Gorokan High School Workbook

YEAR 7


Be Active Every Day in as many ways as you can
Focus on the Present
Celebrate when things go well
Eat Healthy Meals
10 Tips to Stress Less
Play your favourite Song
Offer & Accept Help
do 1 thing at a time
do More of what's Important to you
Learn more about something that Amazes you
take regular Breaks

USEFUL CONTACTS:

LIFELINE: 13 11 14

KIDS HELPLINE: 1800 551 800

www.kidshelpline.com.au

HEADSPACE: 1800 650 890

https://headspace.org.au/eheadspace/

YOUTH BEYOND BLUE: 1300 224 630

au.reachout.com

Year 7

Humanities

Nouns

In this lesson you will learn about nouns.

- Nouns are naming words. Everything we can see or talk about is represented by a word which names it. That naming word is called a **noun**.

  Sometimes a noun will be the name for something we can touch (e.g. lion, cake, tree, computer).

- Sometimes a noun will be the name for something we cannot touch (e.g. bravery, mile, air, joy).

Here are some more examples:

- Names for animals: rat - zebra - lion - aardvark
- Names for places: house - London - factory - shelter
- Names for objects: table - frame - printer - chisel
- Names for substances: lead - nitrogen - water - ice
- Names for qualities or ideas: kindness - beauty - bravery - wealth
- Names for actions: rowing - cooking - barking - reading - listening
- Names for measures: month - inch - day - pound - ounce
- Names for people: soldier - Alan - cousin - Frenchman

All of the above are

NOUNS.

Activity 1

Read each of the nouns in the table below. Think about each word and place them into the correct noun table below.

Annie	father	Japan	catfish	pride
iPhone	toothbrush	Imax theatre	dog	Mr Jones
obedience	diamond	love	shoe	park
tiger	nurse	sadness	pencil	restaurant
iguana	farmer	library	horse	happiness

	Persons
1	
2	
3	
4	
5	

	Places
1	
2	
3	
4	
5	

	Animals
1	
2	
3	
4	
5	

	Things
1	
2	
3	
4	
5	

	Ideas
1	
2	
3	
4	
5	

Activity 2

Underline the noun in each group of words:

1. cow, run, hairy
2. pulled, plane, up
3. planting, tractor, blue
4. ball, kick, wide
5. quick, pop, building

Schools, towns, streets or countries are all places and they are also nouns.

In the following sentences, underline nouns that name a place.

1. My family went to the beach.
2. I went fishing in the ocean.
3. My dad took me to the museum.
4. I love to go to the mountains during the winter.
5. We eat our meals in the kitchen.

All the things around you are nouns too! The pencil you are holding, the chair and the door are nouns which name things.

Underline the noun in each sentence that names a thing.

1. My mum asked me to turn off the lamp.
2. The telephone is ringing.
3. We ate at the table.
4. Sarah helped me carry my books.
5. The car was too old to start

Proper Nouns are specific nouns

- A noun names a person, place or thing.
- A proper noun gives the **actual** name of the person, place or thing.
  For example: the word **beach** is a common noun, however, when we refer to a specific beach, this is a proper noun; Bondi Beach, Manly Beach etc.
- They **always** start with a capital letter.

I like going to the beach.

This is a sentence using a **common** noun—beach.

I like going to Bondi Beach.

This is the same sentence using a **proper** noun—Bondi Beach.

Activity 3

Look at the text box below. It has a mix of common nouns and proper nouns. Circle the proper nouns (proper nouns always have a capital letter).

Activity 4

Below is a list of common nouns. Next to each common noun, write a more specific proper noun. The first one has been done for you.

1. girl Monica
2. street _____
3. teacher _____
4. river _____
5. country _____
6. mountain _____
7. boy _____

CAPITAL LETTERS

We know capital letters are important in identifying **proper nouns.**

They are also important in **beginning sentences.**

Re-write the following sentences to show the proper nouns. Use **capital letters** wherever they are required.

1. roald dahl is the author of the autobiography, "boy".

   _____

2. easter occurs in april and christmas occurs in december.

   _____

Verbs are action words

- A verb is an action word. The verb is perhaps the most important part of the sentence. A verb expresses the actions, events, or states of being. They tell us what someone or something is doing, saying, thinking or feeling.

For example:

The girl **sold** homemade lemonade at the school fair.
Doctor Watson **wrote** out the prescription for the patient.
Liam **bought** the tickets to the concert during his lunch break.

Activity 5 **Underline the verb in each group ofwords**

1. cow, run, hairy
2. pulled, plane, up
3. planting, tractor, blue
4. ball, kick, wide
5. quick, pop, building

Activity 6 **Underline or highlight the verbs in each sentence. There may be more than ONE. The first one has been done for you.**

1. I love to feel the grass between my fingers and know that we can sing, dance and run all day long.
2. After I drink my milk, I eat two eggs and a piece of toast.
3. When I play outside with my brother, I like to push him on the swing.
4. At breakfast, I open the milk and pour it into a glass.
5. When I watch sad movies, I start to cry.

Activity 7

Read the paragraph below. Circle all of the verbs and then write the verbs on the lines below. Can you find all ten verbs in the passage?

Today, my mum and I baked a cake for my dad's birthday. We scooped flour into a bowl. We cracked eggs and added them to the bowl. We then mixed in milk and sugar. I spread butter in the pan and mum poured in the batter. We then placed the pan into the hot oven and waited. Finally we ate it and it was delicious. Happy birthday dad!

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

Past, Present and Future Tense

- A **verb** describes what someone or something has done, is doing or will do.
- The **tense** of a verb tells us **WHEN** an action took place. We refer to these actions as: **PAST - PRESENT - FUTURE verbs.**

For example:

The cow **jumps** over the moon	...	**PRESENT** tense it is happening now
The cow **jumped** over the moon	...	**PAST** tense it has already happened
The cow **will jump** over the moon	...	**FUTURE** tense it will happen in the future

Activity 8 Rewrite the following sentences in the past tense. The first one has been completed for you.

1. The batsman scores a magnificent century.

   The batsman **scored** a magnificent century.

2. The Prime Minister introduces a law.

   _____

3. The child plays games on a computer.

   _____

4. A lonely man finds a friend.

   _____

Past, Present and Future Tense Verbs

Below are three columns. Each column shows examples of verbs in present, past and future tense. Using this table as a guide, complete the tenses for each of the verbs in red in the sentences below. The first has been completed for you.

Present	Past	Future
She **hears**	She **heard**	She **will hear**
She **sleeps**	She	She
I **go**	I	I
They	They **sang**	They
We	We	We **will stand**
I **find**	I	I
He	He **drank**	He

Activity 9 From the word bank, insert a present tense verb into each of the following sentences.

1. A student r_____a book.
2. A guitarist s_____a guitar.
3. A jockey r_____a horse.
4. A cook b_____a cake.
5. An artist p_____a picture.
6. A footballer k_____a ball.

WORD BANK
paints
rides
bakes
strums
reads

Adjectives

Adjectives are describing words.

- We use them to describe what things look, feel, smell and taste like.
- Adjectives can be used to describe any noun.
- They give more information about nouns—they **describe** the nouns.

For example:

The **tall** girl	The **white** car	The **soft** pillow
The **sweet** orange	The **fluffy** cat	The **high** tower

Activity 1

Think of 3 adjectives that describe you.

_____ _____ _____

Think of 3 adjectives that describe the sun.

_____ _____ _____

Underline the adjectives in the sentences below and circle the nouns that the adjectives describe. The first one has been done for you.

1. The yellow (pencil) is on the desk.
2. I like to eat black liquorice.
3. My dad says I have beautiful eyes.
4. My dog just had nine puppies.

Brainstorming some adjectives of your own.

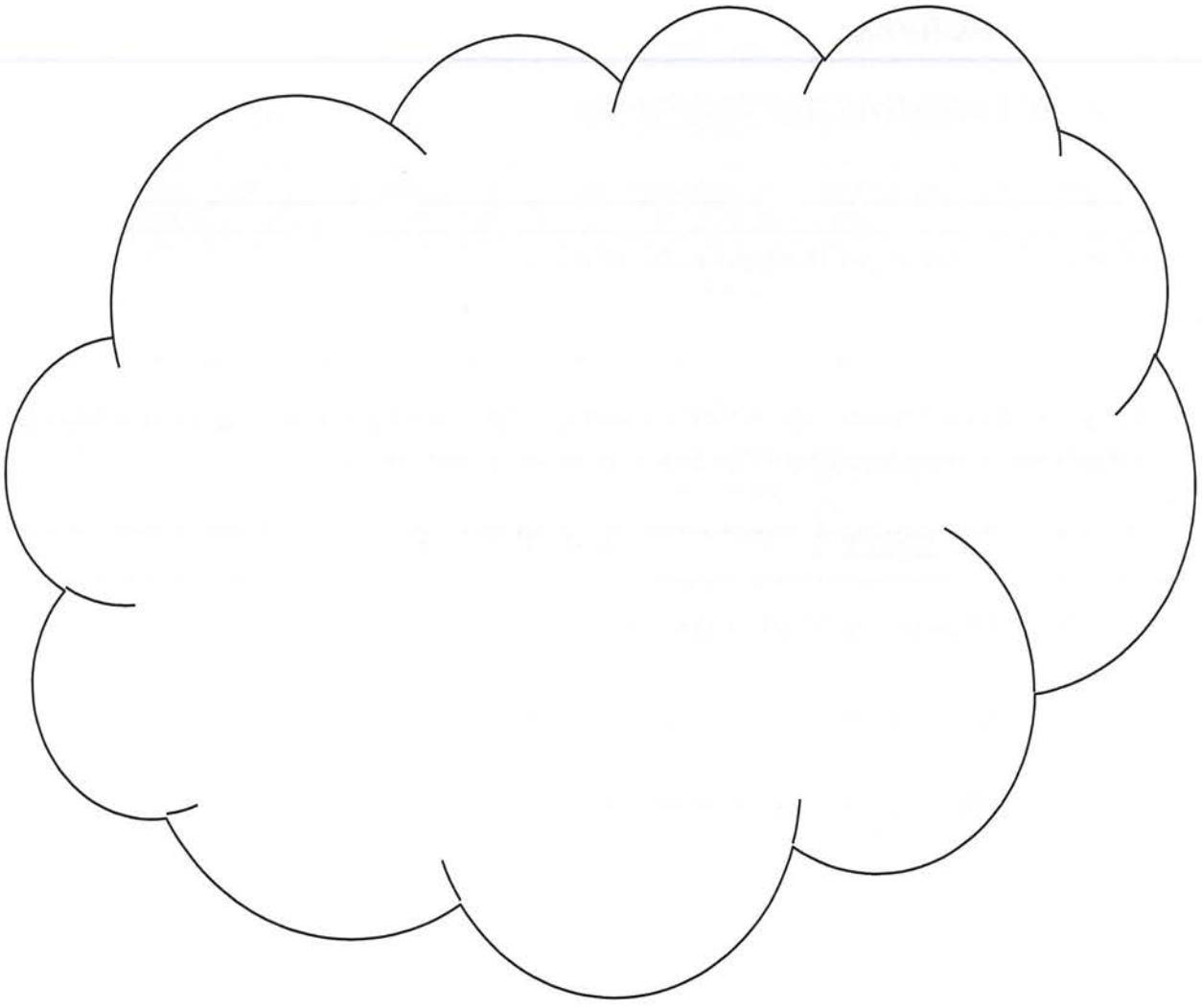
You're doing your homework and you need a pencil. You decide to look in your older brother or sister's backpack. As you unzip it, a strong, mouldy odour fills your nostrils.

You put your hand inside the backpack and feel something moist and sticky. You pull your hand out slowly. Stuck to your hand is a green and blackish, disgusting glob of unrecognisable material.

As you lean in to look closer the smell gets worse. You realise it's a stinky, months-old sports sock into which a rotting, oozing banana has been stuffed! Uuuuugh!!!

Activity 2

Now, in the cloud below, write down all the adjectives that come to mind.



Combining Sentences - Conjunctions

Conjunctions are useful because they can help us combine two sentences.

I like bananas. I like apples.

These two sentences can be combined using the conjunction **'and'**.

I like bananas **and** apples.

Activity 3

Combine the sentences below, using the conjunction listed

1. and Mandy ran home in the rain
   John ran home in the rain.
   Mandy and John ran home in the rain.

2. or Do you want to roller skate?
   Do you want to play soccer?

   _____

3. but I was going to walk home.
   It began to rain.

   _____

4. so I forgot to bring my books home.
   I couldn't do my homework.

   _____

5. and I know how to read.
   I know how to write.

   _____

6. or Would you like milk?
   Would you like water?

   _____

7. but I would like to go with you.
   I have homework.

   _____

Pronouns

In a sentence, a pronoun can take the place of a noun.

- Words such as **he**, **she**, **we**, **they**, **them**, **it** and **our** are pronouns.
- Pronouns can also show ownership, such as **his**, **her** and **their**.
- Using a pronoun in a sentence can change a sentence and even shorten it.

For example: Instead of saying "Mum, Dad, my sister, my brother and I all went shopping", you could just say, "**We** all went shopping".

Activity 4

Draw a line to match the word or group of words on the left with the corresponding pronoun on the right.

1.	Pat and I	he
2.	Joseph	she
3.	Alyssa	we
4.	The big truck	they
5.	Kevin and Martin	it

Write a pronoun to replace the word (s) in bold in each sentence. You could choose from: we, he, she, they, it, our, his or her.

1. **Joseph** loves to sing _____
2. **Jennifer and Carl** enjoy listening to his singing. _____
3. Joseph will sing a duet with **Olivia**. _____
4. **Olivia** has a beautiful voice too. _____
5. **The concert** will be tomorrow evening. _____

Activity 5

Replace the underlined words in each sentence with one of these pronouns; he, she or it.

1. The girl listened to music at lunch.

   _____ listened to music at lunch.

2. The boy played games after dinner.

   _____ played games after dinner.

3. The cat climbed onto the kitchen table.

   _____ climbed onto the kitchen table.

4. My brother is in high school.

   _____ is in high school.

5. The mall was filled with hundreds of people.

   _____ was filled with hundreds of people.

6. My mum took us to the beach last weekend.

   _____ took us to the beach last weekend.

Now underline the pronouns in the sentences below.

1. We helped my mum bake a cake.
2. They scored a lot of points by working together.
3. The school is being remodelled because it is old.
4. Mrs Brown gave Jack a pencil for his birthday.
5. They enjoy going to the computer lab.
6. After school, she is coming to my house.

Adverbs – When, Where and How

Adverbs usually describe **how** something is done. Adverbs literally add to a verb. So, if a verb is an action word, then adverbs describe the action.

For example: Michael was **carefully** cooking spaghetti.

The word 'carefully' describes **how** Michael is cooking. He could cook **quickly, calmly** or **messily.** These are all adverbs.

Adverbs can also describe **when** or **where** something was done.

Yesterday, Mark went to the cricket.

Yesterday describes **when** Mark went to the cricket.

Activity 6

Underline the adverbs that describe when, where or how the event happened. The first one has been done for you.

1. My name was finally called.
2. Mum quickly went down to the shops.
3. I am going to Sarah's house before going home.
4. Tim waited patiently for the computer to load.
5. He will run tomorrow.

Use an adverb to add more description to these sentences. Rewrite each sentence to include how, when or where.

You could use quickly, slowly, yesterday, carefully or a word of your choice.

1. Mrs Tan corrected my work.
   Mrs Tan **carefully** corrected my work.
2. Mary jumped out of the car.

   _____
3. The cat walked across the street.

   _____
4. I rode my bike around the block

   _____

Activity 7

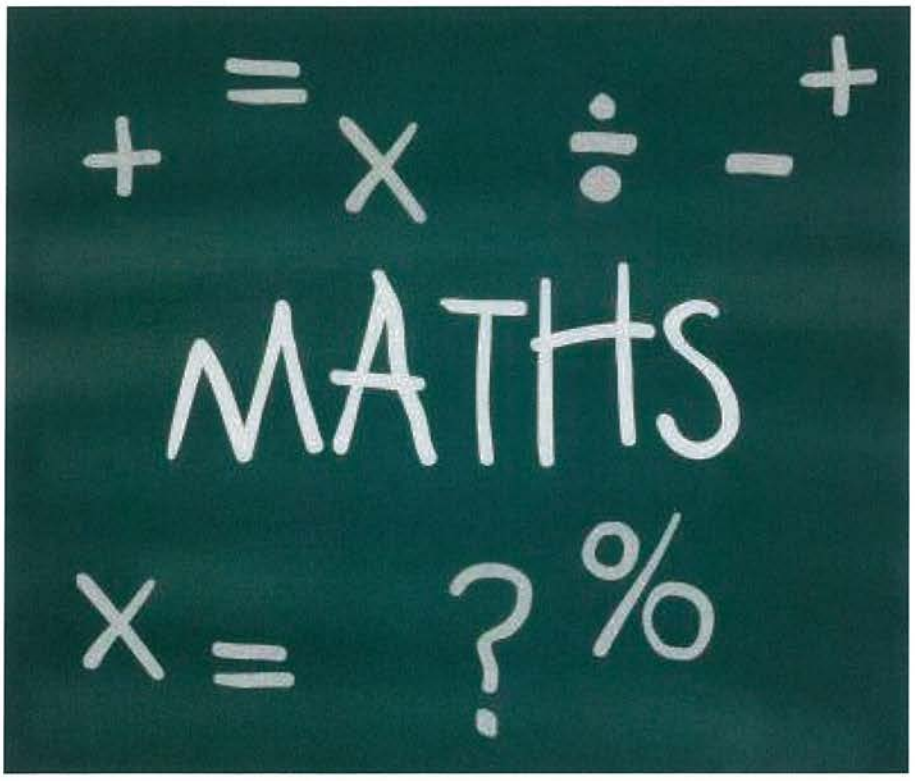
Read the paragraph below. Circle all of the adverbs, then write the adverbs on the lines below. See if you can find all 10 adverbs in the passage. Hint: Adverbs often end in 'ly'

Today I helped my mum cook dinner. We carefully cut the vegetables and slowly placed them into a pot of boiling water. Next, mum quickly browned the chicken and waited patiently for it to cook through. I eagerly asked for another job. Mum asked me to gently sprinkle spices into the soup. I accidentally poured in too much cumin. I quietly told mum my mistake and she lovingly said that it was ok and that we'll make another one tomorrow.

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

From informedfarmers.com

Year 7



Gorokan High School – Mathematics	
Year 7	
Column Graphs, Dot Plots, Frequency Distribution Table, Frequency Histogram and Polygon	
Learning Intention: To understand how data can be represented.	**Success Criteria:** - I can interpret and create column graphs. - I can interpret and create dot plots - I can complete a frequency distribution table from a set of data. - I can create a frequency histogram and polygon from a data set.

Video Resources (Link): Not needed, but included if technology permits.

Video 1: Column (Bar) Graphs
https://www.youtube.com/watch?v=ReW4MPqXTvA

Video 2: Dot Plots
https://www.youtube.com/watch?app=desktop&v=lq6CpefZwAk&form=MY01SV&OCID=MY01SV

Video 3: Frequency Distribution Table
https://www.youtube.com/watch?v=WUXHiqJGx5I

Video 4: Drawing a Frequency Histogram and Polygon
https://www.youtube.com/watch?v=9fJQY3x7hUw

Resources Needed for Lesson:
Printed Workbook

Student Instructions:
Students are to work through the specified work outlined below.

Exercise 9B – Dot Plots and Column Graphs
Read through the information and examples and answer the all questions in exercise 9B.

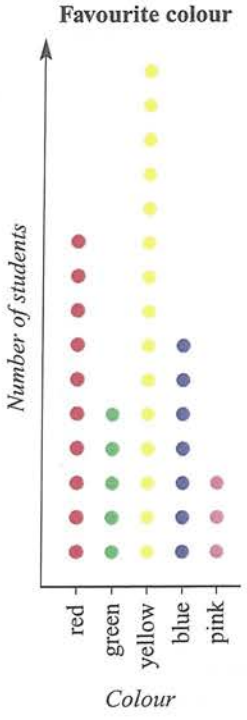
Exercise 9E – Frequency Distribution Tables
Read through the information and examples and answer the following questions in exercise 9E
Questions
1, 2, 3, 4, 7, 8, 9

Exercise 9F – Frequency Histograms and Polygons
Read through the information and examples and answer the all questions in exercise 9F.

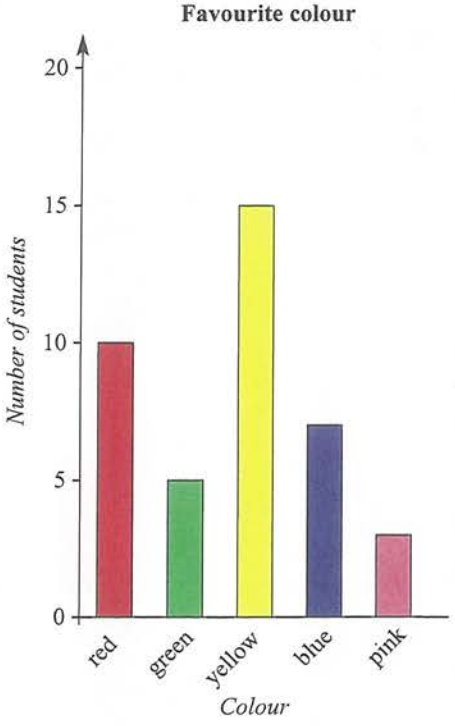
9B Dot plots and column graphs

Often, data can be represented using **dot plots**, where each value is represented as a filled circle. More commonly, it is represented using **column graphs**, where the height of each column represents a number. Column graphs can be drawn vertically or horizontally. These graphs are suitable for categorical or discrete numerical data.

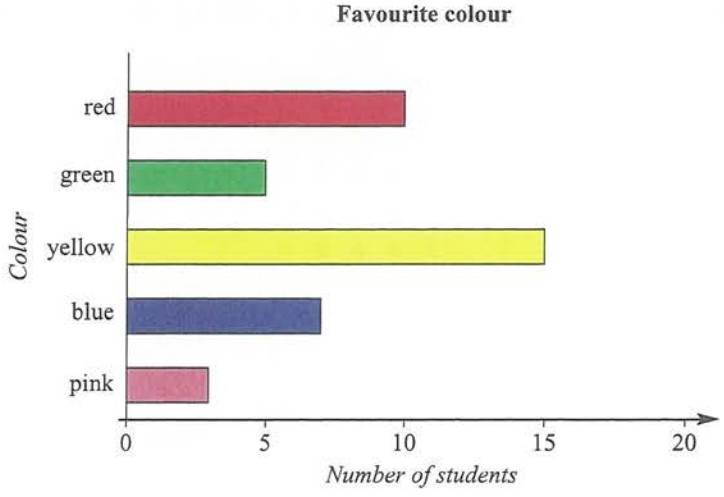
Consider a survey of students who are asked to choose their favourite colour from five possibilities. The results could be represented as a dot plot or as a column graph.



