with no more than 3 ideas. You may already have one idea. 2. The next step is to have a look at the Questions doc. Start to think of questions that could fit into the thin (googleable) and thick (non-googleable) categories. Start to make a list. If you haven't decided on one idea, this may help your decision making.
2:45pm	**Pack up; upload work**
Thursday	
8:55am	**Roll Call; Welcome**
9:10am	**PDH** Complete the task from yesterday.
9:40am	**Reading** Read a fiction text. **Students working online –** Follow your class teacher's instructions regarding the text, on Google Classroom.
9:55am	**Crunch 'n' Sip Break**

10:10am	**English unit** **Students working online-** View videos and photos from your class Google Classroom of the recent bushfires – residents, firefighters, animals and how built structures were protected. Your teacher will give you further instructions, guiding you through an understanding of the effect of the bushfires on residents, firefighters, animals and buildings. **Students working offline-** Look at the photos attached. You can also reflect on the discussion about videos and photos that you viewed last term at school during the Geography unit: Bushfires. Take some notes about the effect of the bushfires on residents, firefighters, animals and buildings. Think about how they may feel about the bushfires.
10:55am	**Recess Break**
11:25am	**Mathematics** Chance: Probabilities using decimals, fractions and percentages **Students working online –** follow your class teacher's instructions on Google Classroom. **Students working offline –** see powerpoint notes attached.
12:10pm	**Brain Break**
12:25pm	**Science** Plant Health: Today you will continue to investigate how and why food and fibre are produced in managed environments **Students working online –** follow your teacher's instructions on Google Classroom **Students working offline –** follow the pdf Science Thursday Week 2
1:10pm	**Lunch Break**
1:55pm	**Catch up/Optional activities/Teacher check in**
2:45pm	**Pack up; upload work**
Friday	
8:55am	**Roll Call; Welcome**
9:10am	**Library** Complete your task for this week.
9:40am	**Language Conventions** Choose an activity to complete with the spelling words for this week. ▪ Pictionary ▪ Charades ▪ Buzz Off ▪ Start a pictorial dictionary – you could add to this each week or just do one for some words from this week ▪ Wordsearch/Find-a-word – you could add to this each week, until you run out of space ▪ Crossword puzzle - you could add to this each week, until you run out of space ▪ Place the words in alphabetical order ▪ Place the words in reverse alphabetical order ▪ Dictionary meanings of other words you are not sure of ▪ Find the number of syllables in the words. ▪ Spelling City https://www.spellingcity.com/users/mgbeach. Go to Stage 3 Term 2 Week 2 and you can choose games to play.

9:55am	**Crunch 'n' Sip Break**
10:10am	**English unit** You will begin on your end product for *Bushfire Perspective* today – a description of a bushfire scene, from the perspective of at least 2 characters. Your character could be a resident, a firefighter, an animal or even a building. You will write one paragraph per perspective. If you have an idea of a different perspective, see your teacher. Today, you will just jot down ideas and decide on your 1st character. ▪ You must describe what they feel, smell, taste, hear and feel. ▪ Your teacher will introduce you to the *Bushfire Checklist student copy*. This will provide you with a checklist of what to include in your paragraphs. ▪ You may find it useful to reflect on your notes from the activity with the TV last week – you related to your 5 senses from 3 different perspectives. ▪ You will begin with ONE perspective first. Use the Bushfire Character Perspective 5 senses graphic organiser to brainstorm some phrases to describe what your character sees, hears, smells, feels and tastes.
10:55am	**Recess Break**
11:25am	**Mathematics** Chance: Probabilities using decimals, fractions and percentages continued **Students working online –** follow your class teacher's instructions on Google Classroom. **Students working offline –** see powerpoint notes attached.
12:10pm	**Brain Break**
12:25pm	**Teacher Check in**
12:40pm	**Sport** Select activities of your choice from the Sport Challenge Matrix. You may choose the same activities as last week, but it would be more beneficial to select at least one different one.
1:10pm	**Lunch Break**
1:55pm	**Sport** Continued
2:45pm	**Pack up; upload work**

1. Which city is the national capital of Australia?
2. Name the states and territories of Australia - do not use abbreviations.
3. Which of these flags is our national flag? Choose the letter under the answer you think is correct.



4. What is the name of our national anthem?
5. Who is the Prime Minister of Australia?
6. Which political party does he/ she represent?
7. Who is the Governor General of Australia?
8. What is the name of this national emblem?

9. If you were in Australia's national capital city, which city and state or territory would you be in? Do not use abbreviations.
10. Why is Edmund Barton a significant person in our history?
11. Who was the first person to claim this country as part of the British Empire on Friday, April 20, 1770
12. Why is the *acacia pycnantha* important to Australians?
13. Match these capital cities to their states or territories but do not use abbreviations.
    - Hobart
    - Darwin
    - Perth
    - Sydney

    - Brisbane
    - Melbourne
    - Adelaide
14. You are standing on top of the highest mountain on the Australian mainland. Where are you?
15. What do the letters A.N.Z.A.C. stand for?
16. What is the approximate population of Australia?
    - 25 500 000
    - 20 275 000
    - 19 000 000
    - 18 225 000
17. Australia Day is January 26. Which event do we celebrate?
18. Which Australian poet created the character known as The Man from Snowy River?
19. Which Australian singer had a national hit with a song called *The Pub with No Beer*?
20. If you sailed around Australia's coastline, would you travel approximately
    - 360 kilometres
    - 3 600 kilometres
    - 36 000 kilometres
    - 360 000 kilometres

I am at the top of a mountain, first climbed by a European in 1840 and named by Polish explorer Count Paul Edmund Strzelecki. He named it after one of his country's heroes because he thought it looked like his tomb. While it stands in Ngarigo land, it is yet to be given an official indigenous name although Kunama Namadgi has been proposed.

The climb to the top was quite easy - a 6.5 kilometre walk along a raised walkway after I got off the chairlift from Thredbo and a short stop at Australia's highest public toilet at Rawson's Pass. The walkway protects the fragile alpine environment.

The summit is 2228 metres above sea level, making it Australia's highest mainland mountain and from it I can see other mountains of the Main Range of the Great Dividing Range, including Mt Townsend which is the second highest mountain, Mt Carruthers and Mt Twynam. They are all part of a national park which shares the name of this mountain.

If you wish to follow in my footsteps, you need to come here between November and April, although if you are skier you can come during the winter..

Where am I?

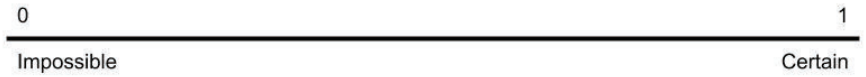
Chance

Term 2 Week 2

Recognise that probabilities range from 0-1

Probability on a number line

The probability of an event occurring or not can be seen on a scale from 0 (impossible) to 1 (certain).



The range is quite open though, and there are other words that can be used to describe situations which are less certain.

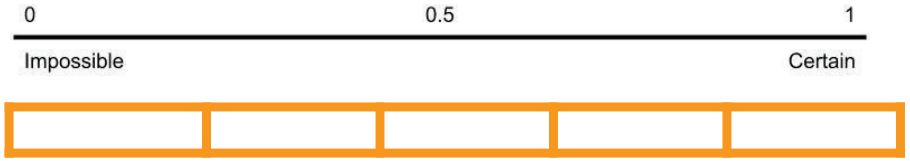
Where would you put words like:

Possible, unlikely, likely, 50-50, equally likely, probable, doubtful

Probability on a number line

Place the following words in the correct box below. Either at 0, at 0.5, at 1 OR in between 0 and 0.5 and between 0.5 and 1

Possible, unlikely, likely, 50-50, equally likely, probable, doubtful



Probability Words

Based on the scenario in the first box, put the best probability word in the middle box and a number that goes with it in the third box:

Scenario	Impossible, unlikely, possible, 50-50, equally likely, likely, certain	0, 0.5, 1, 0>0.5, 0.5>1
E.g. The sun turning blue.		
Being given school work tomorrow.		
At some point of the day it rains		
In a year you will be older		

Probability Words

Scenario	Impossible, unlikely, possible, 50-50, equally likely, likely, certain	0, 0.5, 1, 0>0.5, 0.5>1
A baby is born somewhere		
You will play on your iPad today		
You will "hand in" your work today		
You will wake up and your hair will be blue		
There will be an error with your device today		

Probabilities of Outcomes Using Fractions

What is a Probability

A probability is the likelihood that an event will occur.

We often use words like impossible or certain to describe the probability of an event?

Come up with a word that describes the probability that it will rain tomorrow:

Come up with a word that describes the probability that the next page is going to be written in German.

Probability as a Fraction - Dice

Probabilities can also be more specific.

We can determine a probability using fractions.

As we have previously learnt, in a fraction the denominator (number at the bottom) tells you how many possible outcomes or pieces you can choose from. In a regular six-sided die, there are 6 possible choices (1-6)

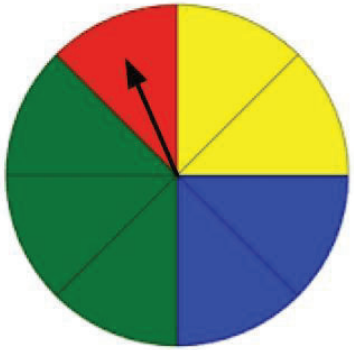
The numerator is how many parts of the denominator are chosen. So if we choose a single number...that would be 1 number out of 6 possible choices or 1/6. If we choose to focus on the even numbers (2, 4, 6) that would be 3 numbers chosen out of 6 possible choices or 3/6 → ½.

Probability as a Fraction - Spinner

In the spinner, we have 4 different colours. But we have 8 different triangles, so the total amount of choices is 8...therefore the denominator is 8.