Represented as a dot plot



As a column graph (vertical)



As a column graph (horizontal)

ISBN: 9781107671812

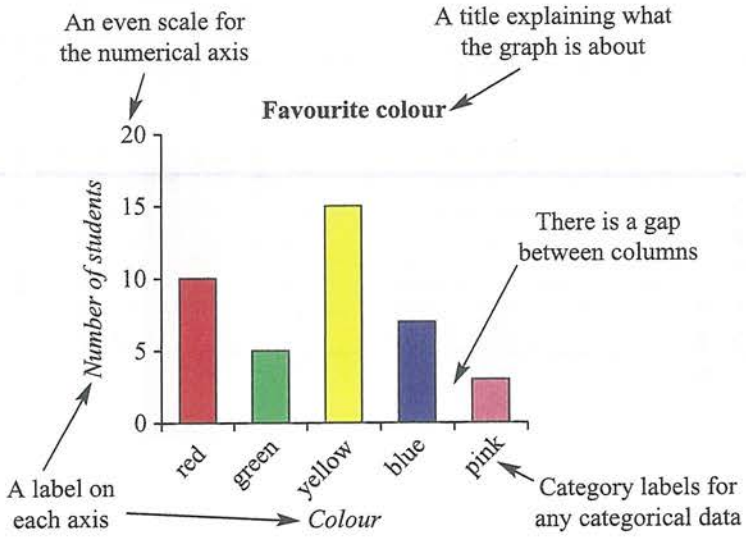
Let's start: Favourite colours

Survey the class to determine each student's favourite colour from the possibilities red, green, yellow, blue and pink.

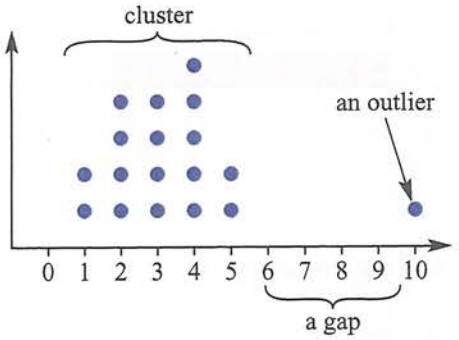
- Each student should draw a column graph or a dot plot to represent the results.
- What are some different ways that the results could be presented into a column graph? (There are more than 200 ways.)

Key ideas

- A **dot plot** can be used to display data, where each dot represents one **data value**. Dots must be aligned horizontally so the height of different columns can easily be seen.
- A **column graph** is an alternative way to show data in different categories, and is useful when more than a few items of data are present.
- Column graphs can be drawn vertically or horizontally.
- Graphs should have the following features:



- Any numerical axis must be drawn to scale, usually starting from 0.
- An **outlier** is a value that is noticeably distinct from the main cluster of points.



- The mode is the most common response. It can be seen in the tallest column. In the graphs above, the modes are yellow and 4.

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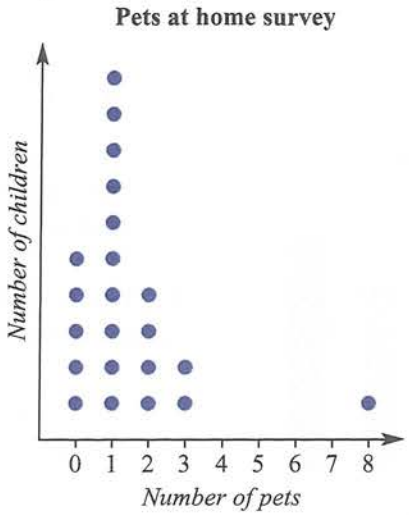
Example 3 Interpreting a dot plot

Some children were asked the following question in a survey: "How many pets do you have at home?" The responses are shown in the dot plot below.



a Use the graph to state how many children have 2 pets.
b How many children participated in the survey?
c What is the range of values?
d What is the median number of pets?
e What is the outlier?
f What is the mode?

SOLUTION	EXPLANATION
a 4 children	There are four dots in the '2 pets' category, so 4 children have 2 pets.
b 22 children	The total number of dots is 22.
c $8 - 0 = 8$	Range = highest – lowest In this case, highest = 8, lowest = 0.
d 1 pet	As there are 22 children, the median is the average of the 11th and 12th value. In this case, the 11th and 12th values are both 1.
e the child with 8 pets	The main cluster of children has between 0 and 3 pets, but the person with 8 pets is significantly outside this cluster.
f 1 pet	The most common response was 1. It has the highest column of dots.

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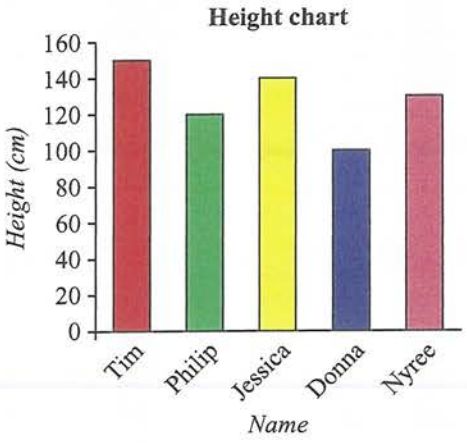
Example 4 Constructing a column graph

Draw a column graph to represent the following people's heights.

Name	Tim	Philip	Jessica	Donna	Nyree
Height (cm)	150	120	140	100	130

SOLUTION



EXPLANATION

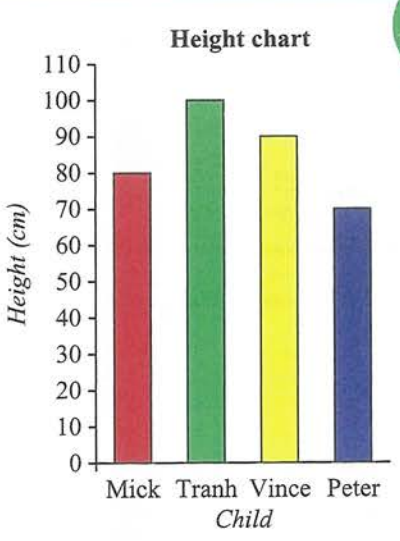
First decide which scale goes on the vertical axis. Maximum height = 150 cm, so axis goes from 0 cm to 160 cm (to allow a bit above the highest value).

Remember to include all the features required, including axes labels and a graph title.

Exercise 9B

1 The graph opposite shows the height of four boys.
Answer true or false to each of the following statements.

a Mick is 80 cm tall.
b Vince is taller than Tranh.
c Peter is the shortest of the four boys.
d Tranh is 100 cm tall.
e Mick is the tallest of the four boys.



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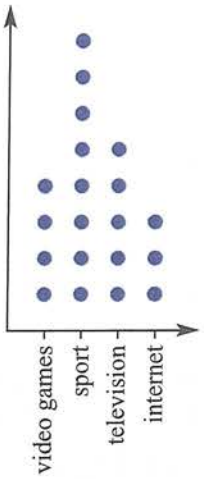
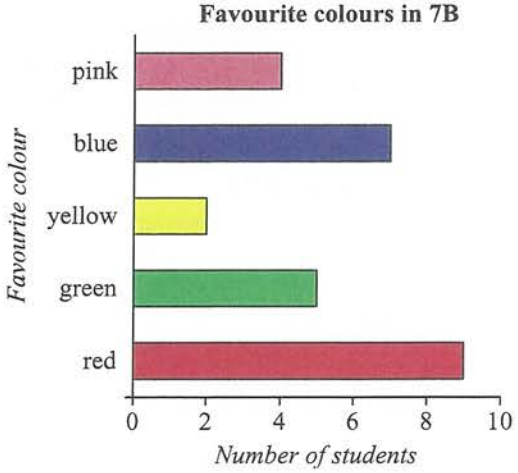
Example 3 **2** The favourite after-school activity of a number of Year 7 students is recorded in the dot plot below.



a How many students have chosen television as their favourite activity?
b How many students have chosen surfing the internet as their favourite activity?
c What is the most popular after-school activity for this group of students?
d How many students participated in the survey?

3 From a choice of pink, blue, yellow, green or red, each student of Year 7B chose their favourite colour. The results are graphed below.



a How many students chose yellow?
b How many students chose blue?
c What is the most popular colour?
d How many students participated in the class survey?
e Represent these results as a dot plot.

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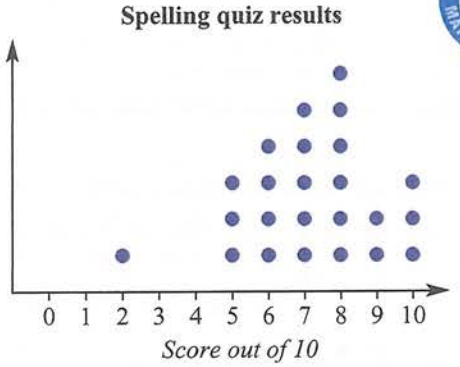
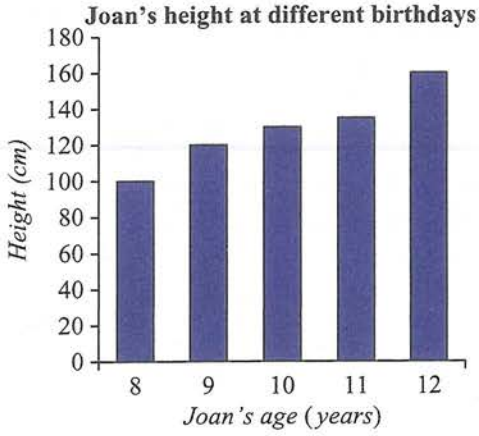
4 In a Year 4 class, the results of a spelling quiz are presented as a dot plot.

a What is the most common score in the class?
b How many students participated in the quiz?
c What is the range of scores achieved?
d What is the median score?
e Identify the outlier.
f What is the mode?
g Are there any gaps in this set of data?



5 Joan has graphed her height at each of her past five birthdays.



a How tall was Joan on her 9th birthday?
b How much did Joan grow between her 8th birthday and 9th birthday?
c How much did Joan grow between her 8th and 12th birthdays?
d How old was Joan when she had her biggest growth spurt?

Example 4

6 Draw a column graph to represent each of these boys' heights at their birthdays.

a Mitchell

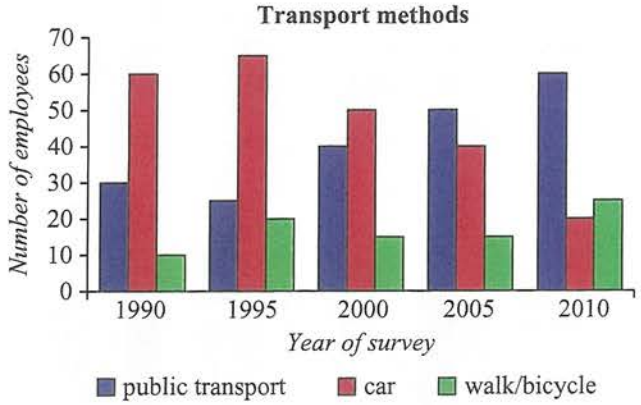
Age (years)	Height (cm)
8	120
9	125
10	135
11	140
12	145

b Fatu

Age (years)	Height (cm)
8	125
9	132
10	140
11	147
12	150

ISBN: 9781107671812

7 Every five years, a company in the city conducts a transport survey of people's preferred method of getting to work in the mornings. The results are graphed below.



a Copy the following table into your workbook and complete it, using the graph.

	1990	1995	2000	2005	2010
Use public transport	30				
Drive a car	60				
Walk or cycle	10				

b In which year(s) is public transport the most popular option?

c In which year(s) are more people walking or cycling to work than driving?

d Give a reason why the number of people driving to work has decreased.

e What is one other trend that you can see from looking at this graph?

8 a Draw a column graph to show the results of the following survey of the number of boys and girls born at a certain hospital. Put time (years) on the horizontal axis.

	2000	2001	2002	2003	2004	2005
Number of boys born	40	42	58	45	30	42
Number of girls born	50	40	53	41	26	35

b During which year(s) were there more girls born than boys?

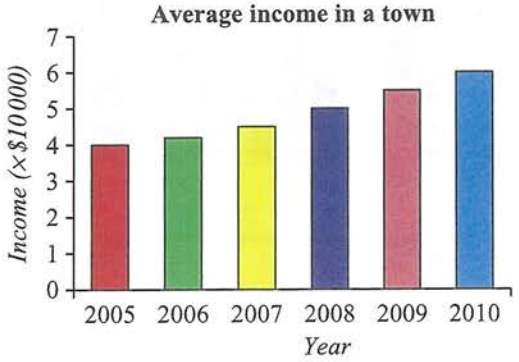
c Which year had the fewest number of births?

d Which year had the greatest number of births?

e During the entire period of the survey, were there more boys or girls born?

ISBN: 9781107671812

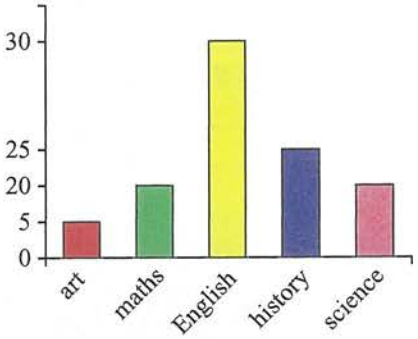
9 The average income of adults in a particular town is graphed over a 6-year period.
- a Describe in one sentence what has happened to the income over this period of time.
- b Estimate what the income in this town might have been in 2004.
- c Estimate what the average income might be in 2020 if this trend continues.

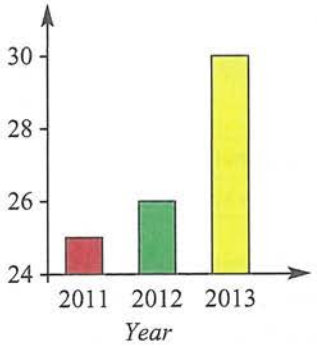


10 Explain why it is important to align dot points in a dot plot. Illustrate your explanation with two dot plots of the set of data below.

Activity	Netball	Dancing	Tennis	Chess
Number of students	5	3	2	4

11 A survey is conducted of students' favourite subjects from a choice of art, maths, English, history and science. Someone has attempted to depict the results in a column graph.
- a What is wrong with the scale on the vertical axis?
- b Give at least two other problems with this graph.
- c Redraw the graph with an even scale and appropriate labels.
- d The original graph makes maths look twice as popular as art, based on the column size. According to the survey, how many times more popular is maths?
- e The original graph makes English look three times more popular than maths. According to the survey, how many times more popular is English?
- f An English teacher wishes to show how much his subject has grown in popularity and draws the graph shown. Describe how starting the vertical axis from 24 makes the graph look different from starting the axis at 0.





ISBN: 9781107671812

9E Frequency distribution tables

Often the actual values in a set of data are not required – just knowing how many numbers fall into different ranges is often all the information that is needed. A **frequency distribution table** allows us to do this by listing how common the different values are.

Frequency distribution tables can be used for listing particular values or ranges of values.

Number of cars	Frequency
0	10
1	12
2	5
3	3

Age	Frequency
0–4	7
5–9	12
10–14	10
15–19	11

Let's start: Subject preferences

- Survey a group of peers to find their favourite school subject out of maths, English, science, music and sport.
- Represent your results in a table like the one below.

	maths	English	science	music	sport
Tally	𝍸	𝍸 I	𝍸 III	IIII	II
Frequency	5	6	8	4	2

- How would you expect the results to differ for different classes at your school, or for different schools?

Key ideas

- A **tally** is a tool used for counting as results are gathered. Numbers are written as vertical lines with every 5th number having a cross through a group of lines. For example, 4 is IIII and 7 is 𝍸 II.
- **Frequency distribution tables** show how common a certain value is in a frequency column. A tallying column is also often used as data is gathered.
- The items can be individual values or intervals of values.

Example 8 Interpreting tallies

a The different car colours along a quiet road are noted. Convert the following tally into a frequency distribution table.

white	black	blue	red	yellow
III	𝍸 𝍸 III	𝍸 𝍸 𝍸 II	𝍸 I	𝍸 IIII

b Hence state how many red cars were spotted.

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SOLUTION

a

Colour	white	black	blue	red	yellow
Frequency	3	13	17	6	9

b 6 red cars were spotted.

EXPLANATION

Each tally is converted into a frequency. For example, black is two groups of 5 plus 3, giving $10 + 3 = 13$.

This can be read directly from the table.

Example 9 Constructing tables from data

Put the following data into a frequency distribution table: 1, 4, 1, 4, 1, 2, 3, 4, 6, 1, 5, 1, 2, 1.

SOLUTION

Number	1	2	3	4	5	6
Tally	𝍸 I	II	I	III	I	I
Frequency	6	2	1	3	1	1

EXPLANATION

Construct the tally as you read through the list. Then go back and convert the tally to frequencies.

Exercise 9E

1 The table below shows survey results for students' favourite colours.

Colour	Frequency
red	5
green	2
orange	7
blue	3

Classify the following as true or false.

a 5 people chose red as their favourite colour.

b 9 people chose orange as their favourite colour.

c Blue is the favourite colour of 3 people.

d More people chose green than orange as their favourite colour.

2 Fill in the blanks.

a The tally IIII represents the number ____.

b The tally 𝍸 II represents the number ____.

c The tally ____ represents the number 2.

d The tally ____ represents the number 11.

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Example 8 **3** A basketball player's performance in one game is recorded in the following table.

	Passes	Shots at goal	Shots that go in	Steals
Tally	III	𝍸 𝍸 II	𝍸 III	II
Frequency				

a Copy and complete the table, filling in the frequency row.
b How many shots did the player have at the goal?
c How many shots went in?
d How many shots did the player miss during the game?

Example 9 **4** A student surveys her class to ask how many people are in their family.
The results are:
6, 3, 3, 2, 4, 5, 4, 5, 8, 5, 4, 8, 6, 7, 6, 5, 8, 4, 7, 6
a Construct a frequency distribution table. Include a tally row and a frequency row.
b How many students have exactly 5 people in their family?
c How many students have at least 6 people in their family?

5 Braxton surveyed a group of people to find out how much time they spent watching television last week. They gave their answers rounded to the nearest hour.

Number of hours	0–4	5–9	10–14	15–19	20–24	25 or more
Tally	𝍸 III	𝍸 𝍸 II	𝍸 𝍸 𝍸	𝍸 IIII	IIII	II

a Draw a frequency distibution table of his results, converting the tallies to numbers.
b How many people did he survey?
c How many people spent 15–19 hours watching television last week?
d How many people watched television for less than 5 hours last week?

6 The heights of a group of 21 people are shown below, given to the nearest cm.

174 179 161 132 191 196 138 165 151 178 189
147 145 145 139 157 193 146 169 191 145

a Copy and complete the frequency table distribution below.

Height (cm)	130–139	140–149	150–159	160–169	170–179	180–189	190+
Tally							
Frequency							

b How many people are in the range 150–159 cm?
c How many people are 180 cm or taller?
d How many people are between 140 cm and 169 cm tall?

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7 A tennis player records the number of double faults they serve per match during one month.

Double faults	0	1	2	3	4	5
Frequency	4	2	1	0	2	1

a How many matches did they play in total during the month?
b How many times did they serve exactly 1 double fault?
c In how many matches did they serve no double faults?
d How many double faults did they serve in total during the month?

8 Match each of these data sets with the correct column (A, B, C or D) in the frequency distribution table shown below.

a 1, 1, 2, 3, 3
b 1, 2, 2, 2, 3
c 1, 1, 1, 2, 3
d 1, 2, 3, 3, 3

Number	A	B	C	D
1	3	2	1	1
2	1	1	1	3
3	1	2	3	1

9 Five different classes are in the same building in different rooms. The ages of students in each room are recorded in the frequency distribution table below.

Age	Room A	Room B	Room C	Room D	Room E
12	3	2	0	0	0
13	20	18	1	0	0
14	2	4	3	0	10
15	0	0	12	10	11
16	0	0	12	10	11
17	0	0	0	1	0

a How many students are in room C?
b How many students are in the building?
c How many 14-year-olds are in the building?
d What is the average (mean) age of students in room B? Answer to 1 decimal place.
e What is the average (mean) age of students in the building? Answer to 1 decimal place.

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9F Frequency histograms and frequency polygons

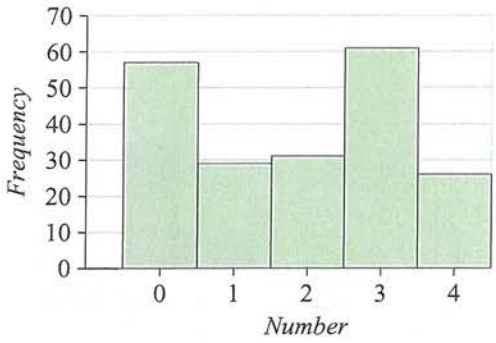
Frequency histogram and **frequency polygons** are graphical representation of a frequency distribution table so that patterns can be observed more easily.

For example, the data below is represented as a frequency distribution table, a histogram and a frequency polygon.

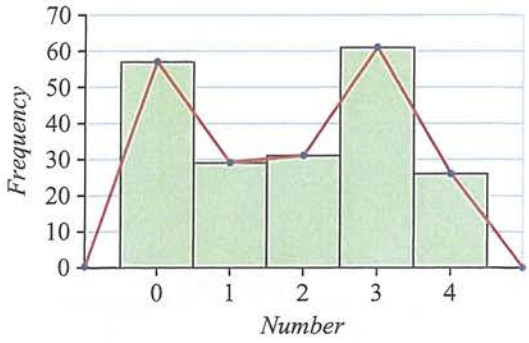
As a table

Number	Frequency
0	57
1	29
2	31
3	61
4	26

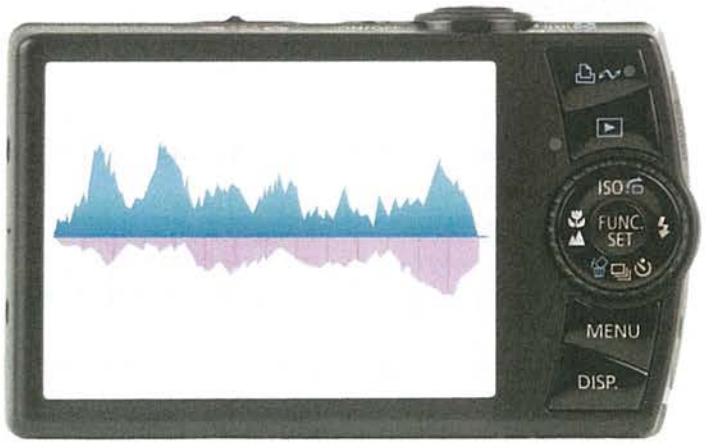
As a frequency histogram



As a frequency polygon



At a glance you can see from the histogram that 0 and 3 are about twice as common as the other values. This is harder to read straight from the table. Histograms are often used in digital cameras and photo editing software to show the brightness of a photo.