The numerator is how many triangles are a particular colour. Therefore the probability of the spinner landing on green is 3 out of the 8 or ⅜.

Blue = 2/8, Red = 1/8, Yellow = 2/8



Less, Equally or More Likely

Decide whether it is less, equally or more likely for the following probabilities to occur:
With a regular six-sided die:

1. Probability that a 1 or a 3 is rolled?
2. Probability that an even number is rolled instead of a 4?
3. Probability that multiple of 3 is rolled instead of an odd number.

With the spinner from the previous page:

4. Probability that spinner lands on a red instead of a green?
5. Probability that spinner lands on a blue or yellow?
6. Probability that spinner lands on green rather than blue?

1.
2.
3.
4.
5.
6.

Probability Questions

Write the probability of the following happening, as a fraction.
With a regular six-sided die:

1. Rolling a 2.
2. Rolling an even number
3. Rolling a 4 or under
4. Rolling an odd number under 4.
5. Rolling a multiple of 3.

With the spinner from the previous page:

6. Spinning a yellow
7. Spinning a red
8. Spinning a blue or yellow
9. Spinning a colour that is not green.
10. Spinning a purple.

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

Problem Solving

Question 1

There are 5 students in Mr. Parker's art class. He would like to give each of his students 6 stickers to use in a project they are doing. Mr. Parker looked in his desk drawer and found that he had 2 blue stickers, 3 times as many red stickers as blue stickers, and 4 more green stickers than red ones.

Does Mr. Parker have enough stickers for everyone?
If not, how many more stickers does Mr. Parker need?

Imagine that Mr. Parker had 40 stickers altogether.
How many stickers would each student be able to get then?

Q1

Question 2

There are 3 boys and 5 girls standing by the entrance to the school carnival.
Each child is holding three balloons.
One-sixth of the balloons are red.
There are twice as many green balloons as red ones.
The rest of the balloons are blue.

Find the number of balloons in each color.

Q1

Question 3

Vicky decided to hike a 12 mile trail through the Blue Hills.
She began her hike at 9:20 in the morning.
After Vicky had traveled 1/3 of the distance she looked at her watch again.
The time was 10:05 am.

If Vicky continues to walk at the same pace, what time will she finish the hike?

Q1

Question 4

A group of 120 students went to Fun Park for the day.
The two best rides at the park are the Super Looper and the Jet Coaster.
Two-fifths of the group waited in line for the Super Looper.
The rest of the group waited to ride the Jet Coaster.
A single ride on the Super Looper lasts 10 minutes and can take 8 people at a time.
A single ride on the Jet Coaster lasts 8 minutes and can take 12 people at a time.

Which group will finish their ride first?

Q1

Probabilities using Fractions, Decimals and Percentages

Lessons 4 and 5

Probability using Percentages and Decimals

We've already measured the probability of rolling a dice and probability of spinning a specific colour using fractions.

We can also determine the probability using percentages and decimals.

The next few pages are guides to how to convert between fractions, decimals and percentages.

It is important to read each page carefully, you may need to re-read some slides to understand how to convert between each one.

There will be videos explaining each method, be sure to watch these!

Fraction to Decimal

Look at your fraction as a division question.

E.g.1) $\frac{1}{2} = 1 \div 2$

Then put the question in a division bracket and solve.

E.g. 1) $\frac{1}{4}(1 \div 4)$

$$4\overline{)1.0^{2}0}\quad 0.2\ 5$$

E.g. 2) $\frac{3}{5}\ (3 \div 5)$

$$5\overline{)3.0}\quad 0.6$$

Fraction to Percentage

Follow the steps of "Fraction to Decimal" then multiply the number by 100.

E.g. $\frac{1}{2} = 0.5$

0.5

2)1.0

0.5 x 100 = 50

Therefore, $\frac{1}{2} = 50\%$

Percent ⟷ Decimal

Percent to Decimal

Move the invisible decimal two places to the left.

E.g. 50% = 0.5

24% = 0.24

Decimal to Percent

Move the invisible decimal two places to the right.

E.g. 0.1 = 10%

0.84 = 84%

Decimal to Fraction

Count the digits in the number to the right of the decimal point. That will tell you how many zeros your number should have in your denominator.

E.g.

0.25 (2 digits) = 25/100

0.623 (3 digits) = 623/1000

Percentage to Fraction

Percentages are always out of 100. Put the percentage as the numerator, and 100 as the denominator.

E.g. 10% = 10/100

89% = 89/100

Look Back to Lesson 1

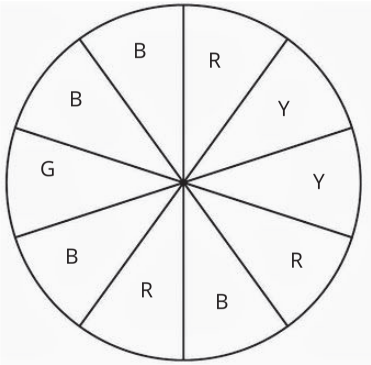
Use your knowledge of the probability of a six-sided dice and of a spinner to determine the answers to the next two pages.

Six-sided Dice

Circumstance	Fraction	Decimal	Percentage
1 number of 6	1/6	0.167	16.7%
2 numbers of 6	2/6		
3 numbers of 6	3/6		
4 numbers of 6	4/6		
5 numbers of 6	5/6		
All numbers chosen	6/6		

10 Sided Spinner

Circumstance	Fraction	Decimal	Percentage
Spinning a Green	1/10	0.1	10%
Spinning a Yellow	2/10		
Spinning a Red	3/10		
Spinning a Blue	4/10		
Spinning a Red or Yellow	5/10		
Not spinning a blue	6/10		
R = Red, Y = Yellow, B = Blue, G = Green			



Extension - Deck of Cards

Circumstance	Fraction	Decimal	Percentage
1 card of the deck	1/52	0.019	1.9%
A specific suit e.g. any diamond	13/52 – 1/4		
A specific card, suit doesn't matter. E.g. Any 2 or any K	4/52 – 1/13		
Ace-10 any suit	40/52 – 10/13		
Ace-10 a specific suit	5/26		
A royal (J, Q, K) any suit	12/52 – 3/13		
A royal of a specific suit	3/52		
An even number (2, 4, 6, 8) of any suit	16/52 – 4/13		

ANSWERS

Chance

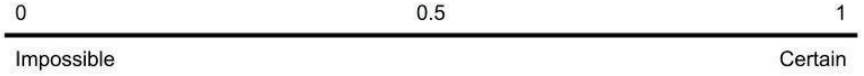
Term 2 Week 2

Recognise that probabilities range from 0-1

Probability on a number line

Place the following words in the correct box below. Either at 0, at 0.5, at 1 OR in between 0 and 0.5 and between 0.5 and 1

Possible, unlikely, likely, 50-50, equally likely, probable, doubtful



Impossible	Unlikely Doubtful	50-50 Equally Likely Possible	Likely Probable	Certain

Probability Words

Based on the scenario in the first box, put the best probability word in the middle box and a number that goes with it in the third box:

Scenario	**Impossible, unlikely, possible, 50-50, equally likely, likely, certain**	**0, 0.5, 1, 0>0.5, 0.5>1**
E.g. The sun turning blue.	Impossible	0
Being given school work tomorrow.	Likely	0.5>1
At some point of the day it rains	Possible	0.5
In a year you will be older	Certain	1

Probabilities of Outcomes Using Fractions

Probability Words

Scenario	Impossible, unlikely, possible, 50-50, equally likely, likely, certain	0, 0.5, 1, 0>0.5, 0.5>1
A baby is born somewhere	Certain	1
You will play on your iPad today	Likely	0.5>1
You will "hand in" your work today	50-50	0.5
You will wake up and your hair will be blue	Unlikely	0>0.5
There will be an error with your device today	Equally Likely	0.5

What is a Probability

A probability is the likelihood that an event will occur.

We often use words like impossible or certain to describe the probability of an event?

Come up with a word that describes the probability that it will rain tomorrow:

Possible, 50-50, equally likely

Come up with a word that describes the probability that the next page is going to be written in German.

Unlikely

Less, Equally or More Likely

Decide whether it is less, equally or more likely for the following probabilities to occur:
With a regular six-sided die:

1. Probability that a 1 or a 3 is rolled?
2. Probability that an even number is rolled instead of a 4?
3. Probability that multiple of 3 is rolled instead of an odd number.

With the spinner from the previous page:

4. Probability that spinner lands on a red instead of a green?
5. Probability that spinner lands on a blue or yellow?
6. Probability that spinner lands on green rather than blue?

1. Equally likely
2. More likely
3. Less likely
4. Less likely
5. Equally likely
6. More likely

Probability Questions

Write the probability of the following happening, as a fraction.
With a regular six-sided die:

1. Rolling a 2.
2. Rolling an even number
3. Rolling a 4 or under
4. Rolling an odd number under 4.
5. Rolling a multiple of 3.

With the spinner from the previous page:

6. Spinning a yellow
7. Spinning a red
8. Spinning a blue or yellow
9. Spinning a colour that is not green.
10. Spinning a purple.

1. 1/6
2. 3/6 or 1/2
3. 4/6 or 2/3
4. 2/6 or 1/3
5. 2/6 or 1/3
6. 2/8 or 1/4
7. 1/8
8. 4/8 or 1/2
9. 5/8
10. 0/8

Problem Solving

Question 1

Blue = 2
Red = 3 x 2 = 6
Green = 6 + 4 = 10

10 + 6 + 2 = 18

6 stickers for the 5 students would be 6x5=30. There are only 18 stickers.
Mr Parker does not have enough stickers.
He needs 12 more.

If Mr Parker had 40 stickers, everybody would have 8 stickers.