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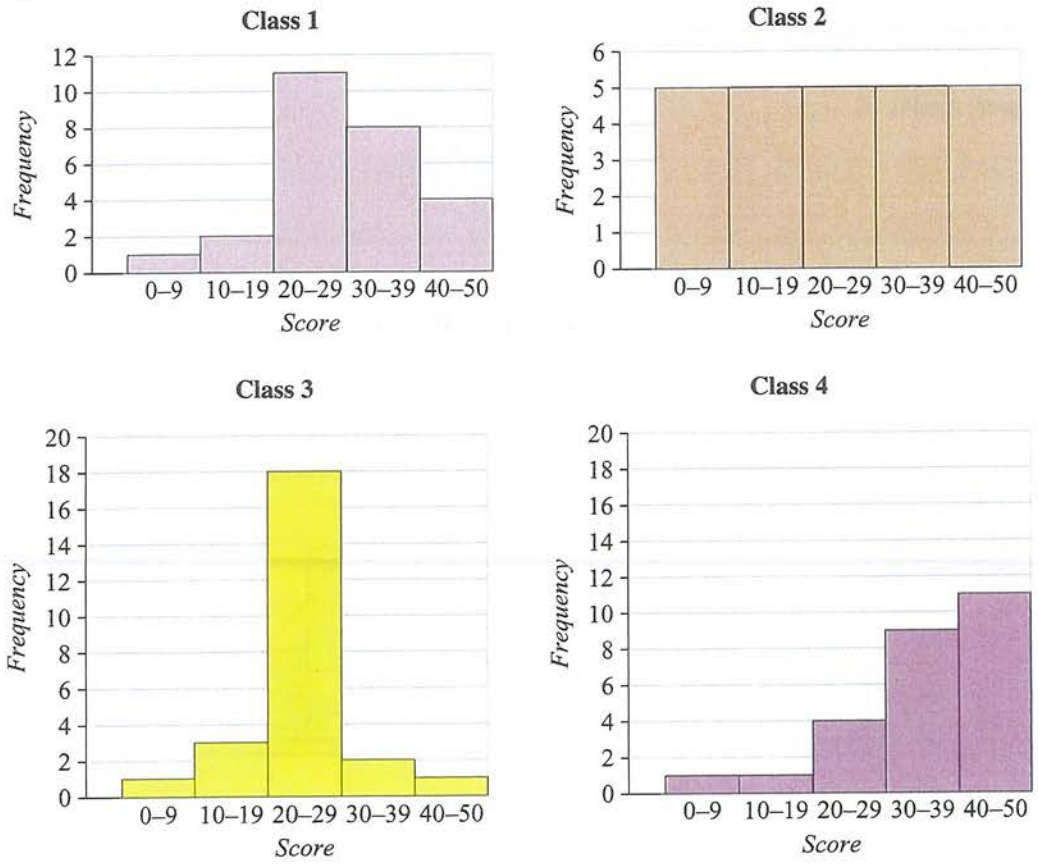
Let's start: Test analysis

The results for some end-of-year tests are shown for four different classes in four different histograms.



- Describe each class on the basis of these graphs.
- Which class has the highest average score?
- Which class has the highest overall score?
- Which class would be the easiest to teach and which would be the hardest, do you think?

Key ideas

- A **frequency histogram** is a graphical representation of a frequency distribution table. It can be used when the items are numerical.
- The vertical axis (y-axis) is used to represent the frequency of each item.
- Columns are placed next to one another with no gaps in between.
- A half-column-width space is placed between the vertical axis and the first column of the histogram.
- A **frequency polygon** is formed by joining the centres of each column in the histogram. It begins and ends on the horizontal axis.

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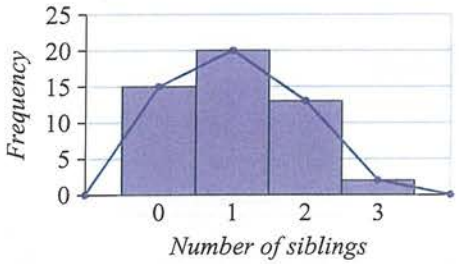
Example 10 Constructing histograms from tables

Represent the frequency distribution table below as a histogram and a polygon. Ensure an appropriate scale and label is chosen for each axis.

Number of siblings	Frequency
0	15
1	20
2	13
3	2

SOLUTION



EXPLANATION

The scale 0–25 is chosen to fit the highest frequency (20) on the vertical axis, 0–3 on the horizontal to include all values.

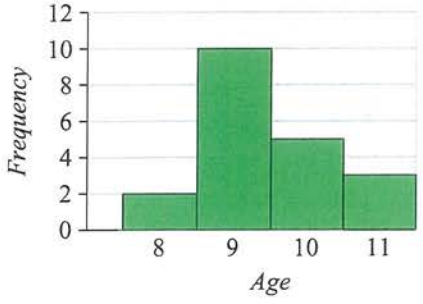
Each different number of siblings in the frequency distribution table is given a column in the graph with a half-column-width gap at the left

Note the starting and ending point of the polygon.

Exercise 9F

1 The histogram below shows the ages of people in an art class.

- a How many 8-year-olds are in this class?
- b What is the most common age for students in this class?
- c What is the age of the oldest person in the class?



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2 A survey is conducted of the number of people in different families. The results are shown.

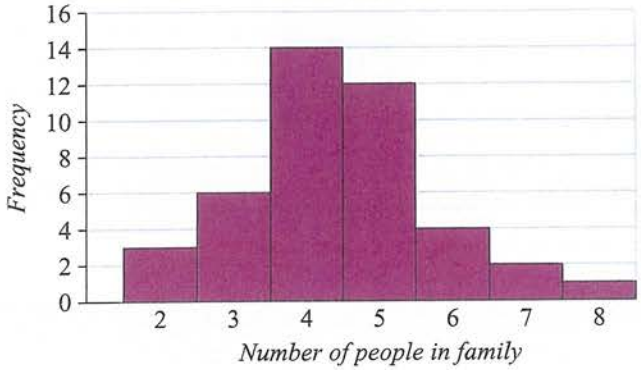
a What is the most likely number of people in a family, on the basis of this survey?

b How many people responding to the survey said they had a family of 6?

c What is the least likely number (from 2 to 8) of people in a family, on the basis of this survey?

d Fill in the gaps:

By joining the centre of each column in the histogram we create a _____ _____.



Example 10

3 Represent the following frequency distribution tables as histograms. Ensure that appropriate scales and labels are put on the axes.

a

Number	Frequency
0	5
1	3
2	5
3	2
4	4

b

Number	Frequency
0	3
1	9
2	3
3	10
4	7

c

Age	Frequency
12	15
13	10
14	25
15	20
16	28

d

Number of cars	Frequency
0	4
1	5
2	4
3	2

4 For the following sets of data:

i create a frequency distribution table ii hence draw a histogram and a polygon

a 1, 2, 5, 5, 3, 4, 4, 4, 5, 5, 5, 1, 3, 4, 1

b 5, 1, 1, 2, 3, 2, 2, 3, 3, 4, 3, 3, 1, 1, 3

c 4, 3, 8, 9, 7, 1, 6, 3, 1, 1, 4, 6, 2, 9, 7, 2, 10, 5, 5, 4

d 60, 52, 60, 59, 56, 57, 54, 53, 58, 56, 58, 60, 51, 52, 59, 59, 52, 60, 50, 52

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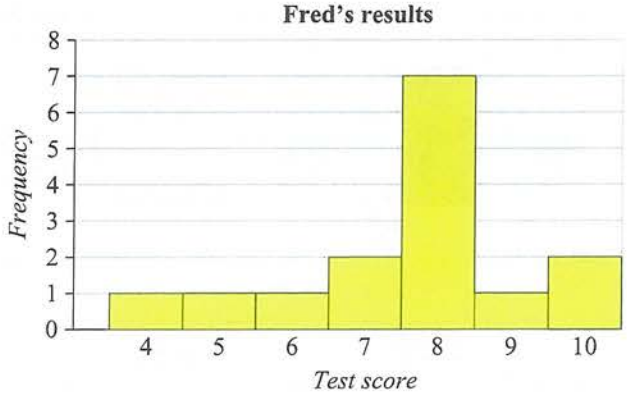
5 Edwin records the results for his spelling tests out of 10. They are 3, 9, 3, 2, 7, 2, 9, 1, 5, 7, 10, 6, 2, 6, 4.

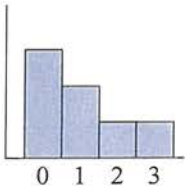
a Draw a histogram for his results.

b Is he a better or a worse speller generally than Fred, whose results are given by the histogram shown below?

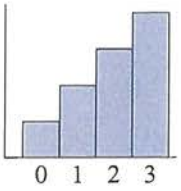


6 Some tennis players count the number of aces served in different matches. Match up the histograms with the descriptions.

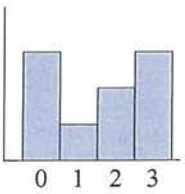
a



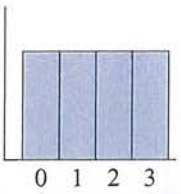
b



c



d



A Often serves aces.

B Generally serves 3 aces or 0 aces.

C Serves a different number of aces in each match.

D Rarely serves aces.

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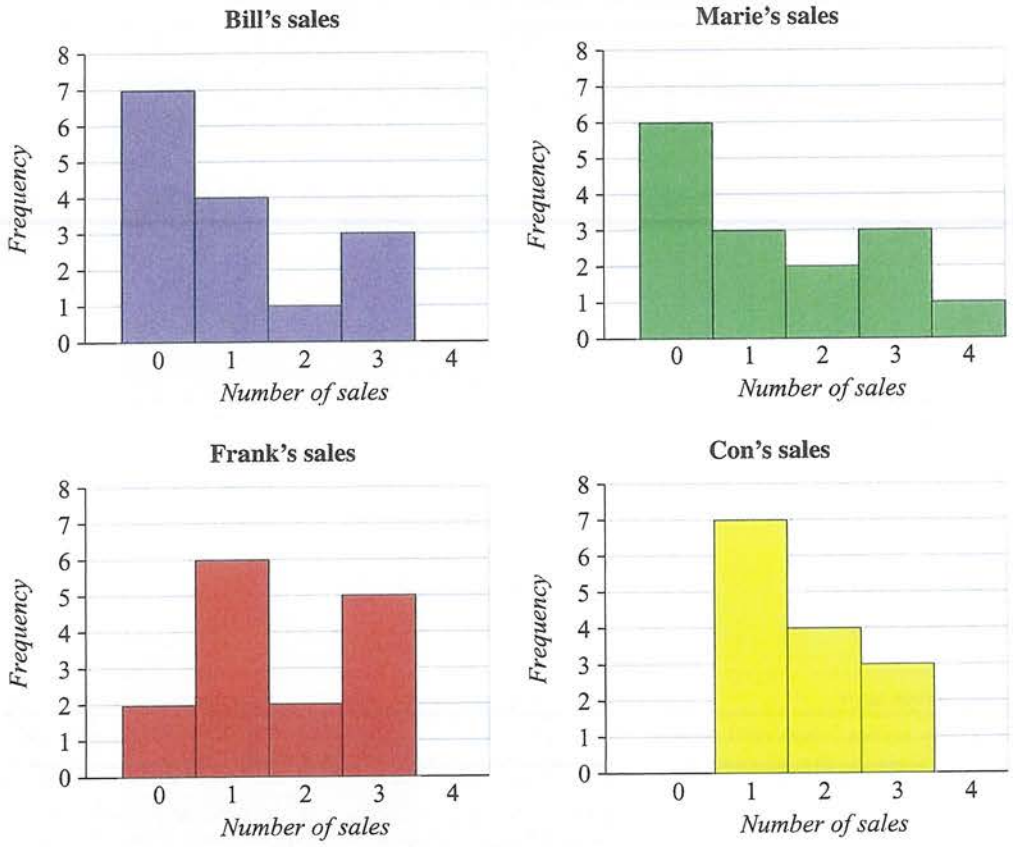
7 A car dealership records the number of sales each salesperson makes per day over three weeks.



a Which salesperson holds the record for the greatest number of sales in one day?

b Which salesperson made a sale every day?

c Over the whole period, which salesperson made the most sales in total?

d Over the whole period, which salesperson made the fewest sales in total?

e On the same set of axes draw all four salesperson's frequency polygons (only draw the line joining the tops, not with columns).

f Explain why a frequency polygon can be more useful for comparing data than a histogram. (Hint: consider what multiple histograms would look like on the same axes.)

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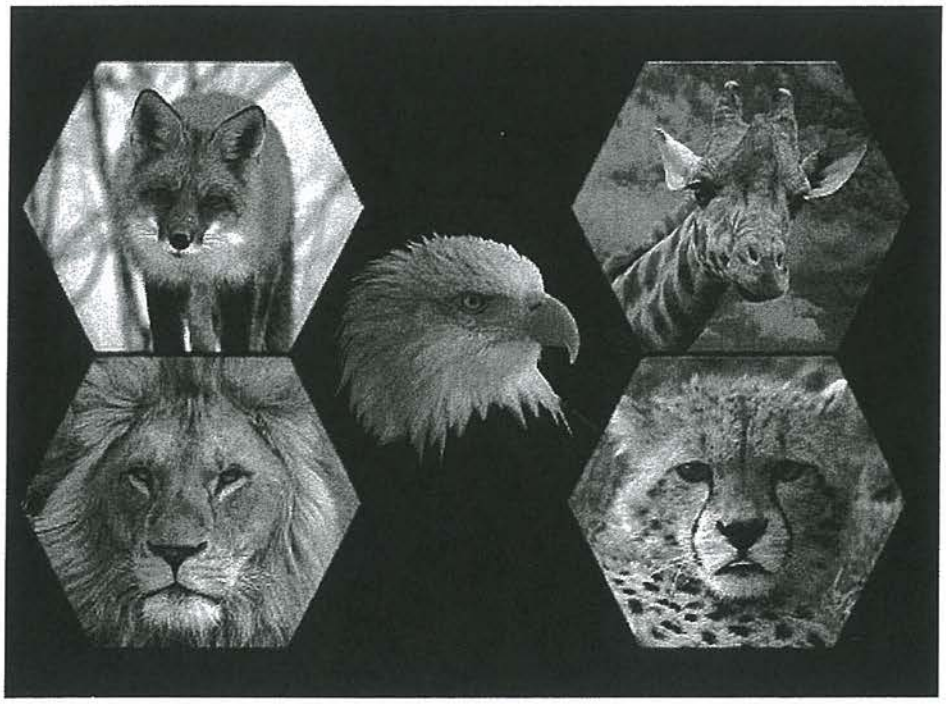
Year 7

SCIENCE



Lessons 1 and 2: What is matter?

Everything around us is made of matter – trees, houses, soil, all appliances, our houses, the air we breathe and the water we drink. From the time of the ancient Greeks, humans have speculated and debated about the nature of matter. What is all this 'stuff' made of and why does it have certain characteristics?

For instance, we can pour water into a glass but not ice. Ice can't be poured into a glass because it has a shape, and if it is kept cold, ice will keep its shape.

A scientific definition of matter is anything that has mass and occupies space.

Think about water as an example of matter.

Does water have mass and does it take up space?

A bucket of water is pretty heavy to lift. So it definitely has mass. It also takes up space in the bucket. Since it has mass and takes up space, water is matter.

Water is a liquid. A liquid is one of the common states of matter. The other two common states of matter are solid and gas.

To find out how a solid, liquid and gas differ we need to look deep inside matter at a very small scale.

Matter is made of very small particles

Chemists know that matter is made of very small particles. There are very powerful microscopes that enable us to see particles. However, the particles are so small that it is difficult for us to imagine.

Glossary

Here is a list of the key terms used in this unit.

boiling point	temperature at which a substance changes from a liquid to a gas
change of state	process by which matter changes from one state to another
condensation	the process where a gas changes state to a liquid
contraction	becoming smaller or decreasing in size or volume
density	measure of mass per volume of a substance
diffusion	process where one substance is thoroughly mixed in another
evaporation	the process where a liquid changes state to a gas
expansion	becoming larger or increasing in size or volume
freezing point	the temperature at which a liquid changes state to a solid
heat	a form of energy. Heat energy is released when a fuel burns
mass	the amount of matter in a substance. Mass is measured in grams, kilograms or tonnes
melting point	the temperature at which a solid changes state to a liquid
prediction	a forecast based on scientific understanding or observations
solution	a mixture in which one substance dissolves in another
temperature	a measure of how hot a substance is
weight	the force due to the action of gravity on the mass of a substance. In science it is measured in Newtons

What's the Matter?

Everything that you can see around you is matter. Everything that you can see is made up of matter - your chair, your desk, your shirt,

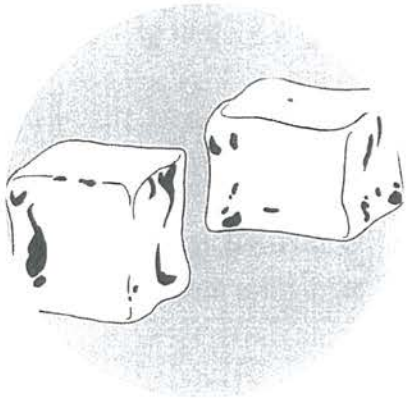
All these things can be weighed in order to find out how much matter is in them. This is called their mass.

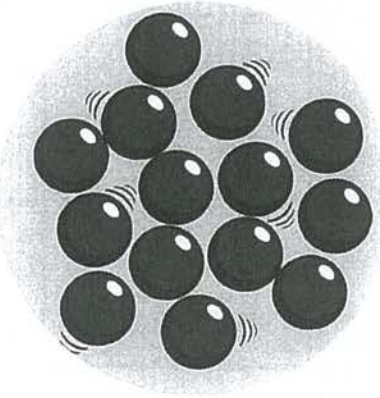
Matter also takes up space. The amount of space occupied by something is called its volume.

Matter is therefore anything that can take up space (volume) and can be weighed (mass).

Matter can be classified into three groups. These groups are called the three states of matter.

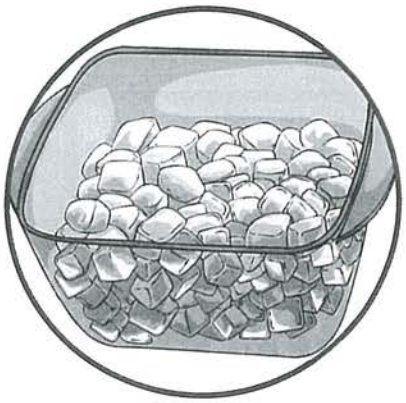
- Solids
- Liquids
- Gases

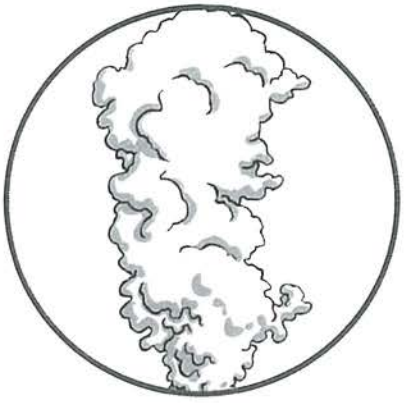




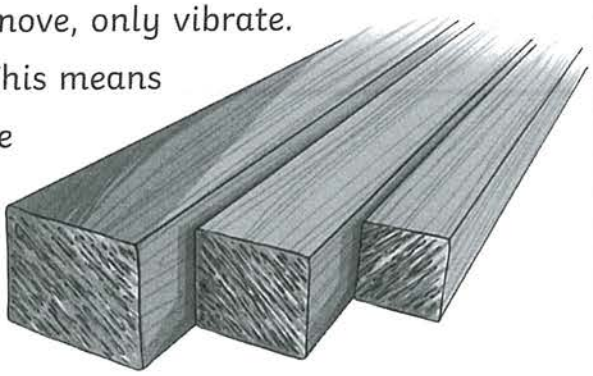
States of Matter

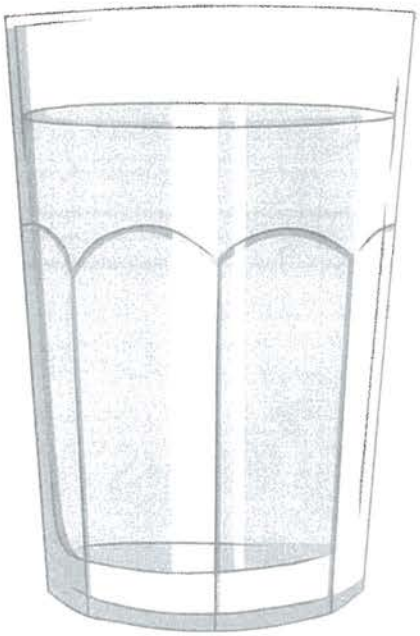
All matter is made up of atoms, but did you know there are three common states of matter? They are solid, liquid, and gas.





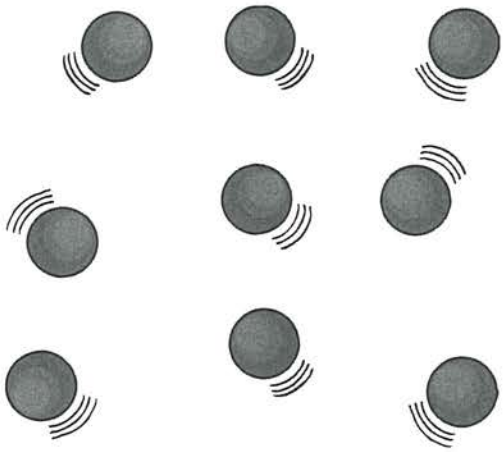
Atoms in a solid state of matter are closely packed together. In fact, they are so tightly packed that they really cannot move, only vibrate. Solids have a definite shape and volume. This means the shape and volume do not change. Some examples of solids are a piece of wood, your family's computer, your favourite car, and an ice cube.