Question 2

8 children, 3 balloons each = 24 balloons

⅛ of balloons are red → 4 balloons
Green = 2 x red balloons → 8 balloons
Blue = 24 - 8 - 4 = 12 balloons

Question 3

⅓ of 12 miles is 4miles

4 miles in 45 minutes

8 miles left → 90 minutes

10:05 + 90 minutes =

11:35am

Question 4

Super Looper = 2/5 of 120 = 48
Jet Coaster = 3/5 of 120 = 72

Super Looper → 10 minutes/8 people
48 people = 48 divided by 8 = 6
6 goes = 6 x 10 minutes = 60 minutes

Jet Coaster → 8 minutes/12 people
72 people = 72 divided by 12 = 6
6 goes = 6 x 8 minutes = 48 minutes

Therefore Jet Coaster is faster

Probabilities using Fractions, Decimals and Percentages

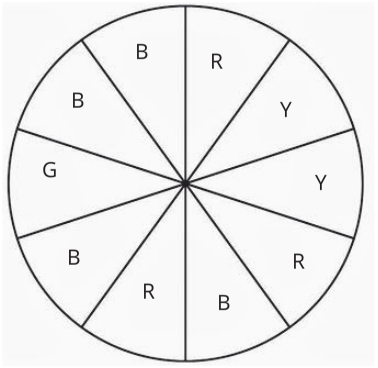
Lessons 4 and 5

Six-sided Dice

Circumstance	Fraction	Decimal	Percentage
1 number of 6	1/6	0.167	16.7%
2 numbers of 6	2/6	0.333	33.3%
3 numbers of 6	3/6	0.5	50%
4 numbers of 6	4/6	0.667	66.7%
5 numbers of 6	5/6	0.833	83.3%
All numbers chosen	6/6	1	100%

10 Sided Spinner

Circumstance	Fraction	Decimal	Percentage
Spinning a Green	1/10	0.1	10%
Spinning a Yellow	2/10	0.2	20%
Spinning a Red	3/10	0.3	30%
Spinning a Blue	4/10	0.4	40%
Spinning a Red or Yellow	5/10	0.5	50%
Not spinning a blue	6/10	0.6	60%
R = Red, Y = Yellow, B = Blue, G = Green			



Extension - Deck of Cards

Circumstance	Fraction	Decimal	Percentage
1 card of the deck	1/52	0.019	1.9%
A specific suit e.g. any diamond	13/52 – 1/4	0.25	25%
A specific card, suit doesn't matter. E.g. Any 2 or any K	4/52 – 1/13	0.077	7.7%
Ace-10 any suit	40/52 – 10/13	0.769	76.9%
Ace-10 a specific suit	5/26	0.192	19.2%
A royal (J, Q, K) any suit	12/52 – 3/13	0.231	23.1%
A royal of a specific suit	3/52	0.057	5.7%
An even number (2, 4, 6, 8) of any suit	16/52 – 4/13	0.307	30.7%

Interpret Figurative Language

Figurative language is a word or phrase that does not have a literal meaning. It is used by the writer for the sake of comparison or dramatic effect.

Figurative Language

A **metaphor** is a word or phrase that is used to make a direct comparison between two unlike things.

Personification is the act of giving non-living things human characteristics.

A **simile** uses the words 'like' or 'as' to compare one object or idea with another to suggest they are alike.

Alliteration is the repetition of the same or similar kinds of sounds at the beginning of words or in stressed syllables.

Idioms are words, phrases or expressions that cannot be taken literally.

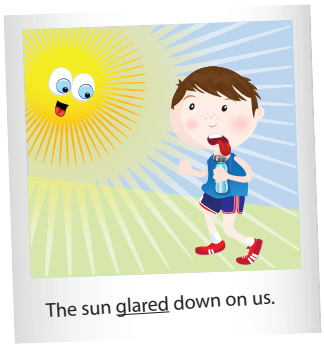
Onomatopoeia is the use of words that imitate the sounds associated with the objects or actions they refer to.

PERSONIFICATION

Personification is the act of giving non-human things human characteristics.

The car coughed to life.

The flowers danced in the breeze.



The sun glared down on us.

The camera loves him.

METAPHOR

A metaphor is a word or phrase that is used to make a direct comparison between two unlike things.

He has a heart of stone.

Ben is a pig when he eats.

Josh thinks he is the class clown.

She was showered with gifts.

SIMILE

A simile uses the words 'like' or 'as' to compare one object or idea with another to suggest they are alike.

She is as snug as a bug in a rug.

He was as busy as a bee.

Neil ran as fast as lightning.

The boat was leaking like a sieve.

ALLITERATION

Alliteration is the repetition of the same or similar kinds of sounds at the beginning of words or in stressed syllables.

ONOMATOPOEIA

Onomatopoeia is the use of words that imitate the sounds associated with the objects or actions they refer to.

racing car

sneeze

camera

cat

IDIOM

Idioms are words, phrases, or expressions that cannot be taken literally.


Hold your horses!
(To hold on or wait)


The icing on the cake.
(Something which makes a good situation even better)


Barking up the wrong tree.
(Looking in the wrong place)

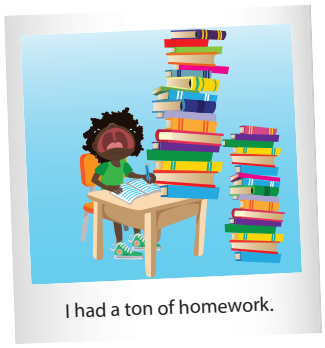

All thumbs.
(To be clumsy or awkward)

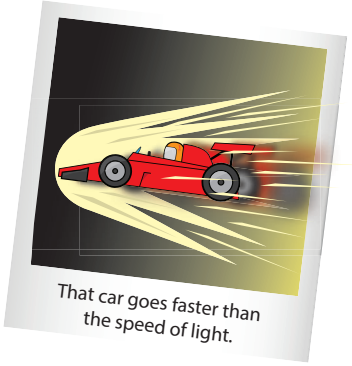
HYPERBOLE

Hyperbole is the use of exaggeration to make something better or worse than it really is.


I just ran a million miles!


I'm so hungry I could eat a horse.


I had a ton of homework.


That car goes faster than the speed of light.

OXYMORON

An oxymoron combines two contradictory terms.


only choice


dull roar


small crowd


awfully good

Weekly Quiz

1. In order to keep up with demand, Australia's largest fruit and vegetable cannery has had to double production of what food?
   a. baked beans
   b. tinned peaches
   c. tomato soup

2. True or false, Queensland's borders will be opening from Monday 4 May?

3. What has NASA announced recently?
   a. it is going to launch its first crewed mission from US soil in almost 10 years
   b. due to finance cuts they will be cancelling all missions until 2021
   c. Donald Trump's son in law is completing training to become an astronaut

4. True or false, Google reported its strongest revenue growth in nearly five years?

5. An estimated 18,000 Australians remain displaced (forced to leave their home) after the catastrophic 2019/20 bushfire season. How many new displacements were recorded around the world last year?
   a. 3.9 million
   b. 33.4 million
   c. 120 million

6. Which royal has cancelled her wedding due to the COVID-19?
   a. Princess Eugenie
   b. Princess Beatrice
   c. Princess Louise

7. What did the UK Prime Minister Boris Johnson, announce last week?
   a. he is stepping down temporarily so he can fully recover from COVID-19
   b. the arrival of his baby
   c. he is allowing pubs and bars to open this week

8. What is the name of the New Zealand based NRL team that has been given permission to enter Australia for the NRL restart?
   a. The Crusaders
   b. The Warriors
   c. The Breakers

9. What is the Swedish city of Lund using to deter crowds gathering for a festival?
   a. chicken manure
   b. water sprinklers
   c. playing the "Baby Shark" song repeatedly over loud speakers

10. Prince Harry has recorded a special message to celebrate the 75th anniversary of which children's favorite?
    a. Winnie the Pooh
    b. Thomas the Tank Engine
    c. Peppa Pig

11. Australia marked the anniversary of the arrival of the explorer James Cook, on 29 April. What anniversary was it?
    a. 150th b. 175th c. 250th

12. The fagus tree is Australia's …?
    a. largest native tree
    b. oldest native tree
    c. only winter deciduous (loses its leaves in winter) native tree

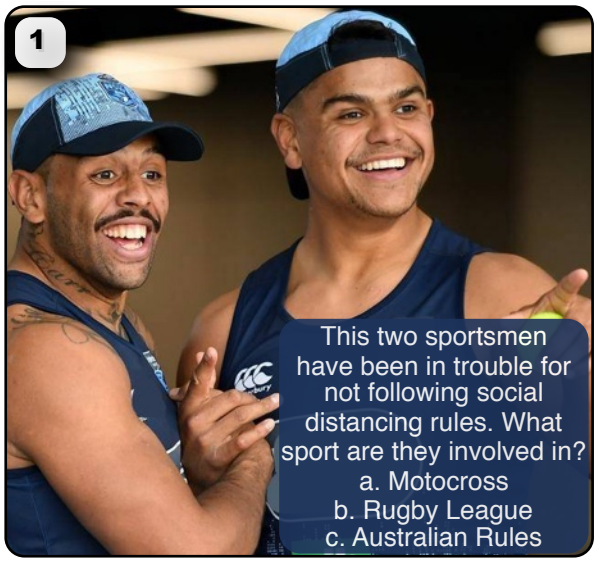
13. Authorities in a Spanish coastal resort have apologised after …?
    a. telling residents that walking on the beach for an hour everyday will stop COVID-19 from spreading
    b. spraying a beach with bleach
    c. adding too much chlorine to the water supply resulting in thousands of people suffering with stomach cramps

14. For which trending hashtag have popular celebrities Jimmy Barnes (Cold Chisel) and Magda Szubanski (Kath and Kim), shown support?
    a.#TeachersRock
    b. #TrumpRocks
    c. #MusicRocks

15. Why has a sheep called Prickles been in the news recently?
    a. she hasn't been shorn for seven years after escaping fires in Tasmania
    b. she has become best friends with a dingo pup
    c. she has given birth to a record number of lambs

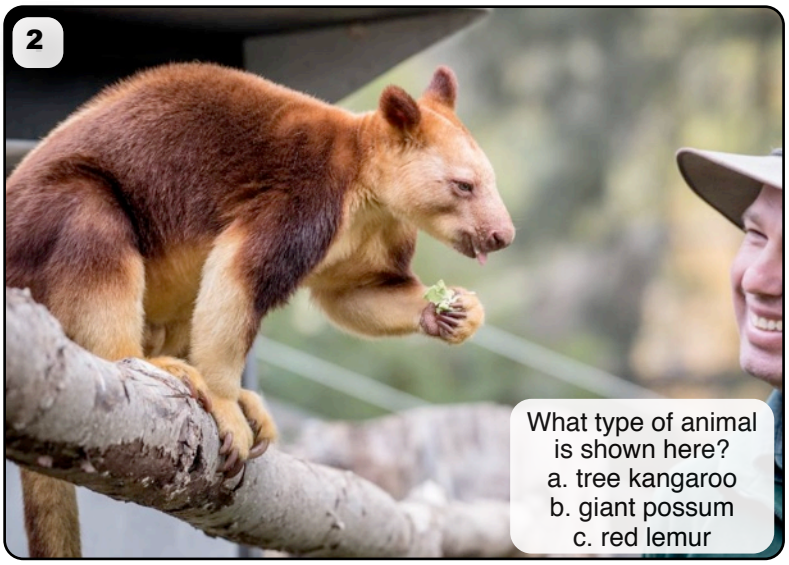
Weekly Quiz - Visual

1



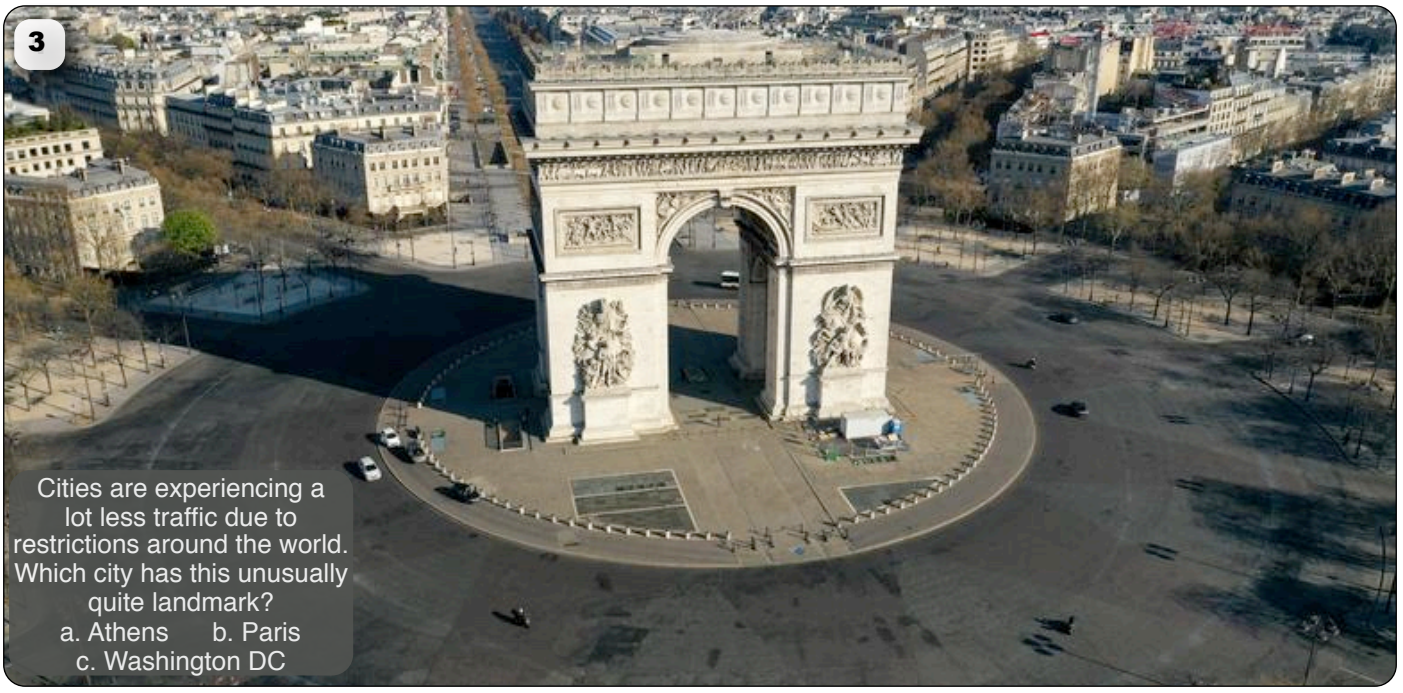
This two sportsmen have been in trouble for not following social distancing rules. What sport are they involved in?
a. Motocross
b. Rugby League
c. Australian Rules

2



What type of animal is shown here?
a. tree kangaroo
b. giant possum
c. red lemur

3



Cities are experiencing a lot less traffic due to restrictions around the world. Which city has this unusually quite landmark?
a. Athens b. Paris
c. Washington DC

4

Which country has this flag?

5

This writer has just made a £1 million donation to charities in the UK. What is her last name?

Weekly Quiz - Answers

1. In order to keep up with demand, Australia's largest fruit and vegetable cannery has had to double production of what food?
   a. baked beans - Australia's largest fruit and vegetable cannery, is producing 500,000 cans of beans a day. They are an inexpensive source of protein and contain iron and other essential minerals such as folate, manganese and vitamin B1.

2. True or false, Queensland's borders will be opening from Monday 4 May?
   False - While the stay-at-home COVID-19 restrictions will be easing, Queensland's borders will remain closed. In the state family picnics and weekend drives will be permitted, and national parks will reopen next Saturday with residents directed to travel no further than 50km from their homes.

3. What has NASA announced recently?
   a. next month it will launch its first crewed mission from US soil in almost 10 years - The rocket and the spacecraft it is carrying are due to take off from Florida's Kennedy Space Centre on 27 May, taking two astronauts to the International Space Station (ISS).

4. True or false, Google reported its strongest revenue growth in nearly five years?
   False - A lot of people are using Google during the pandemic but advertising sales are not growing at the same rate. Google actually reported its weakest revenue growth (for the first quarter of the financial year) in nearly five years.

5. An estimated 18,000 Australians remain displaced (forced to leave their home) after the catastrophic 2019/20 bushfire season. How many new displacements were recorded around the world last year?
   b. 33.4 million - Disasters were the largest source of displacement worldwide, causing almost 25 million people to flee their homes during 2019. Around 88 per cent of disaster displacement is thought to be climate-related.

6. Which royal has cancelled her wedding due to the COVID-19?
   b. Princess Beatrice - The 31-year-old royal, who is the daughter of Prince Andrew and his former wife Sarah Ferguson, was due to marry her fiancé Edoardo Mapelli Mozzi on May 29.

7. What did the UK Prime Minister Boris Johnson, announce last week?
   b. the arrival of his baby - The baby boy is Boris Johnson's sixth child and Carrie Symonds first child. Mr Johnson has recently returned to work, after a battle with coronavirus which saw him spend three nights in intensive care. Ms Symonds also suffered symptoms of the disease.

8. What is the name of the New Zealand based NRL team that has been given permission to enter Australia for the NRL restart?
   b. The Warriors - After some confusion, the Australian Border Force gave the green light for a group of 50 players and staff to depart for the NSW city of Tamworth, where they will be able to train as a group for a 14-day isolation period.

9. What is the Swedish city of Lund using to deter crowds gathering for a festival?
   a. chicken manure - The city is to spread chicken manure in its central park in an effort to deter crowds gathering to celebrate Walpurgis Night, which is marked across Scandinavia.

10. Prince Harry has recorded a special message to celebrate the 75th anniversary of which children's favorite?
    b. Thomas the Tank Engine - The Duke of Sussex introduced a new program called Thomas and Friends: The Royal Engine, which has a storyline that includes Harry's father and grandmother, Prince Charles and Queen Elizabeth II, as animated characters.

11. Australia marked the anniversary of the arrival of the explorer James Cook, on 29 April. What anniversary was it?
    c. 250th - On 29 April 1770, explorer James Cook arrived in Australia. He would later claim the region for the British crown. The anniversary is a cause of controversy as many say it is marking the "discovery" of a land which was already inhabited for millennia.

12. The fagus tree is Australia's …?
    c. only winter deciduous (loses its leaves in winter) native tree - Usually at this time of the year, thousands would flock to national parks in Tasmania to see the stunning autumn display put on by the fagus. Unfortunately, Tasmania's National Parks are currently closed.

13. Authorities in a Spanish coastal resort have apologised after …?
    b. spraying a beach with bleach - Zahara de los Atunes, near Cadiz, used tractors to spray more than 2km (1.2 miles) of beach with a bleach solution a day before Spain allowed children out of lockdown for the first time. Environmentalists say the move caused "brutal damage" to the local ecosystem.

14. For which trending hashtag have popular celebrities Jimmy Barnes (Cold Chisel) and Magda Szubanski (Kath and Kim), shown support?
    a.#TeachersRock - The debate about whether schools should be open has been prominent during the coronavirus pandemic. Each state has taken a different approach towards the opening of schools. Even though the debate continues, many took to Twitter to thank and praise the teachers on the front line.