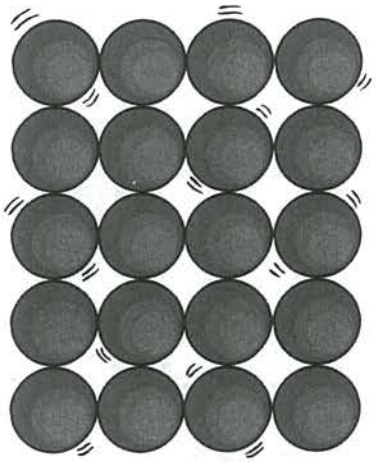




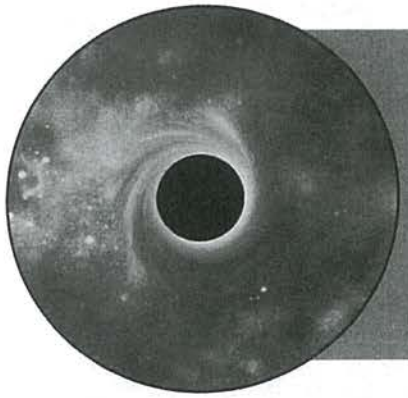
Atoms in a liquid are not as closely packed together as a solid. They are in an organised order but can move a little bit. Liquids have a definite volume but take the shape of the container they are in. For example, if you poured a cup of water into a cylinder or cube, the water will take the shape of the cylinder or cube. Regardless of the container, its volume (one cup) will remain the same. Some examples of liquids are water, oil, and juice.

Atoms in a gas move freely. They are not in an organised arrangement and have random motion. They have an indefinite volume and shape. This means their volume and shape change depending on where they are. For example, if you put steam into a big soup pot or into a box, the steam will spread out in each container to fill the volume and shape of the container. Some examples of gases are water vapour, oxygen, and nitrogen.





Did you know there is actually a fourth state of matter? It is called plasma. Plasma is the most common state of matter in the universe (but not very common on Earth). Atoms in plasma move very fast (have lots of kinetic energy), and their electrons group together so the atoms act as one instead of different parts. Plasma is present in stars, fluorescent lights, and even some televisions.



There is also a fifth state of matter called Bose-Einstein condensates (BEC). BEC matter joins all molecules together to create a "super-molecule." Though not very common, scientists believe BEC matter is found in black holes.

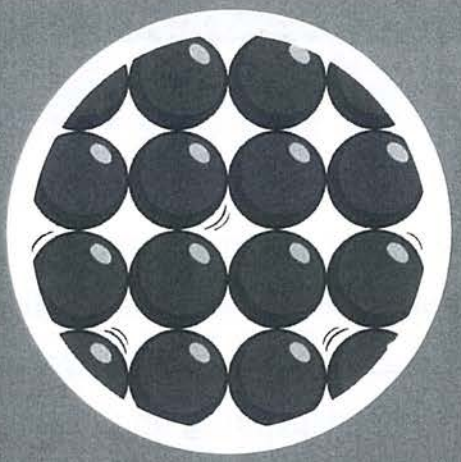
What Is a Solid?

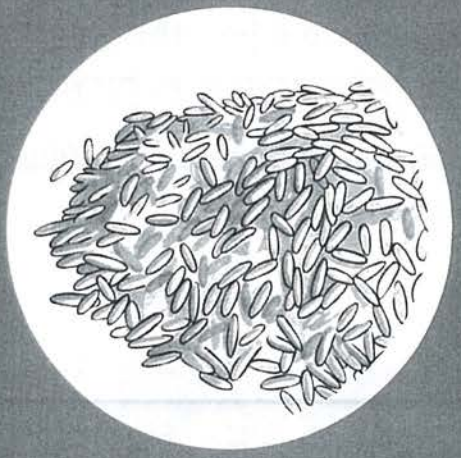
A solid is one of the three states of matter. They have a definite shape that is not easy to change.

Solids include things such as your chair, your desk, your hair, pieces of paper, and most of the objects around you. All solids occupy space and can be weighed.

Solids can have different physical characteristics; however, they are still classified as a solid. They can be hard like rocks, or soft like fur. They can be as large as an asteroid, or as small as a grain of rice. The only thing that these objects have in common is that they hold their shape because of their molecules being so tightly packed together.

Can you think of some other objects that are solids?





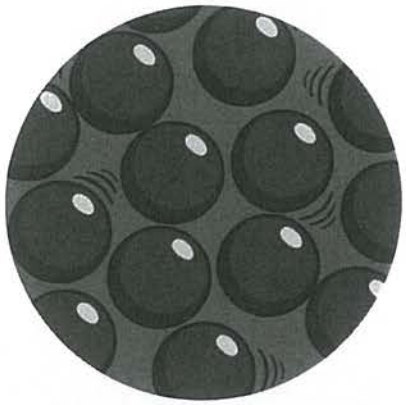
What Is a Liquid?

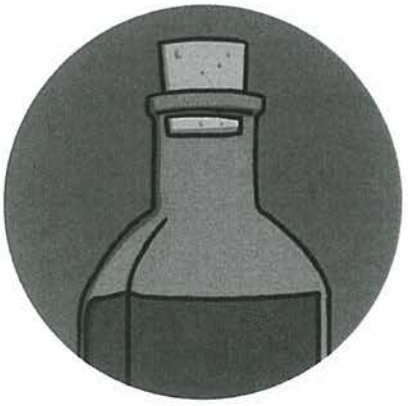
A liquid is one of the three states of matter. They are found between the solid and gas states.

Liquids are made up of very small molecules which are packed close together with no specific arrangement. The molecules are able to move around and slide past each other, which is why a liquid is able to change its shape. A liquid will take the shape of the container in which it is poured into.

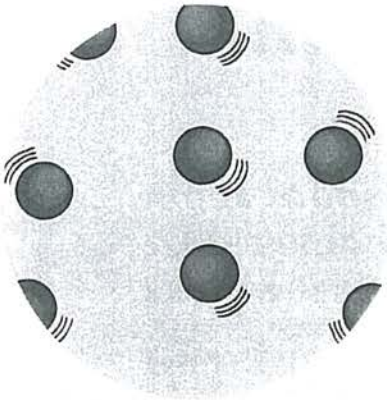
Liquids include things such as water, blood, petrol, honey, vinegar and soft drinks. All liquids flow and can easily change shape. They also have a fixed volume.

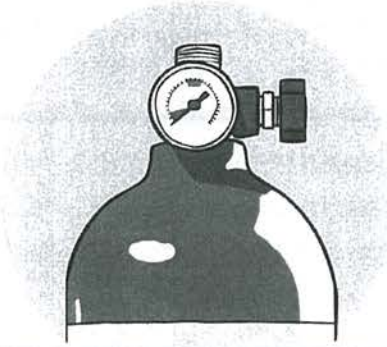
Can you think of some other objects that are liquids?



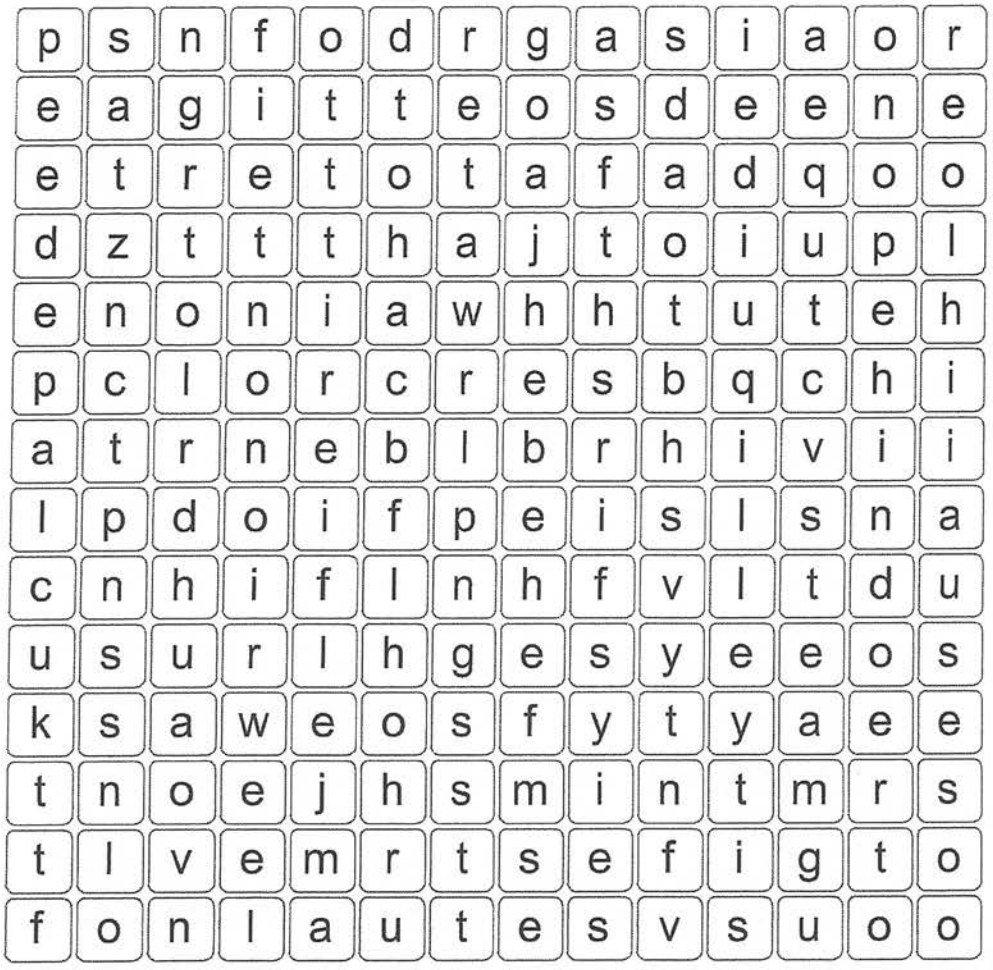


What is a Gas?





Solids, Liquids and Gases



p	s	n	f	o	d	r	g	a	s	i	a	o	r
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e	t	r	e	t	o	t	a	f	a	d	q	o	o
d	z	t	t	t	h	a	j	t	o	i	u	p	l
e	n	o	n	i	a	w	h	h	t	u	t	e	h
p	c	l	o	r	c	r	e	s	b	q	c	h	i
a	t	r	n	e	b	l	b	r	h	i	v	i	i
l	p	d	o	i	f	p	e	i	s	l	s	n	a
c	n	h	i	f	l	n	h	f	v	l	t	d	u
u	s	u	r	l	h	g	e	s	y	e	e	o	s
k	s	a	w	e	o	s	f	y	t	y	a	e	e
t	n	o	e	j	h	s	m	i	n	t	m	r	s
t	l	v	e	m	r	t	s	e	f	i	g	t	o
f	o	n	l	a	u	t	e	s	v	s	u	o	o

Words to find:

flow, force, gas, ice, liquid, particle, solid, steam, vibrate, water.

Questions

1. What is the most common state of matter in the universe?
   - ○ solid
   - ○ liquid
   - ○ gas
   - ○ plasma
2. Which state of matter is thought to be present in black holes?
   - ○ liquid
   - ○ Bose-Einstein condensates
   - ○ plasma
   - ○ gas
3. Which state of matter has an indefinite volume and shape?
   - ○ gas
   - ○ solid
   - ○ liquid
   - ○ plasma
4. What makes each state of matter different?
   - ○ amount of atoms
   - ○ movement (energy) of atoms
   - ○ size of atoms
   - ○ shape of atoms
5. What states of matter were present in your breakfast this morning? (List the item and its shape of matter)

   _____

   _____

   _____
6. Can the same molecules be changed from one state of matter to another? Provide at least one example.

   _____

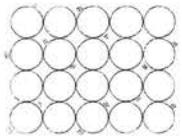
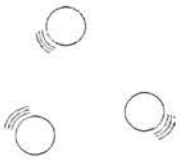
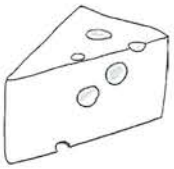
   _____

   _____

Amazing Matter

Tar pitch, the material used to coat roofs and roads, is actually a liquid that flows incredibly slowly. Each drop takes approximately ten years to form and then drop.

Use what you know about matter to help the mouse to find the cheese. Colour the squares about liquids red, the squares about gases green, and the squares about solids yellow. Then draw a line on the yellow path for the mouse to get to the cheese.

liquid	**solid**	has a definite size but no shape			water takes this form above 100°c
has a definite size and shape	**gas**	has no definite size or shape		can be poured	
		water takes this form below 0°c	takes the shape and size of any container		things take this form when they freeze
takes the shape of the container but not the size		water changes to this state between 0°c and 100°c	water changes to this state above 100°c		
	solids take this state when they melt				liquids take this state when they evaporate

You could also try to find out:

- what other slow-flowing liquids exist;
- what the official definitions of solids and liquids are;
- what speed ketchup flows at;
- if you can set up a slow-flowing liquid demonstration.

Changing State

below 100°C		evaporates	condenses	freezes
heat	cool	melts	0°C	100°C
	0°C	cool	heat	

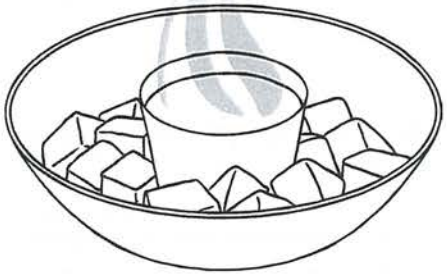
Using the words above complete the sentences below.

If you _____ water to a temperature of _____, it _____ to form water vapour.

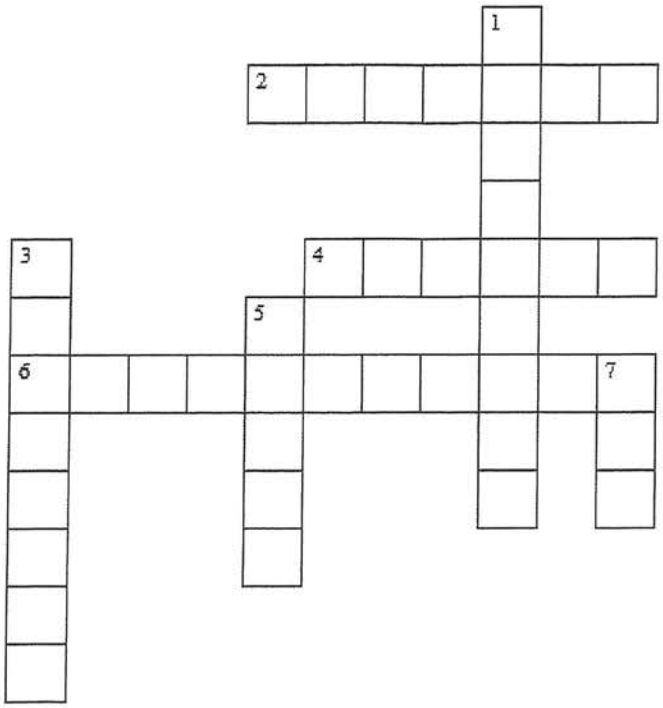
If you _____ water vapour to a temperature of _____, it _____ to form water.

If you _____ water to a temperature of _____, it _____ to form ice.

If you _____ ice to a temperature of _____, it _____ to form water.



States of Matter



DOWN

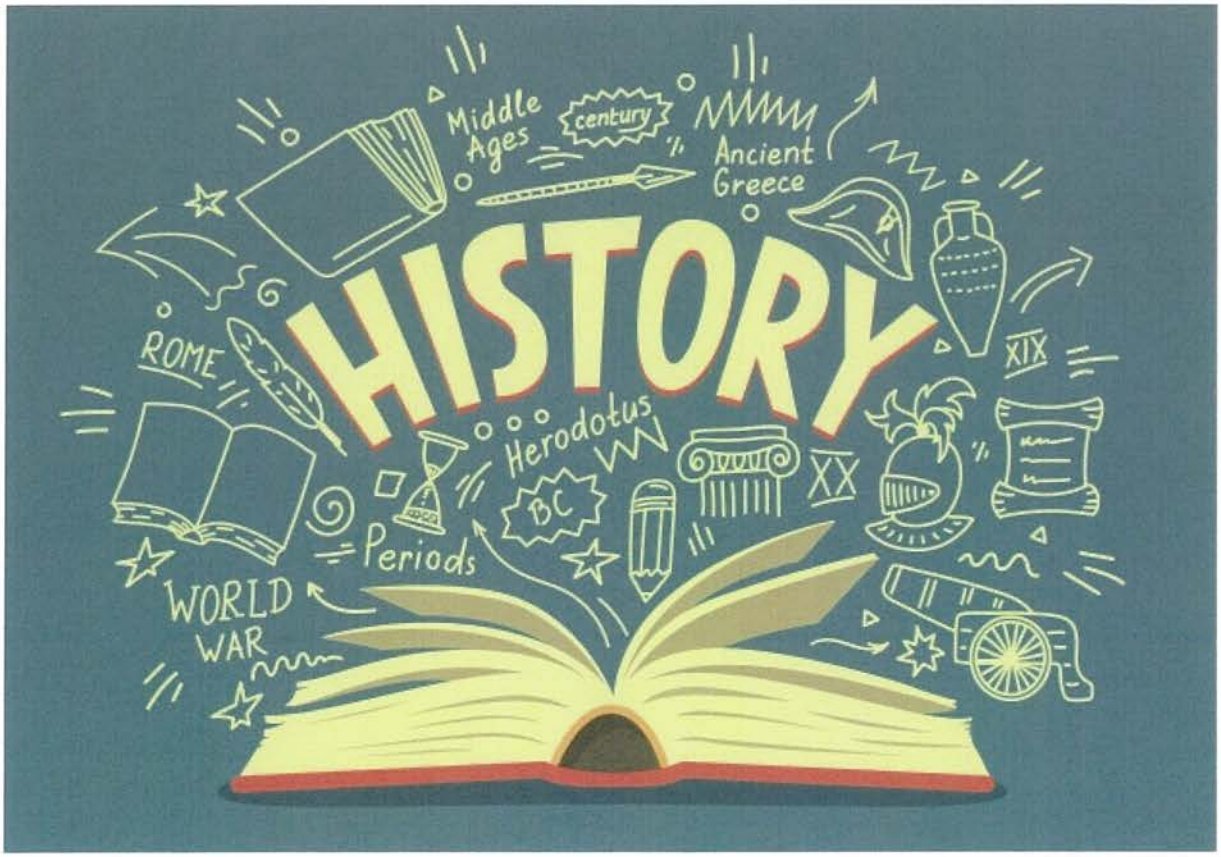
1. When gas or liquid particles become more spread out over time
3. The process that changes a liquid to a solid
5. Particles are in a fixed position and vibrate on the spot
7. Particles move randomly and are well spaced out

ACROSS

2. The process that changes a solid to a liquid
4. Particles are able to flow over each other
6. The process that changes a liquid to a gas

Year 7

Humanities



What is Global Warming?

Global warming is a gradual increase in the overall temperature of the earth's atmosphere. It contributes to the greenhouse effect caused by increased levels of carbon dioxide, CFCs, and other pollutants.

Global warming is causing glaciers to melt, sea levels to rise and cloud forests to die, leaving our wildlife to scramble to find habitats. It has become clear that humans have caused most of the past century's global warming by releasing heat-trapping gases as we power our modern lives.

Activity 1

1. What is global warming?

_____

_____

_____

2. How is global warming effecting our wildlife's habitat?

_____

_____

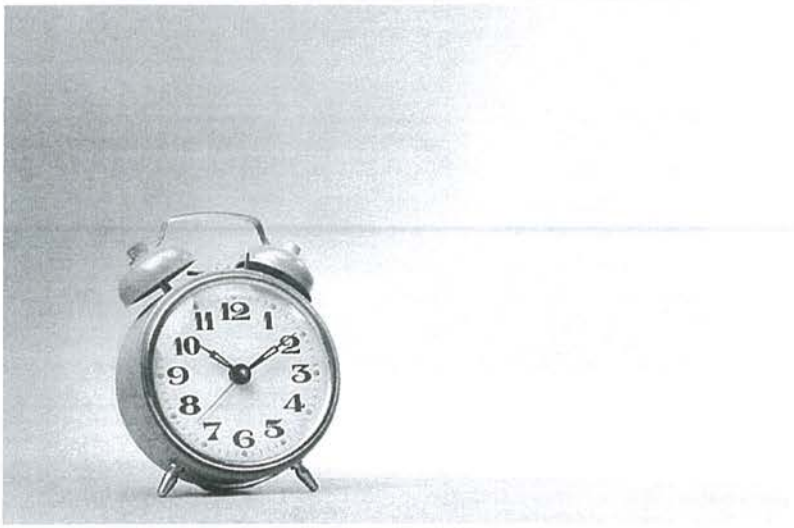
_____

Is it too late?

Humans have caused major climate changes to happen already, and we have set in motion more changes still. Even if we stopped emitting greenhouse gases today, global warming could continue to happen for at least several more decades, if not centuries.

That's because it takes a while for the planet to respond, and because carbon dioxide remains in the atmosphere for hundreds of years. There is a time lag between what we do and when we feel it.

It may not be too late to avoid some of the worst effects of climate change.



The key question is: What will our emissions of carbon dioxide and other pollutants be in the years to come?

Recycling and driving more fuel-efficient cars are examples of changes that will help, but they will not be enough. Because climate change is a truly global, problem with **economic, social, political and moral implications**, the solution will require both a globally-coordinated response (such as **agreements between countries for a push to cleaner forms of energy**) and local efforts in the cities (for example, public transport upgrades to use energy efficient vehicles).

Activity 2

Circle the True or False answers below.

Humans have caused major climate changes.	**True or False**
If we stopped emitting gasses now problems we have started would stop immediately.	**True or False**
If the general public (you and I) stopped using plastic bags that would be enough.	**True or False**
Global warming is a problem that requires global coordinated responses.	**True or False**
If cities upgraded their public transport to be more environmentally friendly this would be a major help to global warming.	**True or False**

Activity 3

What can we do?

Above we discussed some ideas for the world leaders, but what can we, as individuals do? **Fill in the missing spaces using the words in the Word bank.**

1. Environmental Shopping

recycled	**locally**	**packaging**

When we talk about environmental shopping we are talking about buying products from the market or shops that are made of _____ materials, using minimal _____ and coming from renewable sources, etc.

Pay attention to where your clothes, electronics, home goods, and other possessions are made. Go to farmers' markets, shop _____, and know where your food comes from.

2. Donations

landfill	**decreasing**	**habitats**

In this instance, by donating, we mean things that you no longer need or want that are far too good to end up in _____. Most things can

be taken to your local op-shops. Clothes, shoes, household furniture, toys, almost anything that is still in good condition they will accept.

By donating these things, we are saving the environment by _____ landfill, and waste going ending up in the wrong places, which effects our wildlife's _____.

Ask these questions to yourself: Can it be donated? Can it be saved? Recycled? The bin should be the last resort.

3. Volunteer

causes	rubbish	others

Give some of your time to worthy _____.

This does not need to be official, by simply taking the time to bend down and pick up _____ you are able to make a difference. Never leave rubbish, and try to take any that you see left behind by _____.

4. Teach Others

environment	impacts	rescue

Teach others the importance of treating our _____ with care.

Teach children that what we do _____ the planet, but that we have the power to impact the planet in not only negative, but positive ways too.

Children learn from those around them, include them, and encourage them to be part of the _____ efforts.

5. Choose your mode of transport

contribution	efficient	carpooling

If you pick public transportation, you are making a large _____ to the health of our environment.

The most energy _____ modes of travel tend to be train and bus rides.

However, if you don't want to stop using your car, there are many things you can do.

For example, _____, having someone else to ride with you (or you with someone else) is something great to do.

Also, if where you are going isn't too far consider walking or riding a bike!

6. Save Water

drinkable	brisk	lazy

It's true that 75 percent of the world's surface is covered by water, but only one percent of that is _____.

So, make sure to turn off the tap when you are not using it (when brushing your teeth is a great example of when we get _____ and leave the tap running). Take a _____ shower, not a leisurely bath. Every little bit adds up.



7. Use compact fluorescent light bulbs

bulbs	long	fraction

Use LED _____ to save money and energy. They last eight times as _____ and use a _____ of the energy, you can save $30 or more in energy costs over a bulb's lifetime.

8. Use less paper

emails	online	greenhouse

With the fluidity and ease of _____ today, we don't need our bills or mail to be in paper form.

Paying bills _____ instead of on paper saves 10kgs of wood per year, per household.

This also avoids 13kgs of _____ gas emission per household, every year.

However, if you really need to, use both sides of the paper.

9. Use refillable bottles

solution	conserving	disposable

_____ water reduces the amount of energy that is needed to filter it.

But, each year, 17 million barrels of oil produce _____ water bottles. If you want to be part of the _____, invest in a refillable bottle.

Activity 4

Using some of the ideas above, choose three ways you can help our environment in your everyday life.

1. _____

_____

_____

2. _____

_____

_____

3. _____

_____

_____

Outcomes: EN4 - 1A, 7D.

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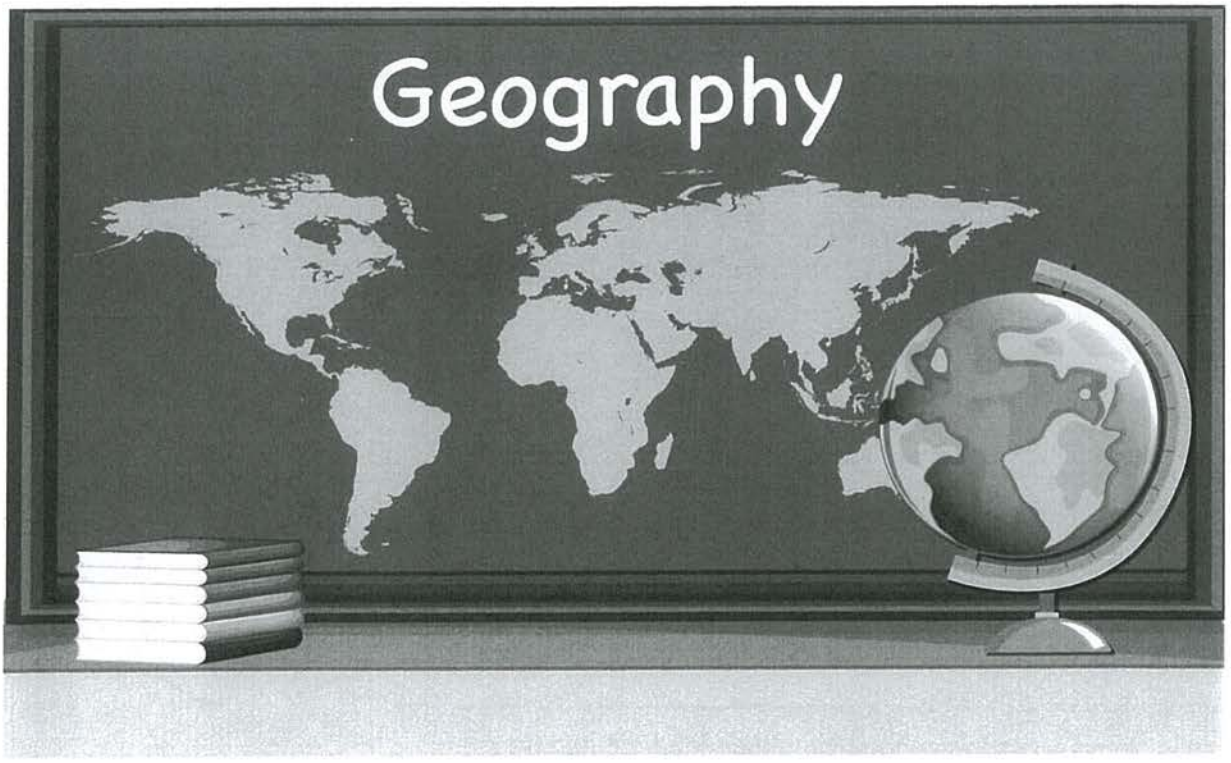
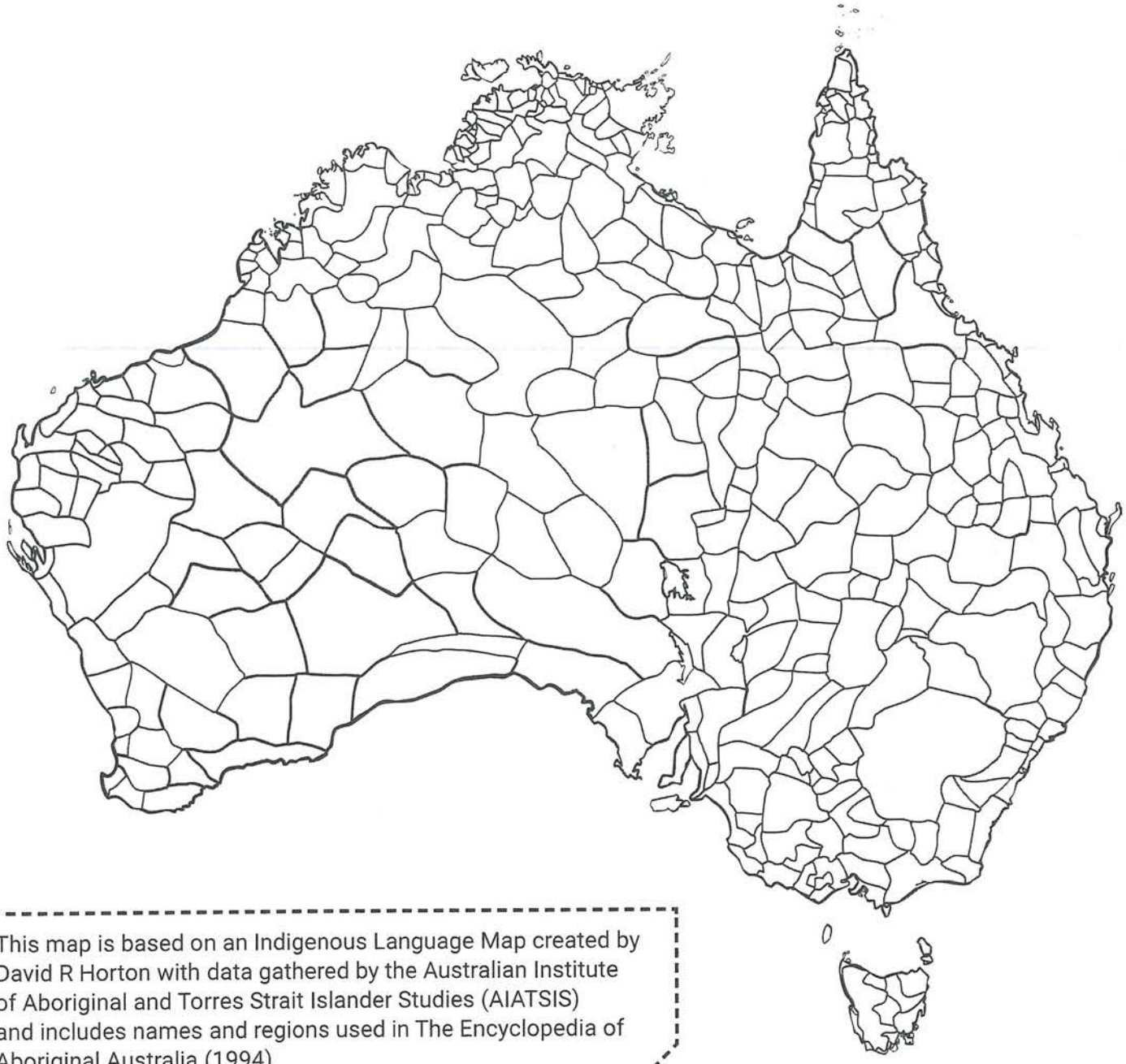
Year 7

Humanities



First Nations Map of Australia Activity

Use the internet to research the First Nations Map of Australia below to answer the questions.



This map is based on an Indigenous Language Map created by David R Horton with data gathered by the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS) and includes names and regions used in The Encyclopedia of Aboriginal Australia (1994).

1. How many nations are there on the First Nations Map?

2. What does the First Nations map tell us about Aboriginal and Torres Strait Islander Peoples culture and identity?

3. Choose one nation from the First Nations map, and write the name below.

4. What is the name of the Indigenous Australian nation where you live?

5. List the names of three Indigenous Australian nations that border the area where you live.

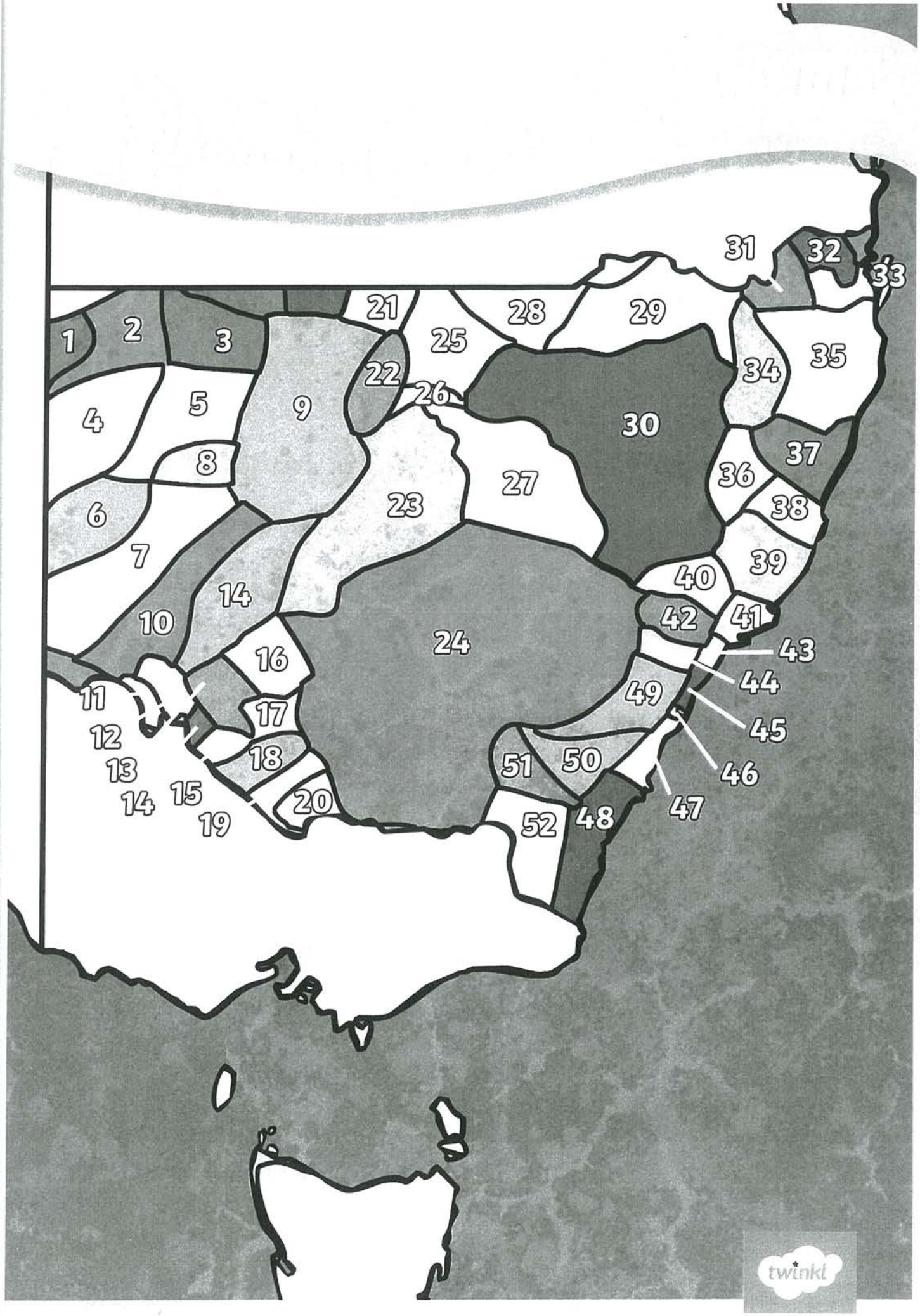
6. Have you ever travelled outside of the place where you live? If so, what is the name of an Indigenous Australian nation that you visited? Where is it on the map and what is its current name?

7. How do you think the Indigenous Australian nations identified in this map, and the people who identify with those places, are impacted by the current naming system and national state and territory borders?

8. Does anything about this map surprise you? What? Why?

9. Australia Post is encouraging people to include Traditional Place names when addressing parcels and letters. Do you think this is a good idea? Why or why not?

10. When addressing mail, Australia Post recommends that the name of the Indigenous Australian nation is written after the recipient's name, but before the street address. Write your address in the space below, as recommended by Australia Post. The Traditional Place name should be followed by the word Country. For example, if you live in the Bundjalung nation, you would write Bundjalung Country.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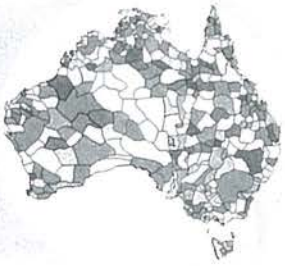


1 **Pirlatapa**

Eyre

2 **Wadigali**

Eyre

3 **Karenggapa**

Eyre

4 **Malyangaba**

Spencer

5 **Bandjigali**

Riverine

6 **Wiljali**

Riverine

7 **Danggali**

Riverine

8 **Wandjiwalgu**

Riverine

9 **Barundji**

Riverine

10 **Barkindji**

Riverine

11 **Latje Latje**

Riverine

12 **Kureninji**

Riverine

13 **Madi Madi**

Riverine

14 **Dadi Dadi**

Riverine

15 **Wadi Wadi**

Riverine

16 **Yitha Yitha**

Riverine

17 **Nari Nari**

Riverine

18 **Wemba Wemba**

Riverine

19 **Baraba Baraba**

Riverine

20 **Yorta Yorta**

Riverine

21 **Kunja**

Riverine

22 **Gunu**

Riverine

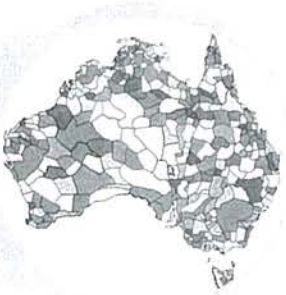
23 **Wongaibon**

Southeast

24 **Wiradjuri**

Southeast

First Nations Map of New South Wales



25 **Wuruwari**

Riverine

26 **Barranbinya**

Riverine

27 **Wadi Wailwan**

Riverine

28 **Kooma**

Riverine

29 **Bigambuk**

Riverine

30 **Kamilaroi**

Riverine

31 **Barunggam**

Riverine

32 **Northeast**

Riverine

33 **Yuggera**

Northeast

34 **Ngarabal**

Southeast

35 **Bundjalung**

Southeast

36 **Nganyaywana**

Southeast

37 **Gumbainggir**

Southeast

38 **Dainggatti**

Southeast

39 **Biripi**

Southeast

40 **Geawegal**

Southeast

41 **Worimi**

Southeast

42 **Wonnarua**

Southeast

43 **Awabakal**

Southeast

44 **Darkinung**

Southeast

45 **Kuring-gai**

Southeast

46 **Eora**

Southeast

47 **Tharawal**

Southeast

48 **Yuin**

Southeast

49 **Dharug**

Southeast

50 **Gundungurra**

Southeast

51 **Ngunawal**

Southeast

52 **Ngarigo**

Southeast

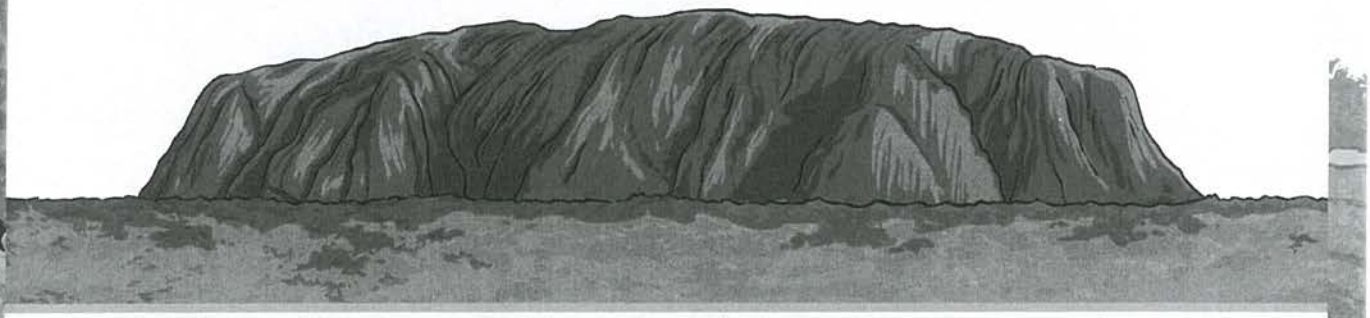
This map is based on an Indigenous Language Map created by David R Horton with data gathered by the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS) and includes names and regions used in The Encyclopedia of Aboriginal Australia (1994).

Uluru, Kakadu National Park and The Bungle Bungle Range Information Sheet

Read this information sheet before answering the comprehension questions.

Uluru

- Uluru, one of Australia's most recognisable landmarks, is located in the Northern Territory.
- Uluru is located in the Uluru-Kata Tjuta National Park and is listed as a World Heritage Site by UNESCO.
- Uluru is one of the largest single rock monoliths, upright block of stone, in the world.
- Uluru is the Aboriginal People's official name for the rock, but it has also been known as Ayers Rock for a time. It was named this after Sir Henry Ayers, the eighth premier of South Australia. Uluru is sacred to the Pitjantjatjara, the Aboriginal People of the area, known as **Anangu**.

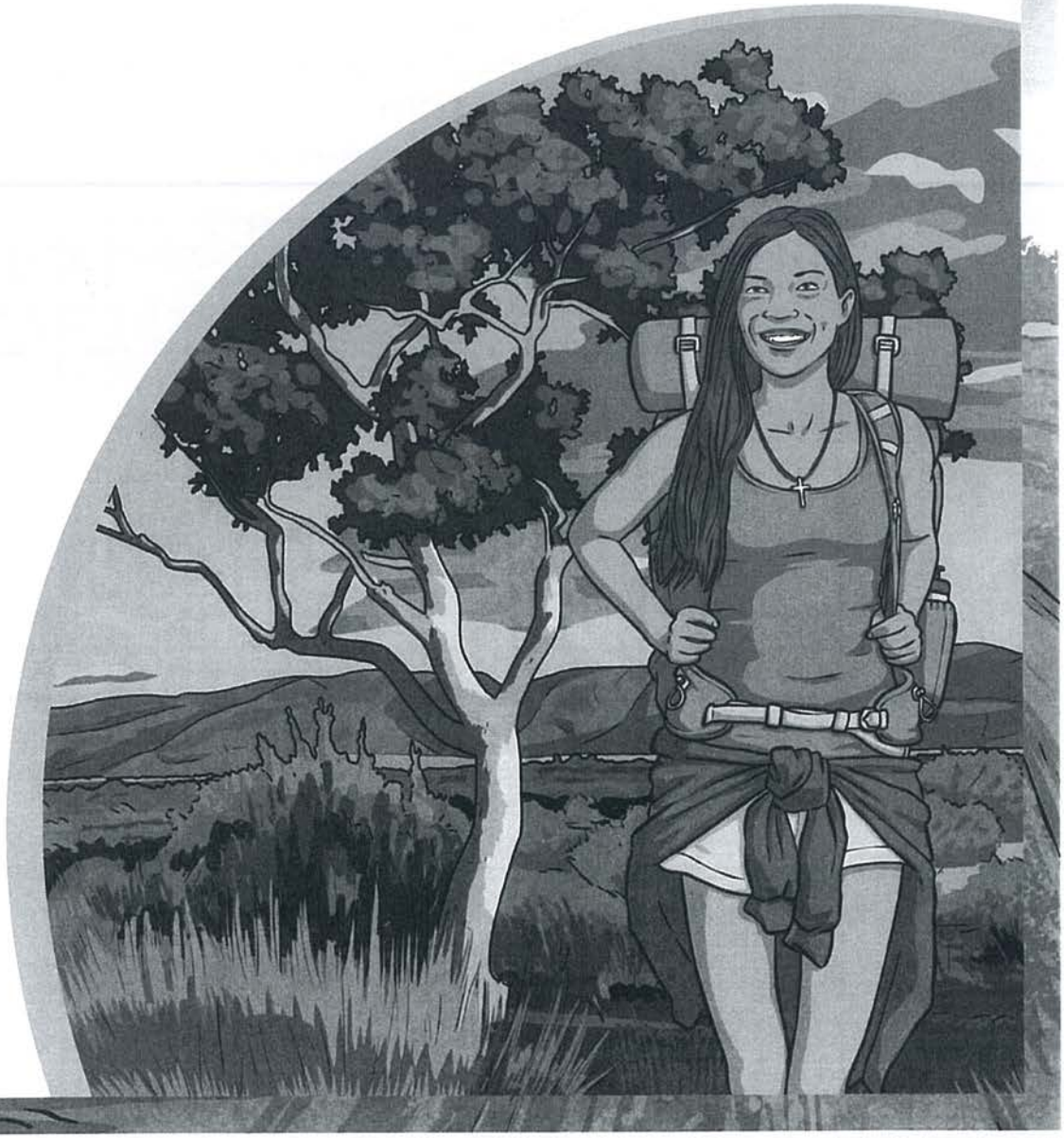


Kakadu National Park

- Kakadu National Park is located 240km east of Darwin in Australia's Northern Territory. It is a World Heritage-listed national park.
- Kakadu is almost 20 000 square kilometres in size.
- Kakadu is home to 2000 plant species, saltwater crocodiles, flatback turtles, exotic bird life, cascading waterfalls and Aboriginal paintings.
- Visitors to Kakadu National Park can observe birds, fish, hike, tour with a ranger, swim, visit the waterfalls and observe paintings.