15. Why has a sheep called Prickles been in the news recently?
    a. she hasn't been shorn for seven years after escaping fires in Tasmania - The family's farm was burnt by the 2013 fires and 50 kilometres of fencing had to be replaced. It was during that time that Prickles got trapped in the bush at the back of the farm where she remained for the past seven years, missing shearing seasons.

VISUAL ANSWERS

1. b. Rugby League - Latrell Mitchell and Josh Addo-Carr ignored social distancing rules during a trip with 12 others on the NSW mid-north coast. They have both since copped large fines from the NRL.

2. a. tree kangaroo - There are 14 species of this endangered animal worldwide, of which 12 are native to the island of New Guinea.

3. b. Paris - The Arc de Triomphe is one of the most famous monuments in Paris. It honours those who fought and died for France in the French Revolutionary and Napoleonic Wars and serves as an extremely busy roundabout.

4. Argentina

5. Rowling - The creator of the Harry Potter adventures, is donating £1m to charities supporting vulnerable people during the lockdown. Half of the money will go to Crisis which helps homeless people, and half to Refuge to support victims of domestic abuse.

Plant Health

WEDNESDAY WEEK 2

How are nutrients depleted (used up) from the soil?

You will need a plastic cup, a straw (optional), a marker and drinkable water.

1. Mark out a cup with 8 levels as on the picture to the left
2. Fill it with water up to level 5. You will represent the plants as you drink the water.
3. The water is representing the nutrients in the soil (not water)
4. As seeds are planted and growing, they need extra nutrients (drink the cup until level 3)
5. As plants mature and flower, followed by seeds or fruit they need additional nutrients (drink till level 1)
6. When the pants are harvested the field rests (water levels remain at 1)
7. The seeds of next season begins to grow (drink the last of the water)
8. As they mature and flower they need more nutrients (try to drink more water).

So you now can see how nutrients are depleted from the soil to produce plants.

- Could farmers add **too many** nutrients to their fields?

  Yes

- Could farmers also **not add enough** nutrients?

  Yes

- If growing plants depletes soil nutrients, why should farmers continue to grow crops?

  To produce our food so we can eat!

What is SUSTAINABILITY?

Watch the Journey 2050: Plant Health Video

After you watch answer the following questions:

- What three primary nutrients are necessary for healthy plant growth, and how can they be replenished?
- How does a plant resist disease and pests?
- What are best management practices?
- What are the 4Rs?

You will find the answers also in the following slides

SOIL

Why does soil matter?

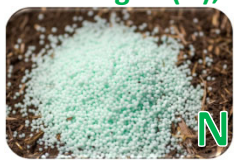
Crops that **we eat** grow in the soil like potatoes, lettuce and beans as well as the crops we use to **feed livestock** that provide us with foods like meat, milk and eggs.

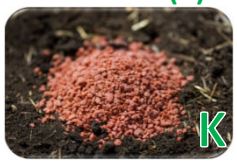


NUTRIENTS

What three primary nutrients do plants need to grow?

Nitrogen (N), Phosphorus (P) and Potassium (K)





Remember the cup and water (bank) analogy for stored nutrients. (An analogy is using something to compare to another to help explain something)

How are nutrients replenished?

NUTRIENTS

- Where do plant nutrients come from?

Nature!

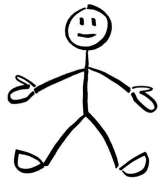
HOW DOES OVERALL PLANT HEALTH AFFECT A PLANT'S ABILITY TO RESIST DISEASE AND PESTS?

OVERALL PLANT HEALTH

Which person is more likely to get sick if exposed to the same contagious illness?

Eats a balanced diet, exercises and is in overall good health

Eats a poor diet, does not exercise and is generally less healthy



OVERALL PLANT HEALTH

Insects

Diseases

Nutrient Deficiencies

Weed Infestations

What can make a plant sick or destroy a plant?

OVERALL PLANT HEALTH

Other benefits to maintaining optimal plant health:

- Plants will be better able to resist pests and disease, thereby requiring less human intervention.
- Plants will grow vigorously and be able to outcompete (grow faster than) weeds.
- Plants will grow to their genetic potential and produce more food.

BEST MANAGEMENT PRACTICES

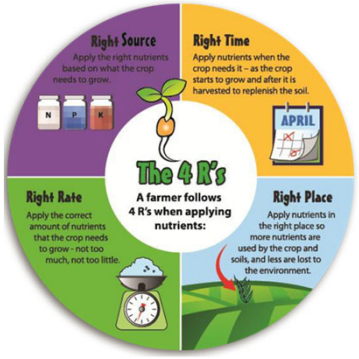
Choices come in varying degrees…

Poor **Good** **Best!**

"Best Management Practice" (BMP) refers to the best way to do something. Click the link to watch the video.

Can you think of BMPs that protect the soil?

4R NUTRIENT STEWARDSHIP



CANOLA CROP

Manufactured fertilizers are responsible for 50% of the world's food supply.

Thin Questions

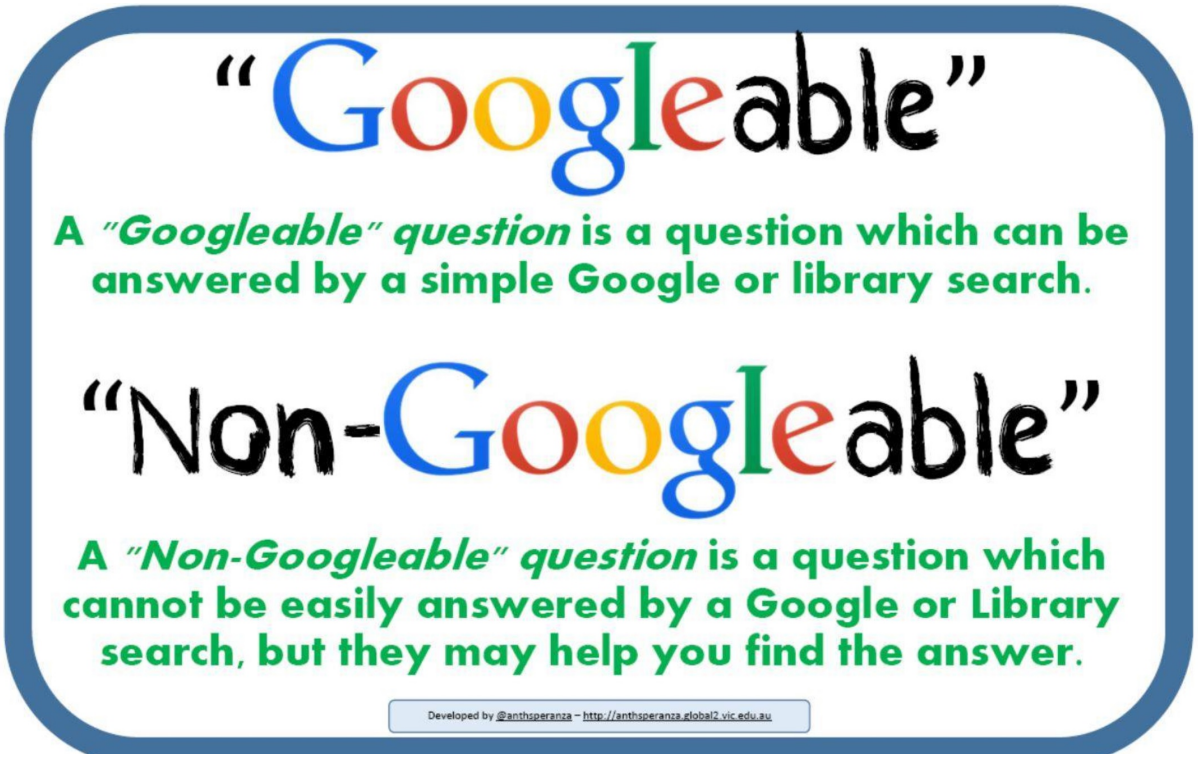
~ Right There ~

- Who?
- What?
- Where?
- When
- How many...?

Thick Questions

~ Think and Search ~

- **What if...?**
- **How did...?**
- **Why did...?**
- **What would happen if...?**
- **What might...?**
- **How would you feel if...?**
- **What do you think...?**


"Googleable"
A "Googleable" question is a question which can be answered by a simple Google or library search.
"Non-Googleable"
A "Non-Googleable" question is a question which cannot be easily answered by a Google or Library search, but they may help you find the answer.
Developed by @anthsperanza – http://anthsperanza.global2.vic.edu.au


NSW RURAL
FIRE SERVICE


Michelle J


NSW RURAL
FIRE SERVICE

Journey 2050™

Plant Health

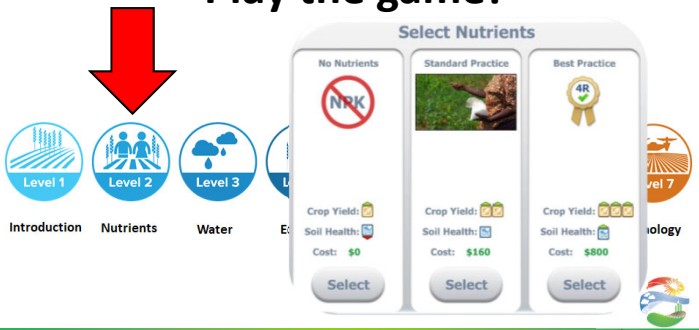
THURSDAY WEEK 2

SUSTAINABILITY FARMING GAME
LEVEL 2

Journey 2050

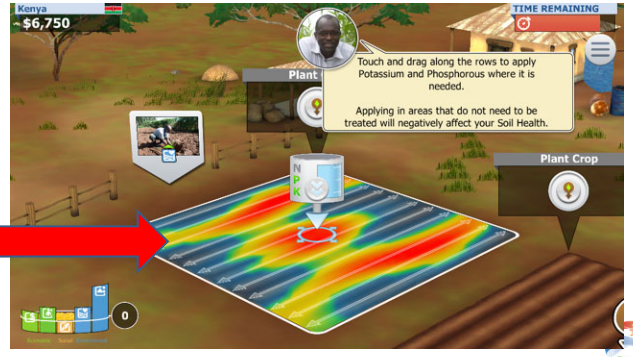
SUSTAINABILITY FARMING GAME
LEVEL 2 NUTRIENTS

Play the game!