The Bungle Bungle Range

- The Bungle Bungles are located in the World Heritage listed Purnululu National Park, in the Kimberley region of Western Australia.
- The Bungle Bungles are a striking geological landmark with orange and black stripes across beehive-like mounds.
- Visitors can explore the ranges on foot, take a scenic flight and camp.



Comprehension Questions

Read the information sheet on Uluru, Kakadu National Park and The Bungle Bungle Range and answer the following questions.

1. Mark on the map of Australia the location of Uluru, The Bungle Bungle Range and Kakadu National Park.

2. What is a monolith?

_____

3. Why would you need a ranger to go with you when touring Kakadu?

_____

_____

4. What is something Uluru, The Bungle Bungles and Kakadu National Park have in common?

5. Why, do you think, Uluru is one of the most recognisable and famous landmarks in Australia?

6. What are some activities you could do at all three natural locations?

7. What is an interesting fact you learned about Uluru, The Bungle Bungle Range and Kakadu National Park?

8. What five items would you include in your backpack when visiting these three locations?

9. Which location would be your least favourite to visit and why?

10. Which one would you prefer to visit and why?

Year 7

PE

Using social media safely

There are three different perspectives we use when writing and speaking:

1

First person
First person is from the speaker's or writer's own perspective.
e.g. **I like using Facebook.**

We can use first person to express our personal opinion, to write complaint letters and to write reflections. Only use first person if you are asked for your opinion.

2

Second person
Second person is used when the writer or speaker directly addresses someone else.
e.g. **You should be careful about the photos you post online.**

Sometimes the 'you' is general (all people). Only use second person if you are giving specific advice or recommendations to a person or a group of people.

3

Third person
Third person is used for writing and speaking about someone or something.
e.g. **Many young people post photos online that are embarrassing or inappropriate.**

Third person is used for factual, academic and technical writing in a subject.

Draw a tick under a heading to show if each sentence is an example of first person, second person or third person	First person	Second person	Third person
1. The Australian Government's eSafety website provides useful tips on how to be safe when using social media			
2. If you share a photo online, you might be sharing with people you do not know.			
3. I never 'friend' anyone who I do not actually know.			
4. You should never share your personal details with anyone over the net.			
5. All social networking sites have their own privacy and security settings.			
6. You should make sure you know how each site works and how to change your settings.			
7. But what do I do if I receive a message from someone I don't know?			
8. You should never reply to a random text message or internet message, unless you know who sent it.			
9. Online videos and photos are private and personal so they should only be shared with friends.			

1. **Change this sentence from second person to third person**
   You should be careful to protect your online reputation and not post photos that might be embarrassing.

   _____

   _____

2. **Change this sentence from first person to third person.**
   I think that clicking on links can be dangerous as they could contain malware or viruses.

   _____

   _____

Stay Safe Online

List 5 ways to stay safe online.

1. _____

_____

2. _____

_____

3. _____

_____

4. _____

_____

5. _____

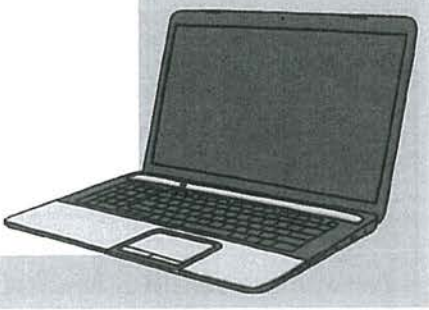
_____

Use the frame below to design your own poster about internet safety.

Internet Safety

n	p	t	l	l	o	r	t	t	w
s	c	s	s	a	f	e	t	y	v
g	d	d	f	m	f	j	d	c	v
n	r	r	n	s	a	e	d	a	i
i	e	o	l	p	c	e	n	v	r
t	t	w	i	a	e	z	e	i	u
t	t	s	q	m	b	v	i	r	s
e	i	s	d	p	o	t	r	p	d
s	w	a	s	a	o	o	f	k	u
j	t	p	y	a	k	u	u	p	t

settings
safety
twitter
passwords
friend
spam
privacy
facebook
troll
virus



Personal Information: Who Can We Share It With?

This is a great activity to stimulate conversation with your child about staying say online. Cut out the cards and take it in turns to choose one and read the scenario. For each card, discuss whether you can be sure who you are sharing information with, and whether the information is appropriate to share. Before starting it is worth defining who a stranger is and what constitutes personal information.

You've got an online friend whom you've never met in real life. You've been friends online for ages and get on really well. Your online friend sends you a photograph. They're a child just like you. They ask for your picture. Should you send it to them?

You're chatting to your grandma via a video call. Is it OK to share personal information?

Your teacher is checking letters for a school trip. She notices that your parents forgot to put their phone number on. She asks for the number so she can add it to the letter. Can you share it with her?

You and your friends are playing in the park. Someone you haven't met before begins talking to you and asks personal questions about your name and address. Is it OK to share your personal information?

You are talking online while playing a game. A person you have spoken to a lot begins to ask for personal information as they'd like to be your friend. Is it OK to share this information?

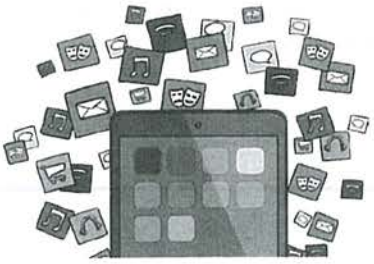
You're talking to a friend from your class through an online game. Only you and your friend are involved in the discussion. Can you share personal information?

You are talking to your best friend's mum on the school playground. She wants to arrange for you to go for tea one night after school and asks for your parents' phone number so she can call to arrange it. Should you share it?

You are going on a bus journey and someone you don't know begins talking to you. Should you share personal information with this person?

You are playing a game online and someone you have talked to lots, and who seems really nice, begins to ask personal questions such as your name and address. Should you give them this information?

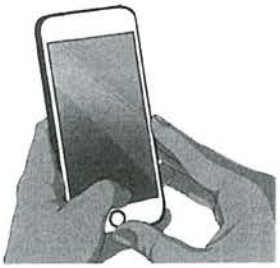
On a social media app, you have a friend you have never met in real life. You get on really well and like the same things. Your online friend asks for your address. Should you share it?



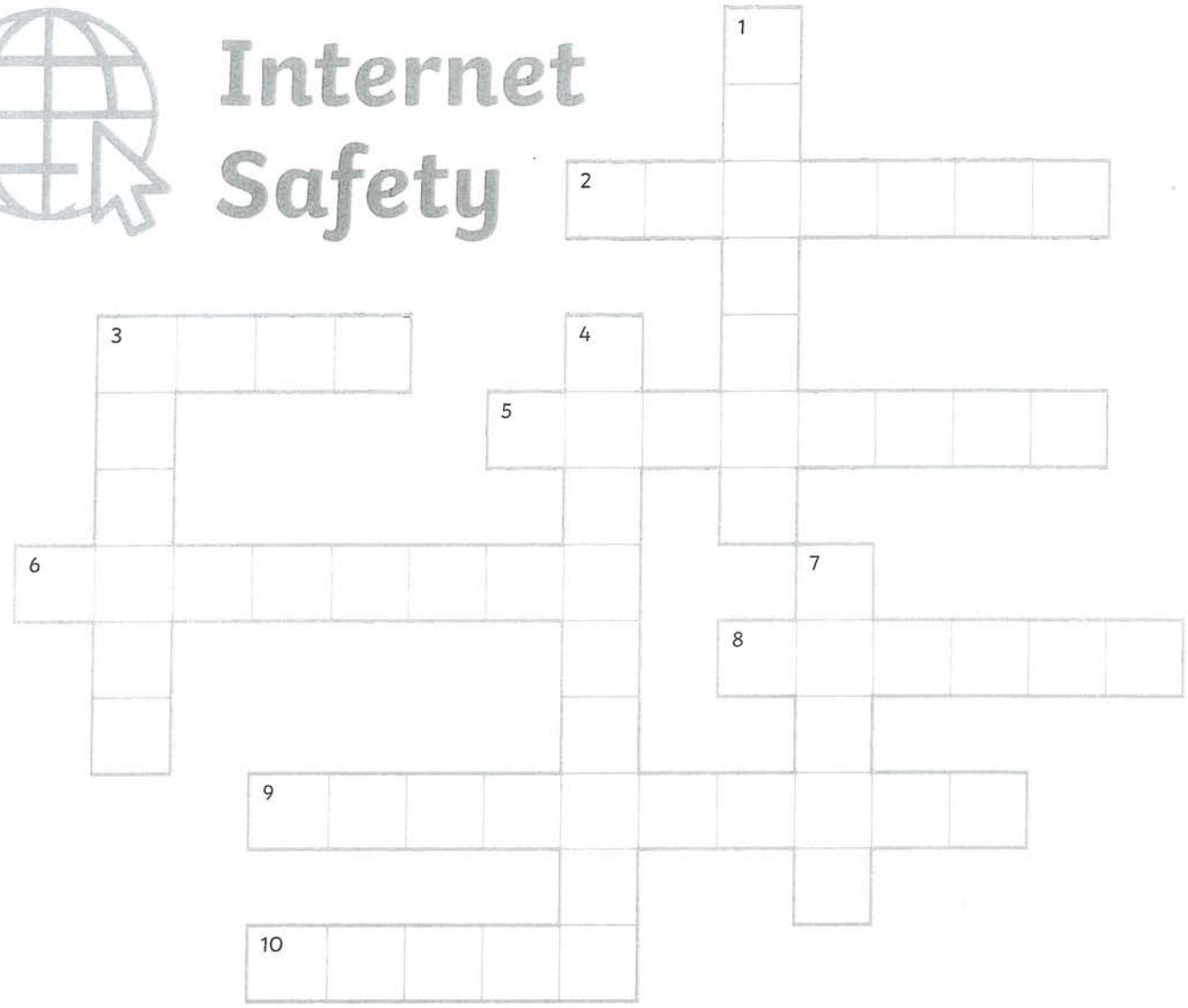
You are at the library and the librarian asks for your address so that you can borrow a book. Should you share this information?

You have become lost while on a day trip to the zoo. You tell a member of staff with a zoo uniform on. They ask for your name to help you find your parents. Is it OK to share this information?

You are at a family party. Your parents have just got a new phone number. Your uncle asks for their new number so he can update it on his phone. Do you share this information?



Internet Safety



Across

2	So that strangers can't talk to me, I have my _____ settings restricted.
3	All of my _____ email goes into my junk mail.
5	I like to go on my _____ account to catch up with old friends.
6	I adjust my _____ to what I prefer.
8	My _____ and I keep in touch through Facebook.
9	I would call somebody a _____ who says horrible things online.
10	I constantly check my computer so I don't get a _____.

Down

1	I like to follow celebrities on my _____ account.
3	I have to be careful of my _____ when I am on the internet.
4	I have many different _____ just in case somebody finds one of them out.
7	A _____ hides behind the anonymity of the internet and winds people up.

Changes during puberty

A capital letter is used at the beginning of sentences. Proper nouns also need a capital. A full stop is needed to show the end of a sentence.

Mark the capital letters and full stops in these sentences.

(Paragraph 1 has 5 sentences)

puberty is a time of great change in a person's life puberty is also called adolescence during this time, a young person's appearance can change sexual and reproductive organs mature and internal changes to the body and brain also occur in addition, there are emotional and social challenges during puberty

(Paragraph 2 has 5 sentences)

one of the most obvious aspects of change during puberty involves physical appearance female body changes involve breast development, changes in body shape and height, skin changes, growth of body hair and the start of menstruation (periods) males also experience changes in body shape and height, skin changes and in the growth of body hair changes in the male body involve growth of the penis and testes and deepening of the voice these changes can vary from person to person and the start of changes can occur at different times

(Paragraph 3 has 4 sentences)

puberty is also a time of internal changes for a young person adolescence is an important time for brain development bones, organs and body systems also change in size and capacity young people are growing and changing very quickly during puberty so sometimes there can be problems with physical balance and co-ordination

(Paragraph 4 has 4 sentences)

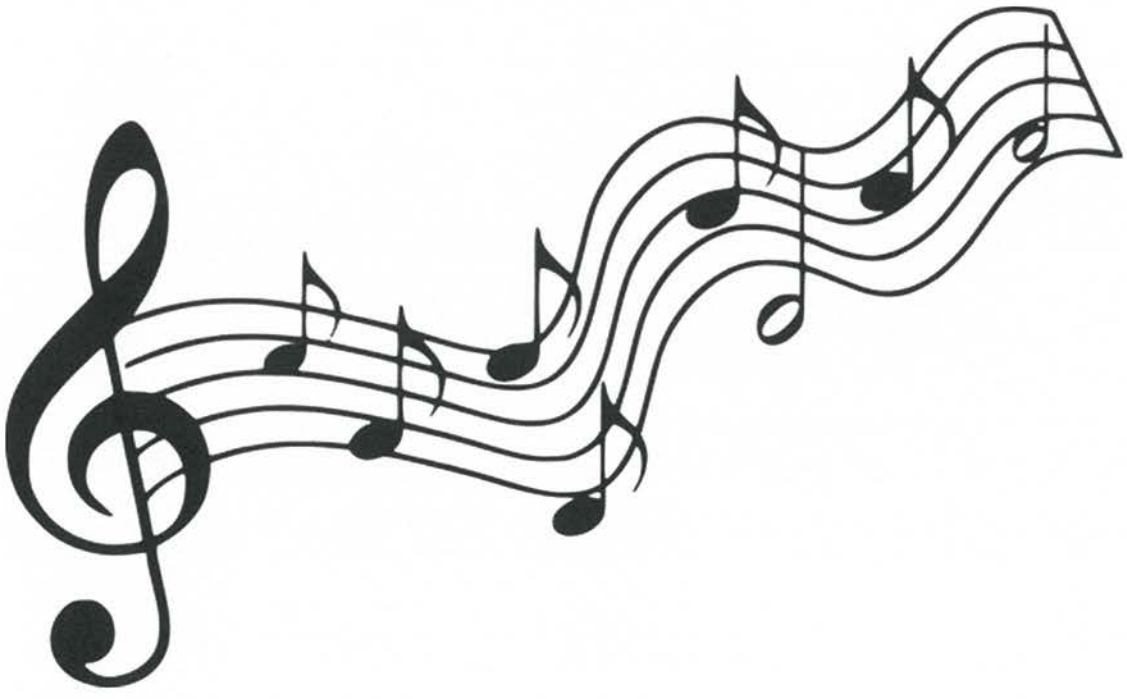
emotional changes are also typical during puberty the sudden release of hormones into a young person's body may cause extreme emotions and mood swings a young person may feel full of energy at times and extremely tired at other times changes to the body may cause feelings of self-consciousness or embarrassment

(Paragraph 5 has 4 sentences)

social changes are also common during puberty young people often develop new interests and new friendship groups many young people strive to become more independent from their parents and sometimes this gives rise to conflict and arguments it is important for young people and parents to communicate openly and respectfully so that any issues can be resolved

Year 7

Music



Note Names

The Table below shows all the different note names, their values and equivalent rests

Symbol	Name	value	Rest
	semibreve	4	
	minim	2	
	crotchet	1	
	quaver	1/2	
	Pair of quavers	1/2 + 1/2= 1	
	Semiquaver	1/4	

Drawing Notes

Name each note and copy it into the space 10 times. Be sure to make the stem go the correct side!

Note	Name	Copy 10 Times
		
		
		
		
		
		
		
		
		

Drawing Rests

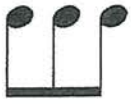
Name each rest and copy it into the space 10 times.

Rest	Name	Copy 10 Times
		
		
		
		
		

Name: _____ Class: _____

Drawing Joined Notes

Name each group of notes and copy it into the space 10 times.

Notes	Name	Copy 10 Times
		
		
		
		
		
		
		

Time Signatures

A Time Signature consists of TWO Numbers. Each number has a different meaning.

The number on the bottom tells you what TYPE of beat will be in the bar.

The number on the TOP tells you how many beats can be in the bar.

Minim time has a 2 on the bottom.

Crotchet time has a 4 on the bottom.

Quaver time has an 8 on the bottom.

Time Signature	Meaning
$\frac{2}{4}$	2 crotchet beats per bar
$\frac{3}{4}$	3 crotchet beats per bar
$\frac{4}{4}$	4 crotchet beats per bar
C	Common Time 4 crotchet beats per bar
$\frac{3}{8}$	3 quaver beats per bar
$\frac{6}{8}$	6 quaver beats per bar
$\frac{2}{2}$	2 minim beats per bar

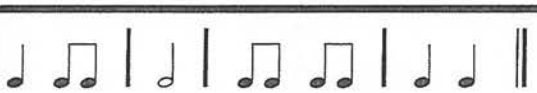
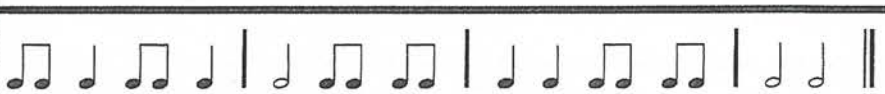
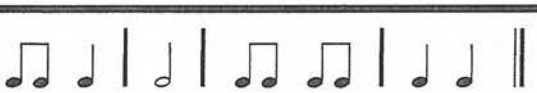
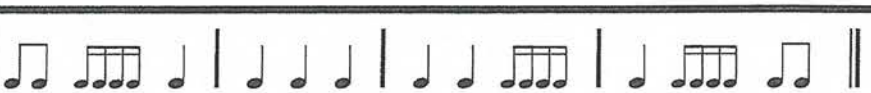
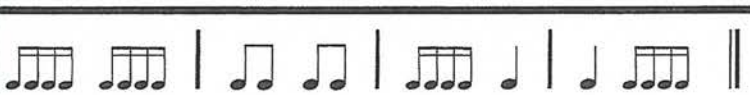
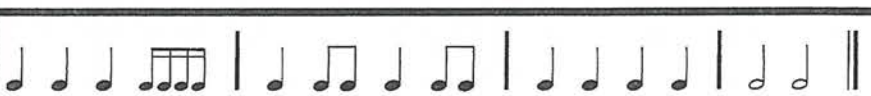
Correctly draw each rhythm into the column that matches it's time signature

2 4	3 4	4 4

Write the correct time signature next to the rhythm. When you have finished, try clapping them!

$\frac{2}{4}$ $\frac{3}{4}$ $\frac{4}{4}$

Time signature	Rhythm
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Correctly draw each rhythm into the column that matches it's time signature

2 4	3 4	4 4

Notes on the Treble Stave

The names of the notes on the Treble stave can be remembered with the following, and always start with the lowest note:

LINES

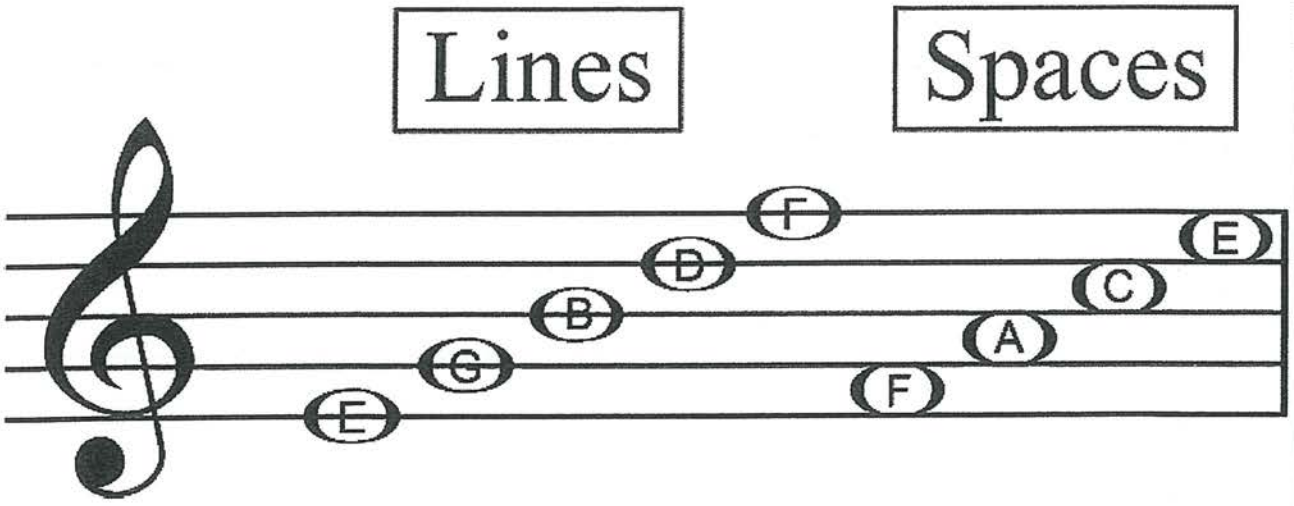
Every Good Boy Deserves Fruit

SPACES

F A C E

OR

I say: It spells Face in the Space



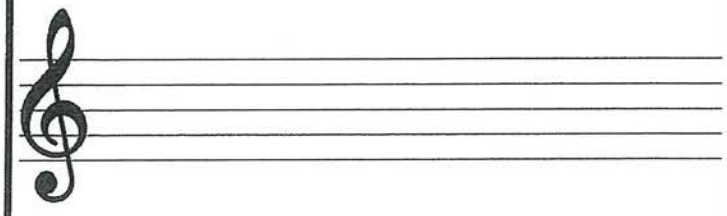
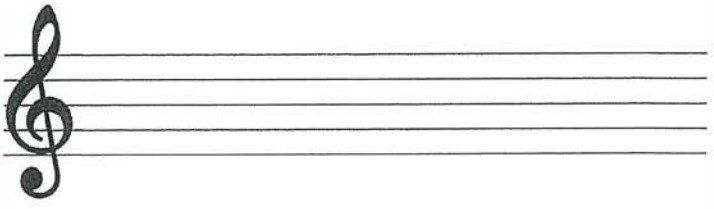
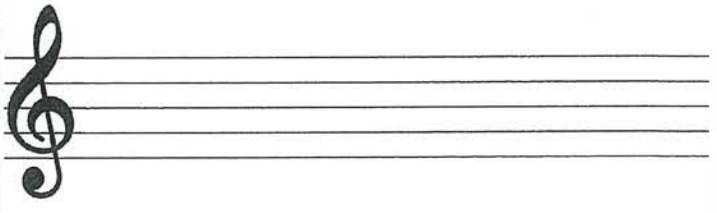
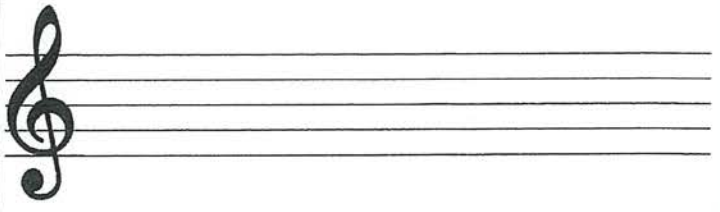
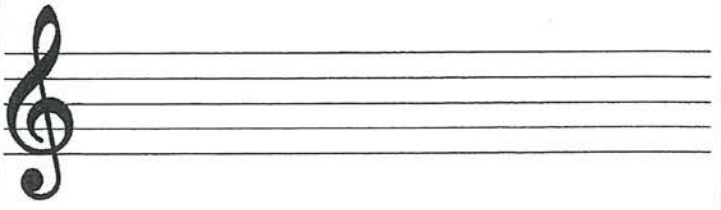
Drawing Notes in the Spaces

Name each note and copy it onto the stave 10 times.