Journey 2050

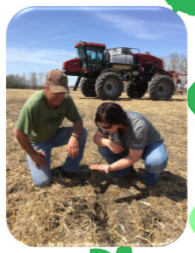
SLIDE OVER RED/YELLOW AREAS



Journey 2050

GAME EVALUATION

- Which nutrient practice was best?
- If nutrients are **over** or **under** applied what impacts did you notice on crop yields, environment or economics?
- How can farmers be sure they are applying nutrients in a sustainable way?



WRAP-UP

- Agriculture provides our food supply. Growing our food requires the use of nutrients, which must be returned to the soil through proper application in order to continue growing healthy crops.
- Crops grown in soil without proper nutrients are less healthy, less resistant to insects and diseases, and produce a less abundant harvest than crops grown in nutrient-rich soil.
- When plant health is managed using best practices farmers can be more successful in harvesting an abundant crop of healthy foods.

ENRICHING ACTIVITIES

- Word Search
- Crossword Puzzle
- Matching Activity
- Case Studies: Pests and Diseases
- Science of Farming: Recap

CASE STUDY 1

Farmers: Bob & Sue Jenson
Location: Minnesota, USA
Crop: Soybeans
Problem: Bean Leaf Beetle

Agronomist Report: An agronomist inspected this crop and noticed that all stages of plant growth were impacted. There is a decrease in crop yield and poor seed quality. The beetles are feeding on pods and breaking the pods, as well as scarring the leaves allowing for fungus to enter. Last, the agronomist report said this beetle was carrying a virus to the plant called bean pod mottle virus, which is mainly a concern if the Jenson's are selling their soybeans for food because it affects the seed coat quality.

1. Research the Bean Leaf Beetle
2. Identify at least one solution to address this pest

CASE STUDY 2

Farmers: Shad & Lita Meena
Location: Kenya, Africa
Crop: Maize
Problem: Maize Lethal Necrosis Disease (MLND)

Agronomist Report: An agronomist inspected this crop and noticed a 30 percent loss in yields! The agronomist could see the leaves were dry, there were malformed ears, sometimes even no ears on the plants, and some of the ears were rotting. The agronomist let the Meena family know the disease was likely from a long drought, poor soil fertility and poor agricultural practices.

1. Research the Maize Lethal Necrosis Disease.

2. Identify at least one solution to address this disease

SCIENCE OF FARMING: RECAP

- Farm practices and technology are constantly evolving.
  - Conservation practices (4R Nutrient Stewardship System, contour plowing, terracing, windbreaks, cover crops, crop rotation, no-till farming, etc.)
  - Cultural controls (varied planting seasons, etc.)
  - New farm equipment
  - New technology (Global Positioning System, weather monitoring system, soil PH and temperature analysis, new seed varieties, etc.)
  - Biological controls (ladybugs, etc.)
  - Chemical controls (pesticides and herbicides)

SCIENCE OF FARMING: RECAP

Goal: Grow a healthy crop and raise healthy livestock while balancing a budget and environmental footprint

Reality: Farmers must use the resources they have to make informed decisions

- Does a Kenyan farmer have the same equipment as a North American farmer?
- How does an organic farmer vs a conventional farmer respond to a problem with nutrients, pests or diseases?

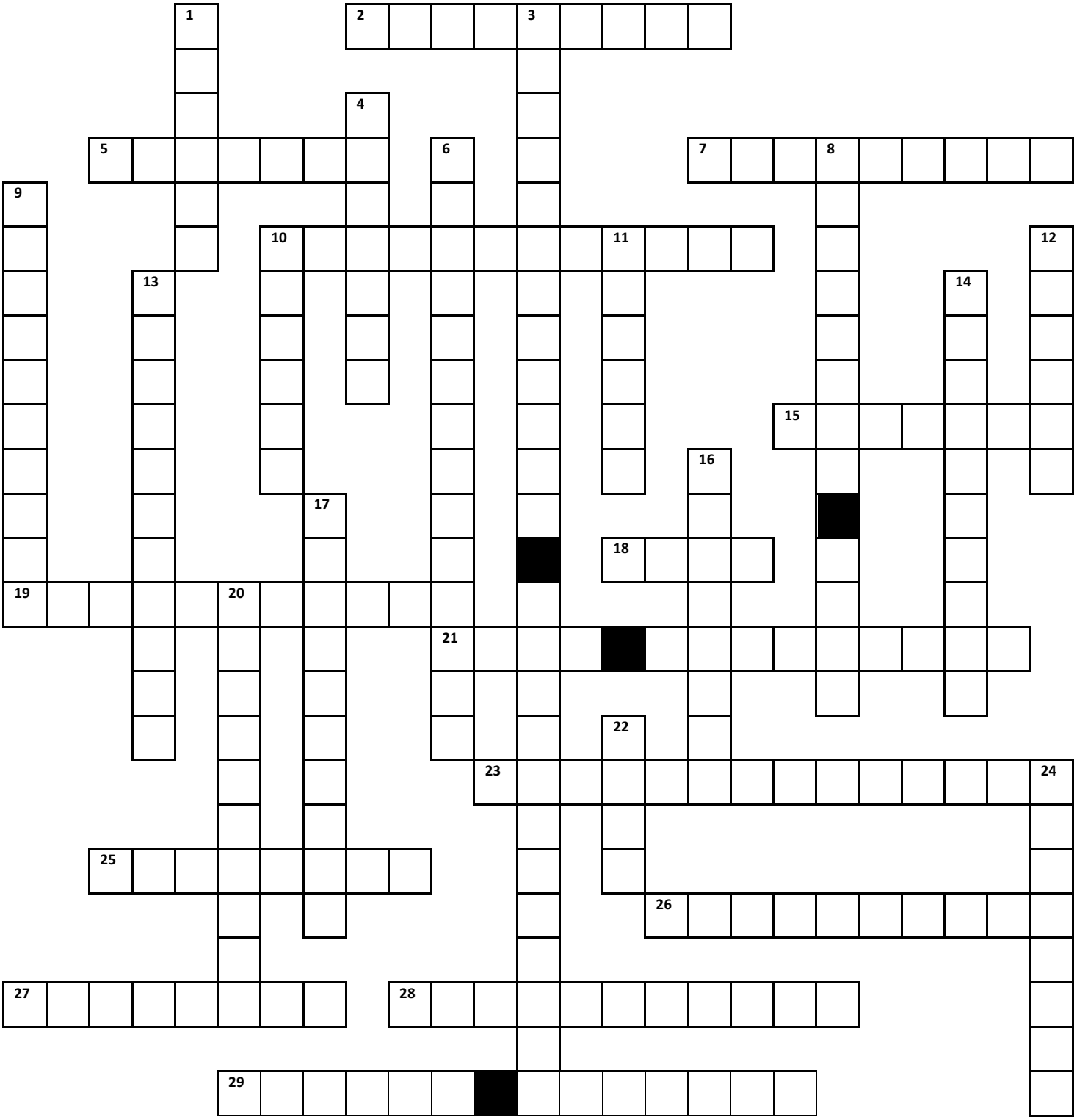
There is no one-size-fits-all solution.
Every farmer grows the healthiest plants and animals they can.

A farmer's livelihood depends on sustainable practices.

Student Handout 3: Crossword Puzzle

Name: _____

Date: _____



Sustainable
Agriculture
Tillage
Crop
Yields
Conservation Technologies
Inputs
Nutrients
Seed Varieties
Fertilizer
Irrigation
Environment
Native Species
Wetlands
Riparian Area
Habitat
Bacteria
Soil
Photosynthesis
Climates
Social
Malnourished
Healthcare
Infrastructure
Economic
Market
Efficient
Deplete
Innovation
Techniques

Student Handout 3: Crossword Puzzle

Across

2. The ability to achieve desired results without wasting materials, time or energy.

5. The preparation of the land for growing crops. Farmers use conservation _____ to minimize soil erosion and moisture loss.

7. Humans consume plants and animals to obtain nourishment from these.

10. A health condition resulting from not eating enough food or not eating enough healthy food.

15. The place where a plant or animal naturally lives.

18. The upper layer of the Earth that may be dug up or plowed, and in which plants grow.

19. Meeting the economic, social and environmental needs of the present without compromising the needs of the future.

21. Different kinds of the same type of seeds that can be planted to grow crops more successfully in different climates.

23. The basic equipment and structures (such as roads and bridges) that are needed for a country, region or organization to function properly.

25. Tiny living things that are found in almost all environments including soil, water, organic matter and living bodies; most are harmless and many are beneficial.

26. A new idea, practice or product.

27. These marshy bodies of water are the kidneys of the environment, filtering excess nutrients and helping water levels during floods.

28. The natural world (associated with soil health, habitats, water and green house gas emissions)

29. Plants or animals that naturally live in an area. For example, deer are a native species in Canada; zebras are not! We should be careful not to introduce non-native species to an area as they can become invasive, taking habitat and resources away from native species.

Down

1. To produce or provide something: a measurement of the amount of crop that was harvested per unit of land. (eg. If three grains are harvested for each grain planted it is 1:3)

3. Scientific or technical ways to sustainably use and protect natural resources in order to prevent loss or waste.

4. To use most or all of something; to greatly reduce the amount of something.

6. The process by which a plant turns water and carbon dioxide into food when the plant is exposed to sunlight.

8. A space between the land and the waterway ideally filled with native grass, bushes and trees.

9. Ways of doing things by using special knowledge or skill.

10. A place where products are bought and sold.

11. Relating to people or society in general; the welfare of human beings as members of society (associated with food, education, health and infrastructure).

12. Things that are put into a machine or system such as fuel, seed and fertilizer.

13. The science or practice of farming; cultivating the soil, producing crops or raising livestock.

14. Natural plant nutrients manufactured so farmers can provide the exact minerals crops need to grow: the primary nutrients being nitrogen, phosphorus and potassium.

16. The usual weather conditions in a particular place or region.

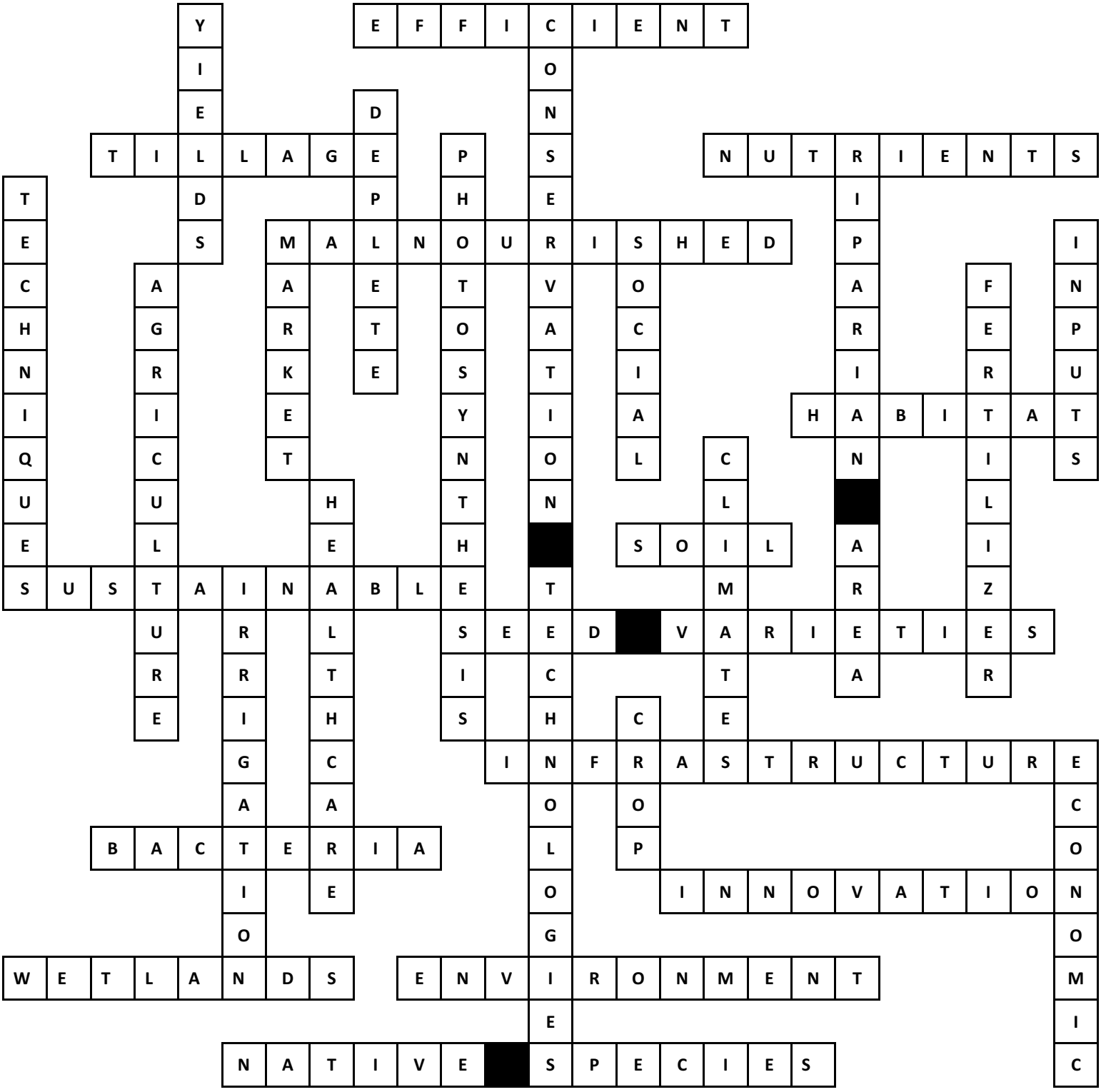
17. Efforts to maintain or restore a person's health especially by trained and licensed professionals; nurses and doctors work in this industry.

20. The artificial application of water to the land or soil to assist plant growth.

22. Plants that are grown by farmers, such as wheat, barley, peas, corn and canola.

24. Relating to the process or system by which goods and services are produced, sold and bought (associated with profits, jobs, incomes and community).

Answer Key - Student Handout 3: Crossword Puzzle



Student Handout 4: Matching Activity

Name: _____

Date: _____

1	_____	Sustainable	a.	the ability of a business owner (e.g. farmer) to sell his or her goods to other people or companies
2	_____	Agriculture	b.	an item that is purchased with the hope that it will generate income in the future
3	_____	Economic	c.	scientific or technical ways to sustainably use and protect natural resources in order to prevent loss or waste
4	_____	Social	d.	the simple planting of a seed starts a chain of events that help the farmer, community and eventually the world
5	_____	Healthcare	e.	the best way of doing something. In farming _____ enable us to grow more with less
6	_____	Investment	f.	a space between land and the waterway, ideally filled with native grass, bushes and trees
7	_____	Infrastructure	g.	the emission into the Earth's atmosphere of various gases, especially carbon dioxide, that contribute to the warming of the Earth's surface and the air above it
8	_____	Soil	h.	the preparation of the land for growing crops. Farmers use conservation _____ to minimize soil erosion and prevent moisture loss.
9	_____	Habitat	i.	these marshy bodies of water are the kidneys of the environment, filtering excess nutrients and helping water levels during floods
10	_____	Yields	j.	meeting the economic, social and environmental needs of the present without compromising the needs of the future
11	_____	Wetlands	k.	efforts to maintain or restore a person's health especially by trained and licensed professionals; nurses and doctors work in this industry
12	_____	Irrigation	l.	the place where a plant or animal naturally lives
13	_____	Tillage	m.	the upper layer of the Earth that may be dug up or plowed and in which plants grow
14	_____	Conservation technologies	n.	the process by which a plant turns water and carbon dioxide into food when the plant is exposed to sunlight
15	_____	Market Access	o.	relating to the process or system by which goods and services are produced, sold, and bought (associated with profits, jobs, incomes and community)
16	_____	Riparian Area	p.	humans consume plants and animals to obtain nourishment from these
17	_____	Seed varieties	q.	the basic equipment and structures (such as roads and bridges) that are needed for a country, region or organization to function properly
18	_____	Bacteria	r.	tiny living things that are found in almost all environments including soil, water, organic matter, and living bodies; most are harmless and many are beneficial
19	_____	Nutrients	s.	a new idea, practice or product
20	_____	Innovation	t.	different kinds of the same type of seeds that can be planted to grow crops more successfully in different climates
21	_____	Fertilizer	u.	the artificial application of water to the land or soil to assist plant growth
22	_____	Photosynthesis	v.	a measurement of the amount of a crop that was harvested per unit of land. (e.g. If three grains are harvested for each grain planted it is 1:3_____)
23	_____	Best management practices	w.	natural plant nutrients manufactured so farmers can provide the exact minerals crops need to grow, the primary nutrients being nitrogen, phosphorus, and potassium
24	_____	Ripple Effect	x.	the science or practice of farming; cultivating the soil, producing crops and raising livestock
25	_____	Greenhouse gas emissions	y.	relating to people or society in general; the welfare of human beings as members of society (associated with food, education, health and infrastructure)

Answer Key - Student Handout 4: Matching Activity

1	j.	Sustainable	a.	the ability of a business owner (e.g. farmer) to sell his or her goods to other people or companies
2	x.	Agriculture	b.	an item that is purchased with the hope that it will generate income in the future
3	o.	Economic	c.	scientific or technical ways to sustainably use and protect natural resources in order to prevent loss or waste
4	y.	Social	d.	the simple planting of a seed starts a chain of events that help the farmer, community and eventually the world
5	k.	Healthcare	e.	the best way of doing something. In farming _____ enable us to grow more with less
6	b.	Investment	f.	a space between land and the waterway, ideally filled with native grass, bushes and trees
7	q.	Infrastructure	g.	the emission into the Earth's atmosphere of various gases, especially carbon dioxide, that contribute to the warming of the Earth's surface and the air above it
8	m.	Soil	h.	the preparation of the land for growing crops. Farmers use conservation _____ to minimize soil erosion and prevent moisture loss.
9	l.	Habitat	i.	these marshy bodies of water are the kidneys of the environment, filtering excess nutrients and helping water levels during floods
10	v.	Yields	j.	meeting the economic, social and environmental needs of the present without compromising the needs of the future
11	i.	Wetlands	k.	efforts to maintain or restore a person's health especially by trained and licensed professionals; nurses and doctors work in this industry
12	u.	Irrigation	l.	the place where a plant or animal naturally lives
13	h.	Tillage	m.	the upper layer of the Earth that may be dug up or plowed and in which plants grow
14	c.	Conservation technologies	n.	the process by which a plant turns water and carbon dioxide into food when the plant is exposed to sunlight
15	a.	Market Access	o.	relating to the process or system by which goods and services are produced, sold, and bought (associated with profits, jobs, incomes and community)
16	f.	Riparian Area	p.	humans consume plants and animals to obtain nourishment from these
17	t.	Seed varieties	q.	the basic equipment and structures (such as roads and bridges) that are needed for a country, region or organization to function properly
18	r.	Bacteria	r.	tiny living things that are found in almost all environments including soil, water, organic matter, and living bodies; most are harmless and many are beneficial
19	p.	Nutrients	s.	a new idea, practice or product
20	s.	Innovation	t.	different kinds of the same type of seeds that can be planted to grow crops more successfully in different climates
21	w.	Fertilizer	u.	the artificial application of water to the land or soil to assist plant growth
22	n.	Photosynthesis	v.	a measurement of the amount of a crop that was harvested per unit of land. (e.g. If three grains are harvested for each grain planted it is 1:3_____)
23	e.	Best management practices	w.	natural plant nutrients manufactured so farmers can provide the exact minerals crops need to grow, the primary nutrients being nitrogen, phosphorus, and potassium
24	d.	Ripple Effect	x.	the science or practice of farming; cultivating the soil, producing crops and raising livestock
25	g.	Greenhouse gas emissions	y.	relating to people or society in general; the welfare of human beings as members of society (associated with food, education, health and infrastructure)