Note	Name	Copy 10 Times
		
		
		
		

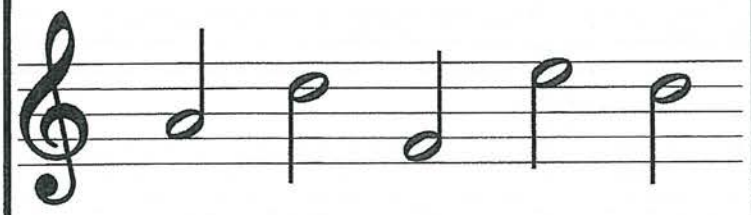
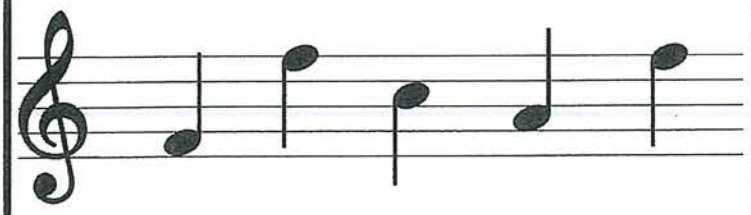
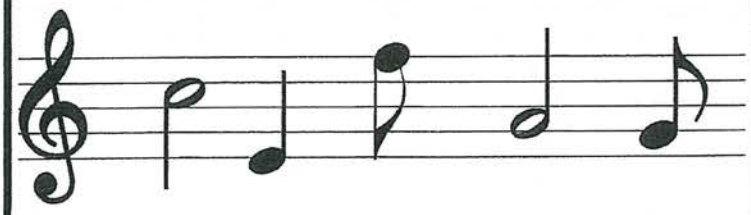
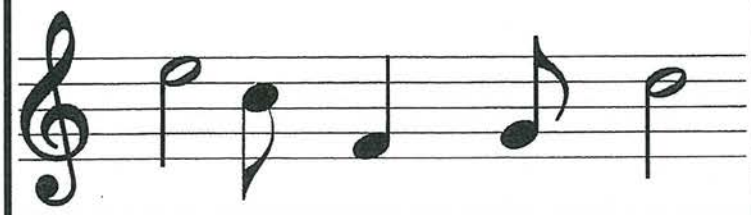
Drawing Notes on the Lines

Name each note and copy it onto the stave 10 times.

Note	Name	Copy 10 Times
		
		
		
		
		

Naming Notes 1

Name each note in the space provided

1		
2		
3		
4		
5		

Naming Notes 2

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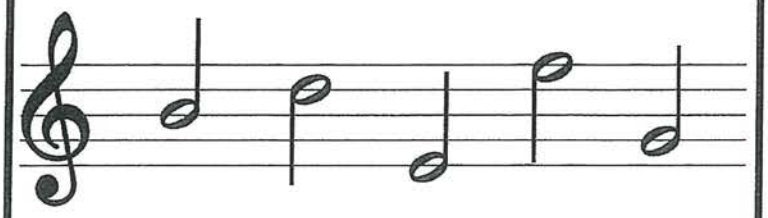
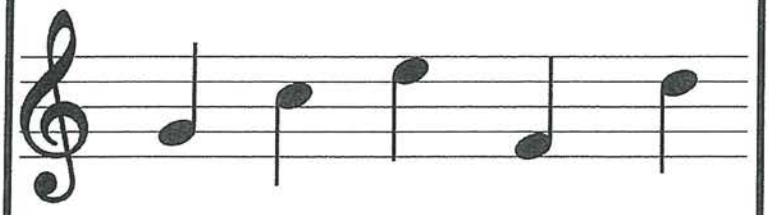
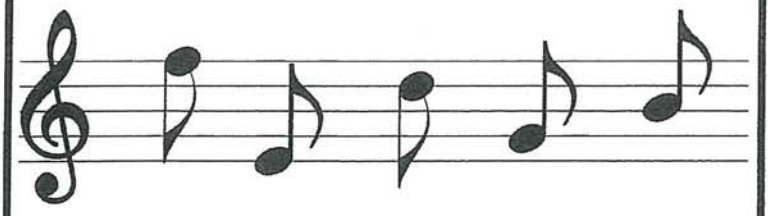
1		
2		
3		
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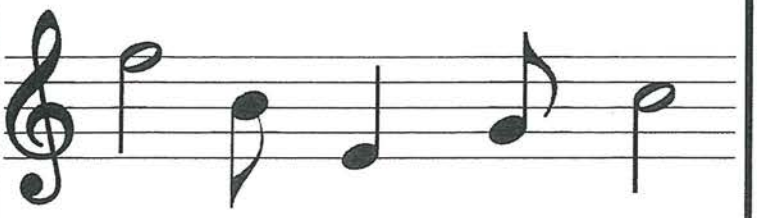
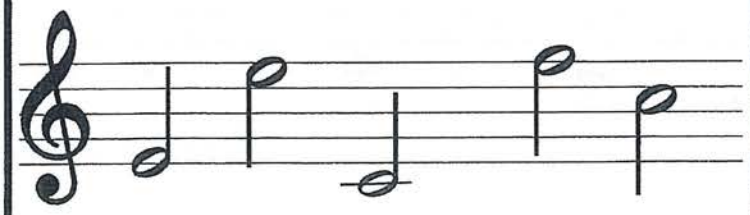
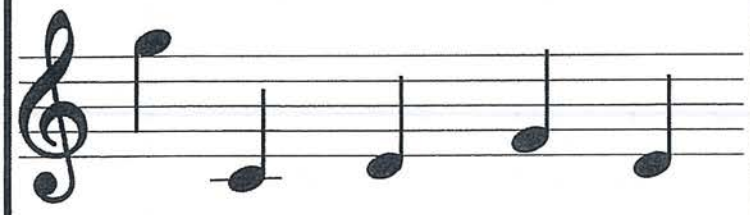
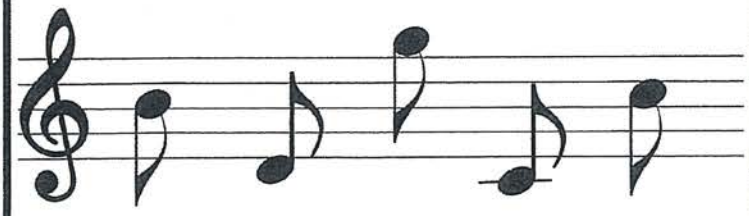
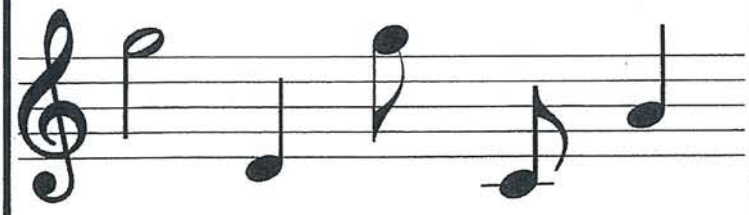
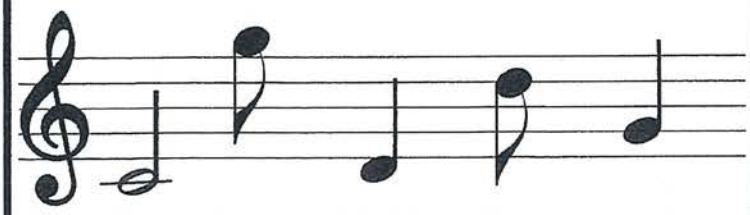
5		

Naming Notes 3

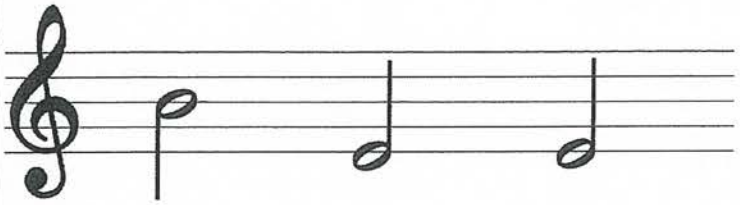
Name each note in the space provided

1		
2		
3		
4		
5		

Name: _____ Class: _____

Note Spelling I

Write the word spelt by the notes in the space provided

1		
2		
3		
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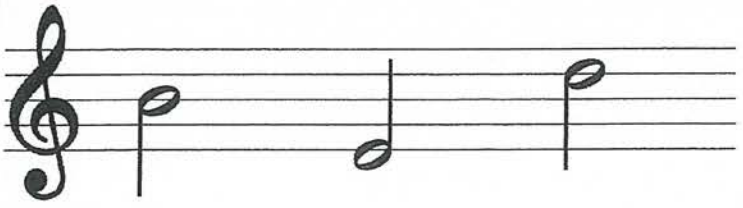
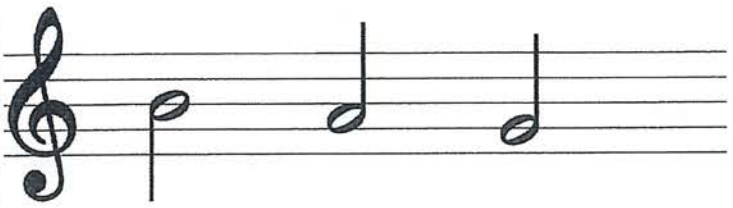
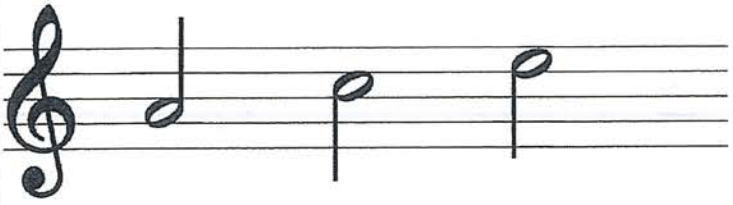
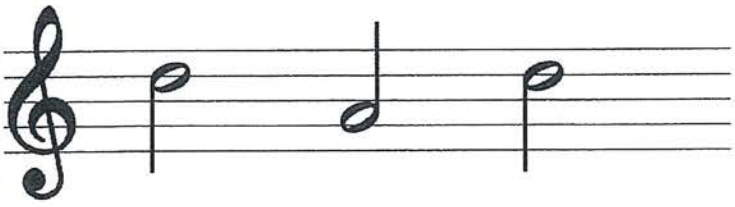
5		

Name: _____ Class: _____

Note Spelling 2

Write the word spelt by the notes in the space provided

1		
2		
3		
4		
5		

Name: _____ Class: _____

Note Spelling 3

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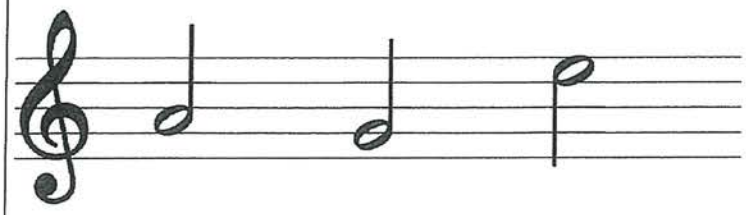
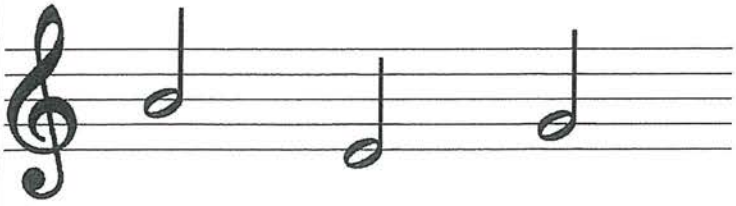
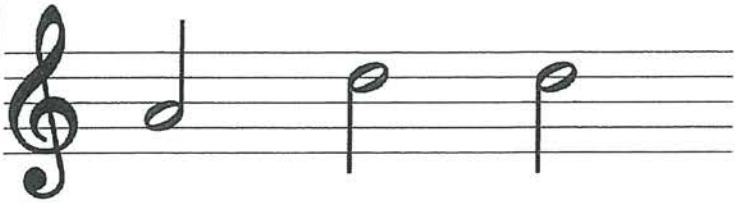
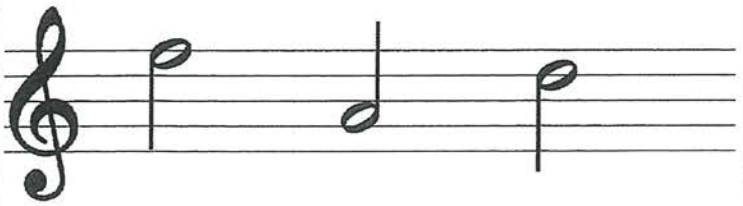
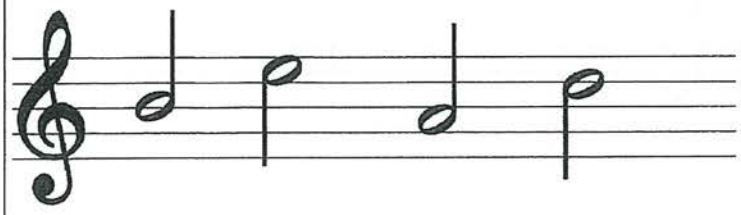
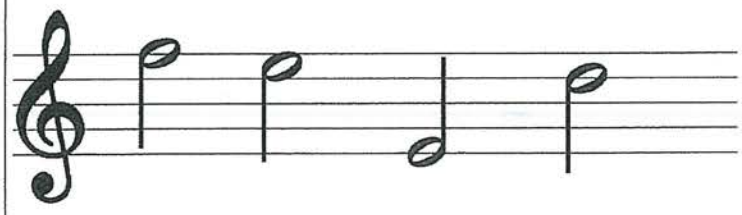
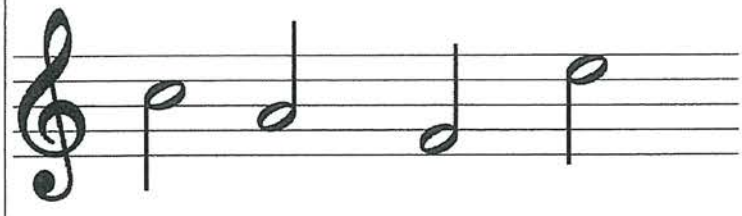
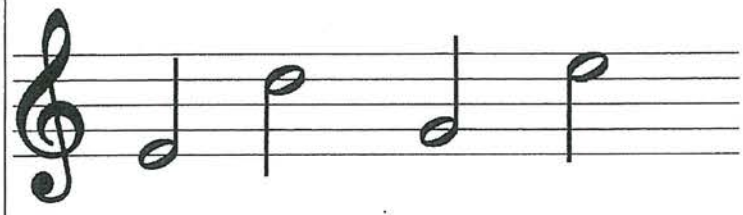
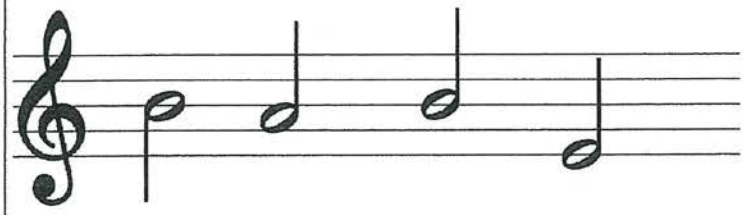
1		
2		
3		
4		
5		

Name: _____ Class: _____

Note Spelling 4

Write the word spelt by the notes in the space provided

1		
2		
3		
4		
5		

Name: _____ Class: _____

Note Spelling 5

Write the word spelt by the notes in the space provided

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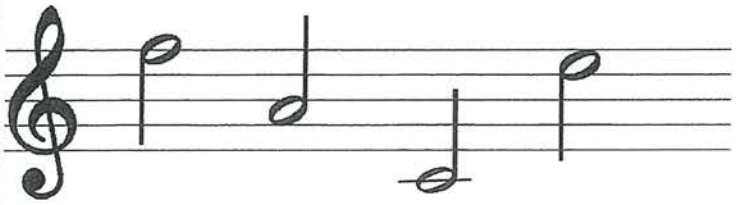
2		
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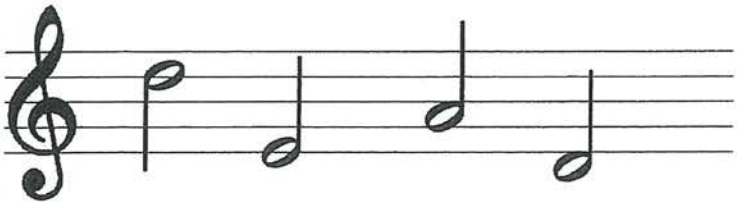
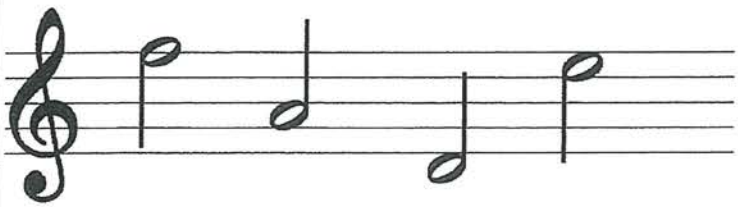
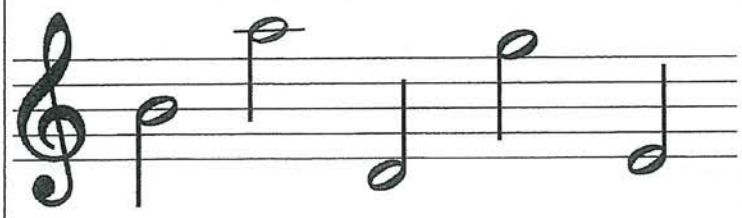
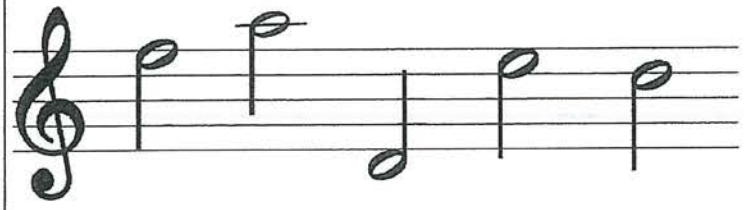
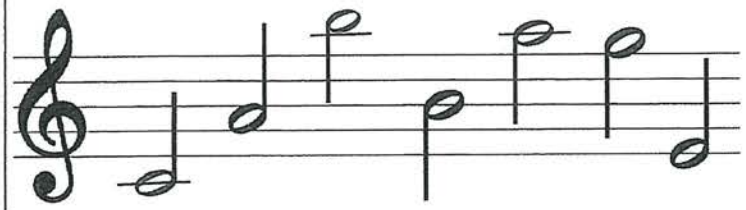
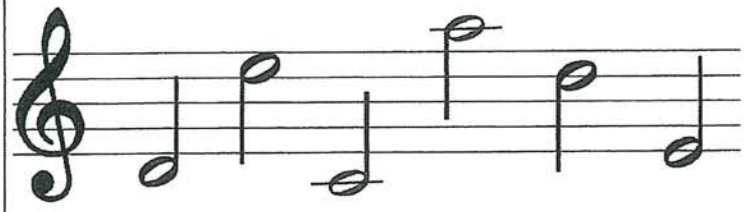
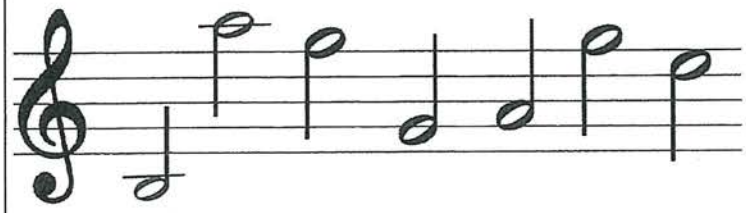
4		
5		