Student Handout 2: Word Search

Name: _____

Date: _____

G	H	T	B	S	N	L	X	N	O	I	T	A	C	U	D	E	X	Z	W
I	J	S	I	T	L	L	F	U	F	T	W	Y	D	V	H	P	P	H	A
K	R	E	I	U	X	X	S	B	U	E	I	T	X	U	E	Y	Y	V	P
Y	E	U	K	P	W	T	J	L	G	B	N	I	I	E	A	S	V	J	I
U	D	Q	C	N	H	H	R	A	T	E	F	R	L	C	L	E	G	P	H
T	L	I	R	I	V	B	L	Y	M	J	R	L	O	O	T	T	B	J	S
F	O	N	A	I	H	L	G	N	B	I	A	N	F	N	H	A	I	F	D
K	H	H	F	J	I	A	O	Y	G	E	S	S	G	O	C	M	L	U	R
R	E	C	E	T	H	R	B	A	W	E	T	W	F	M	A	I	L	V	A
L	K	E	Y	S	I	X	T	I	R	G	R	B	T	I	R	L	I	A	W
W	A	T	K	V	I	I	P	V	T	E	U	J	S	C	E	C	O	D	E
A	T	I	N	C	O	C	E	P	B	A	C	P	O	V	R	W	N	P	T
T	S	E	C	N	Z	L	E	Q	U	K	T	R	I	V	W	Y	R	T	S
E	E	Z	R	O	S	M	Z	R	C	G	U	S	L	G	H	P	R	T	P
R	P	X	K	O	S	I	N	H	P	S	R	Z	K	K	F	I	P	X	R
S	U	T	G	I	L	M	C	I	T	N	E	I	C	I	F	F	E	Y	O
H	W	I	A	L	S	U	S	T	A	I	N	A	B	I	L	I	T	Y	T
E	A	G	R	I	C	U	L	T	U	R	E	X	S	D	L	E	I	Y	E
D	T	I	F	O	R	P	R	L	L	T	R	C	R	O	P	S	K	O	C
I	Y	K	A	H	R	T	N	E	M	T	S	E	V	N	I	A	T	C	T

Hint: Words are forwards, backwards and diagonal

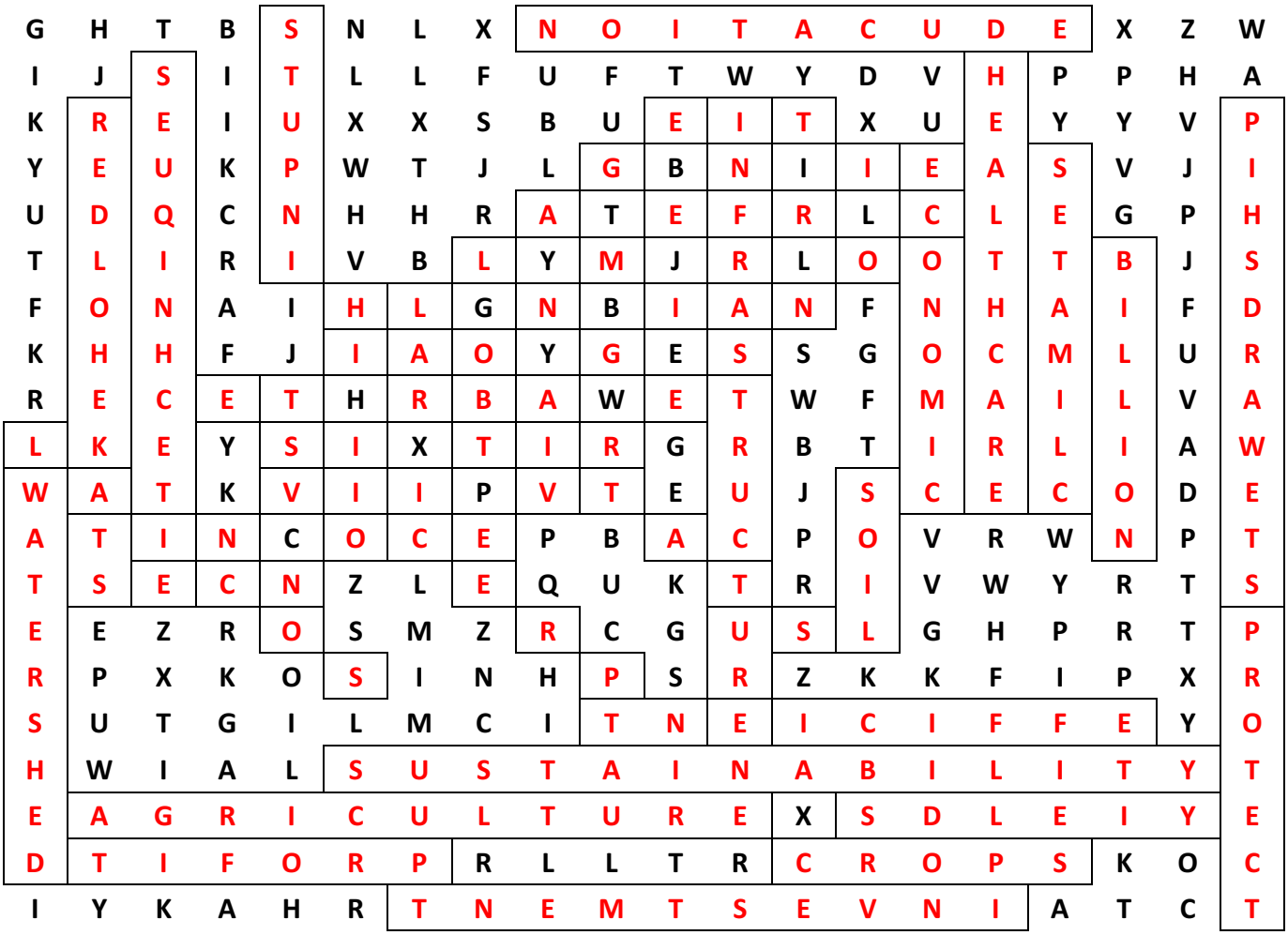
SUSTAINABILITY
AGRICULTURE
IRRIGATION
INPUTS
CROPS

SOIL
YIELDS
PRECISE
TECHNIQUES
TILLAGE

ENVIRONMENT
STEWARDSHIP
WATERSHED
CONSERVE
CLIMATES
HABITATS
PROTECT

PROFIT
BILLION
SOCIAL
EDUCATION
ECONOMIC
EFFICIENT
INVESTMENT
HEALTHCARE
STAKEHOLDER
INFRASTRUCTURE

Answer Key - Student Handout 2: Word Search



Hint: Words are forwards, backwards and diagonal

SUSTAINABILITY
AGRICULTURE
IRRIGATION
INPUTS
CROPS

ENVIRONMENT
STEWARDSHIP
CONSERVE
CLIMATES
WATERSHED
HABITATS
PROTECT

SOIL
YIELDS
PRECISE
TECHNIQUES
TILLAGE

PROFIT
BILLION
SOCIAL
EDUCATION
ECONOMIC
EFFICIENT
INVESTMENT
HEALTHCARE
STAKEHOLDER
INFRASTRUCTURE

Bushfire Perspective Checklist

Use adjectival phrases	Adjectives only	Adjectival phrases	Multiple adjectives in adjectival phrases	Positioned in varying parts of the sentences
Use a range of figurative language	Attempt at figurative language	Appropriate use of at least one form of figurative language	Appropriate use of more than one form of figurative language such as similes, metaphors, personification, onomatopoeia and alliteration.	Appropriate use of more than one form of figurative language such as idioms, hyperbole, oxymorons and allusion.
Use my 5 senses to create a description	Incorporate 1 of their senses in description	Incorporate more than 1 of their senses in description	Incorporate all 5 senses in description	Incorporate all 5 senses in description
Use critical thinking during discussions	Beginning to question acquired knowledge	Ability to question acquired knowledge	Analysing acquired knowledge	By using acquired knowledge, students improve the quality of their thinking
Use my knowledge of bushfires in my descriptions	No prior knowledge utilised	Attempts at incorporating prior knowledge	Prior knowledge incorporated	Prior knowledge seamlessly incorporated
Articulate at least 2 different perspectives of the bushfire scene	Description of scene, mostly in 3rd person	Some successful descriptions in 1st person	Descriptions in 1st person for at least 2 perspectives	Descriptions maintained in 1st person for all perspectives

Bushfire Perspective Character One/Two (circle)

Student Name:

Character

I can see… 	I can hear… 	I can smell… 	I can touch… 	I can taste…