Name: _____ Class: _____

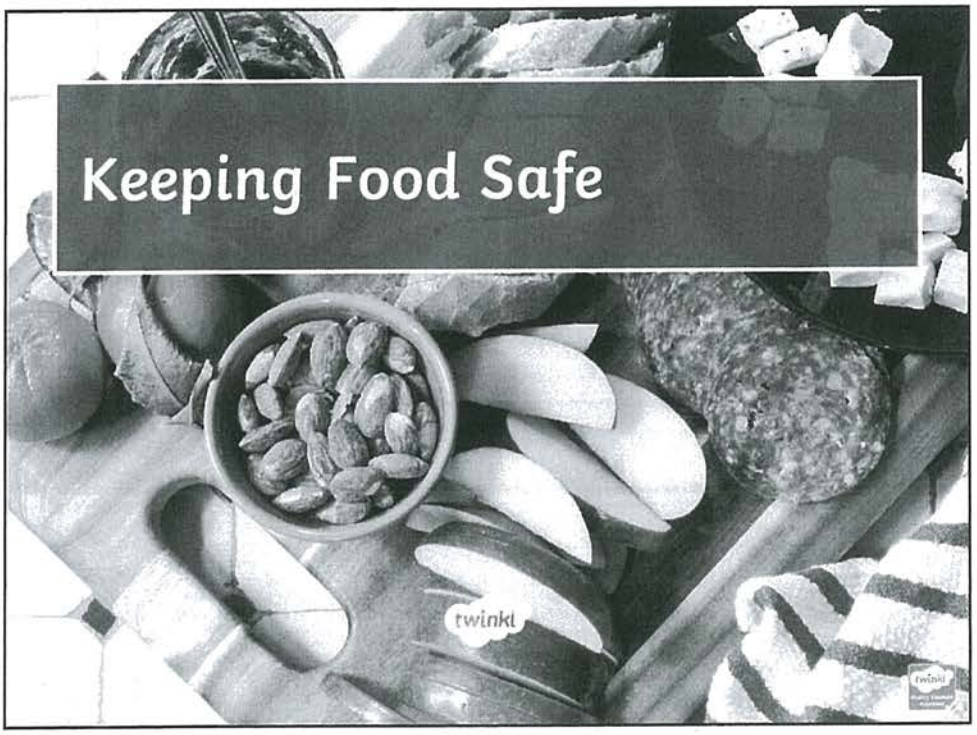
Note Spelling 6

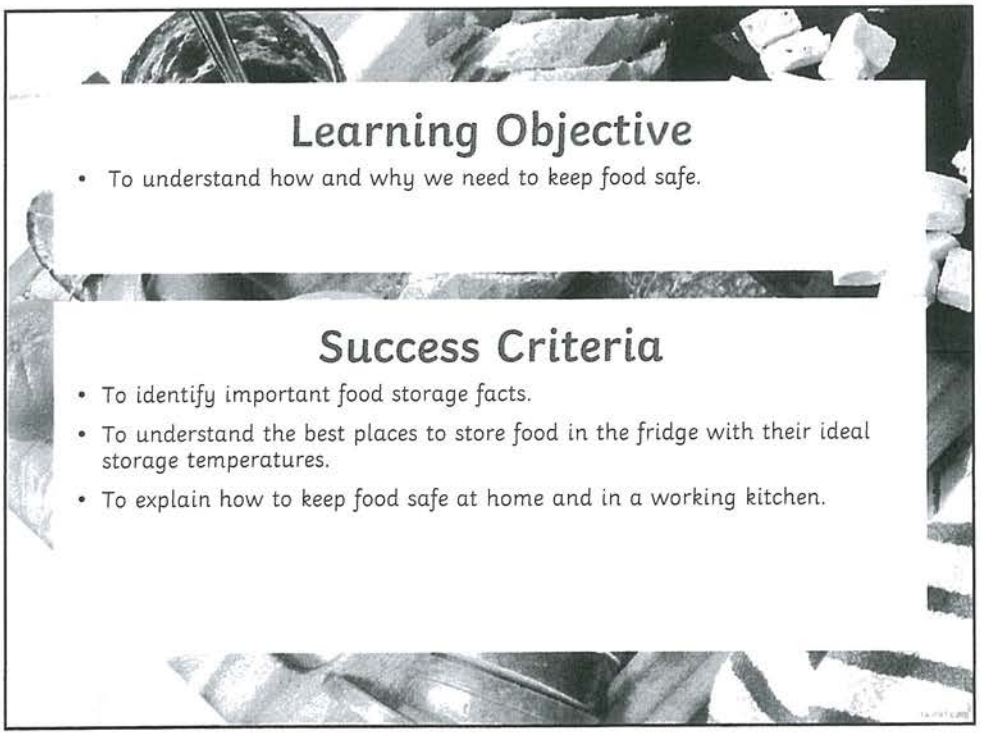
Write the word spelt by the notes in the space provided

1		
2		
3		
4		
5		

Year 7

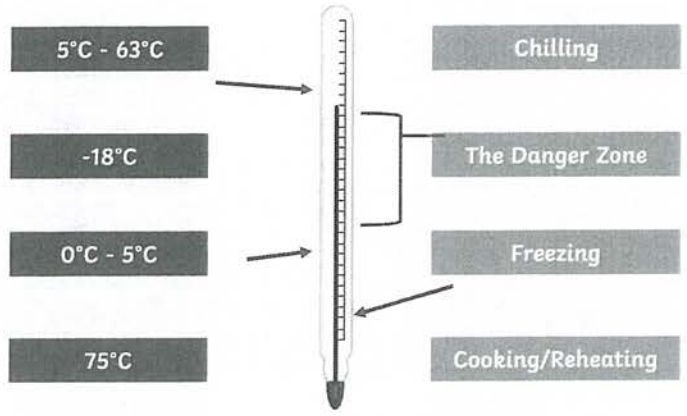
Technology Mandatory


Keeping Food Safe
twinkl

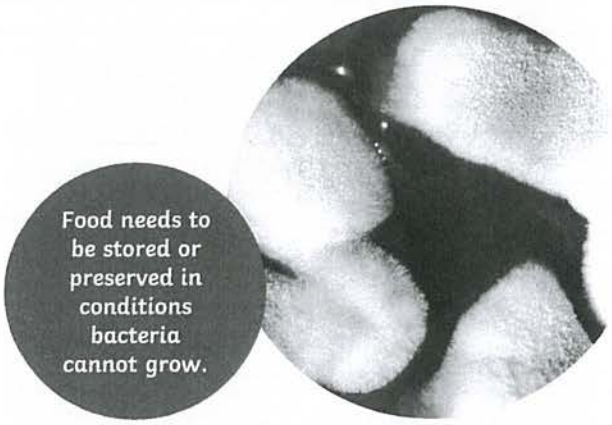

Learning Objective
• To understand how and why we need to keep food safe.
Success Criteria
• To identify important food storage facts.
• To understand the best places to store food in the fridge with their ideal storage temperatures.
• To explain how to keep food safe at home and in a working kitchen.

The Thermometer

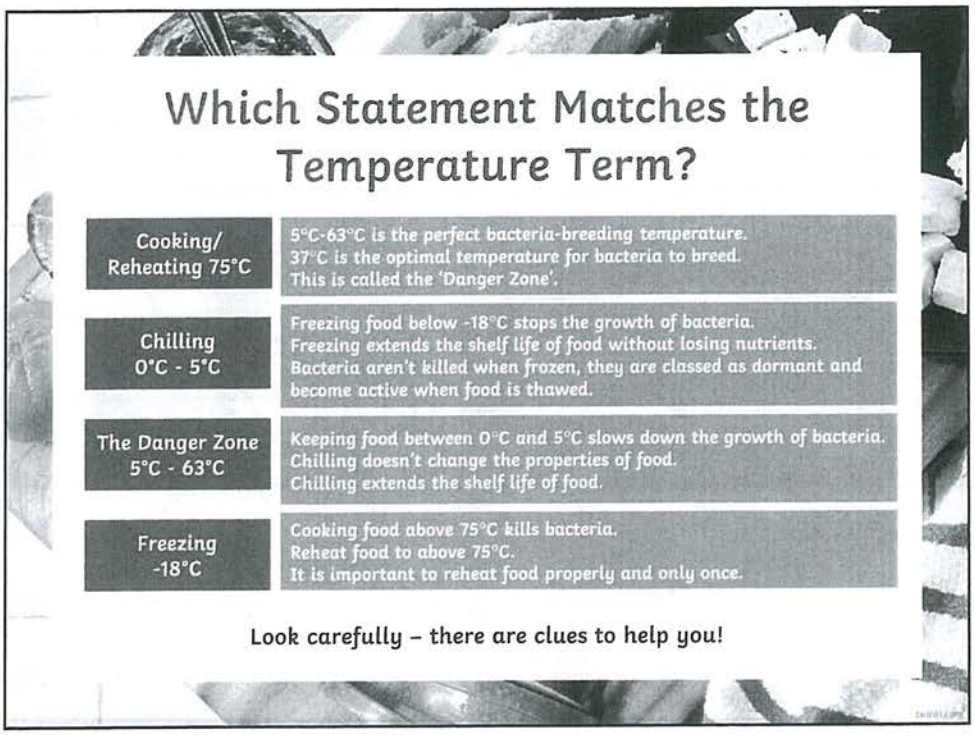
Where do the temperatures and statements go on the thermometer?

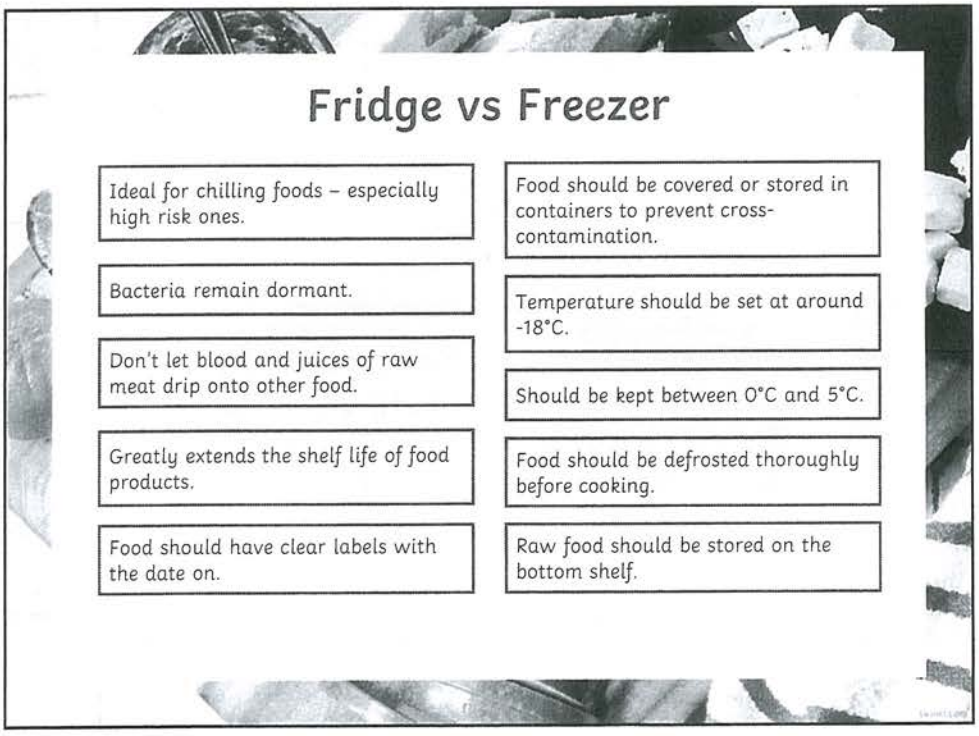


Why Is It Important to Store Food Safely?



Although we need good bacteria in our bodies to help digest food and maintain a good digestive balance, some bacteria is harmful and can cause serious illnesses.


Which Statement Matches the Temperature Term?
Cooking/ Reheating 75°C
5°C-63°C is the perfect bacteria-breeding temperature.
37°C is the optimal temperature for bacteria to breed.
This is called the 'Danger Zone'.
Chilling 0°C - 5°C
Freezing food below -18°C stops the growth of bacteria.
Freezing extends the shelf life of food without losing nutrients.
Bacteria aren't killed when frozen, they are classed as dormant and become active when food is thawed.
The Danger Zone 5°C - 63°C
Keeping food between 0°C and 5°C slows down the growth of bacteria.
Chilling doesn't change the properties of food.
Chilling extends the shelf life of food.
Freezing -18°C
Cooking food above 75°C kills bacteria.
Reheat food to above 75°C.
It is important to reheat food properly and only once.
Look carefully – there are clues to help you!


Fridge vs Freezer
Ideal for chilling foods – especially high risk ones.
Bacteria remain dormant.
Don't let blood and juices of raw meat drip onto other food.
Greatly extends the shelf life of food products.
Food should have clear labels with the date on.
Food should be covered or stored in containers to prevent cross-contamination.
Temperature should be set at around -18°C.
Should be kept between 0°C and 5°C.
Food should be defrosted thoroughly before cooking.
Raw food should be stored on the bottom shelf.

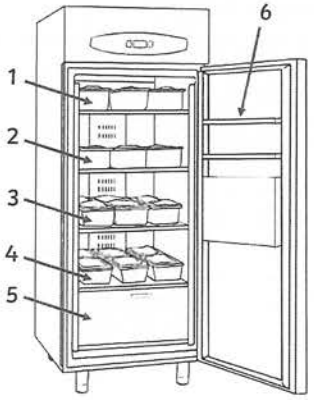
Fridge vs Freezer

Fridge	Freezer
Ideal for chilling foods – especially high risk ones.	Greatly extends the shelf life of food products.
Should be kept between 0°C and 5°C.	Temperature should be set at around -18°C.
Food should be covered or stored in containers to prevent cross-contamination.	Food should have clear labels with the date on.
Don't let blood and juices of raw meat drip onto other food.	Food should be defrosted thoroughly before cooking.
Raw food should be stored on the bottom shelf.	Bacteria remain dormant.

Where in the Fridge?

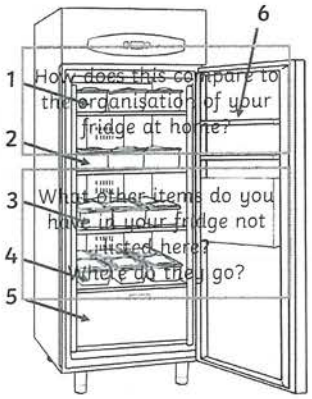
Which part of the fridge would the following items be stored?

cheese
raw chicken
milk
tomatoes
fruit juice
yoghurt
lettuce
apples
cooked meats
dips
sauces
ready meals



Where in the Fridge?

Which part of the fridge would the following items be stored?



1) Top shelf – moderately cold:

fruit juice, milk

2/3) Middle shelves – coolest and cooler:

dips, cooked meats, ready meals

4) Bottom shelf – moderately cold:

raw chicken

5) Bottom drawer – warmer:

salad and fruits

6) Door storage:

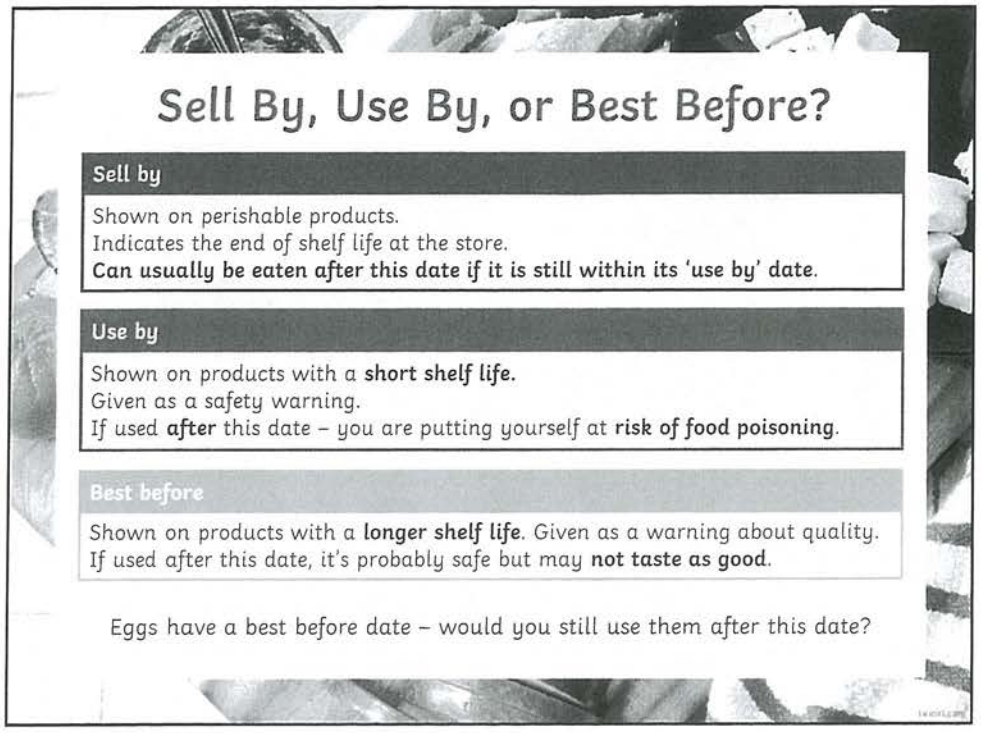
dairy at the top, sauces towards the bottom

Sell By, Use By, or Best Before?

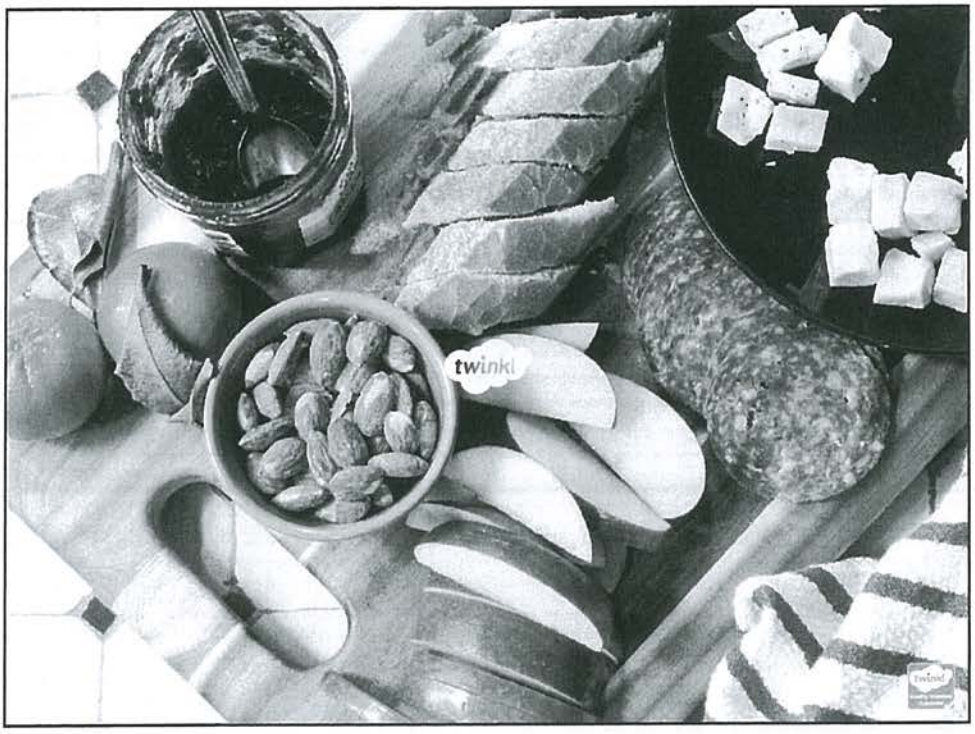
Shown on products with a **short shelf life.**
Given as a safety warning.
If used **after** this date – you are putting yourself at **risk of food poisoning.**

Shown on products with a **longer shelf life.** Given as a warning about quality.
If used after this date, it's probably safe but may **not taste as good.**

Shown on perishable products.
Indicates the end of shelf life at the store.
Can usually be eaten after this date if it is still within its 'use by' date.


Sell By, Use By, or Best Before?
Sell by
Shown on perishable products.
Indicates the end of shelf life at the store.
Can usually be eaten after this date if it is still within its 'use by' date.
Use by
Shown on products with a short shelf life.
Given as a safety warning.
If used after this date – you are putting yourself at risk of food poisoning.
Best before
Shown on products with a longer shelf life. Given as a warning about quality.
If used after this date, it's probably safe but may not taste as good.
Eggs have a best before date – would you still use them after this date?


Give Me 5...
5 rules to follow when storing food safely.
4 temperature ranges for storing food safely.
3 food products you would store in the drawer of the fridge.
2 dates you may find printed on a food product.
1 reason why it is important to store food safely.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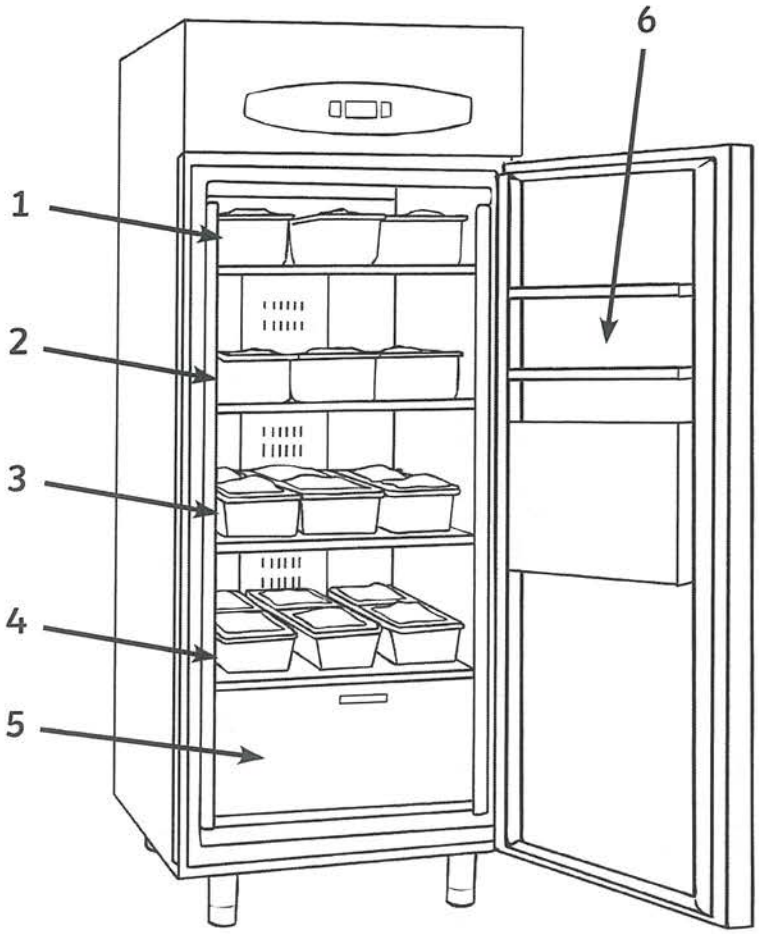
Where in the Fridge?

Where would be the best place to store the following foods in the fridge?



- cheese
- raw chicken
- milk
- tomatoes
- fruit juice
- yoghurt
- lettuce
- apples
- cooked meats
- dips
- sauces
- ready meals

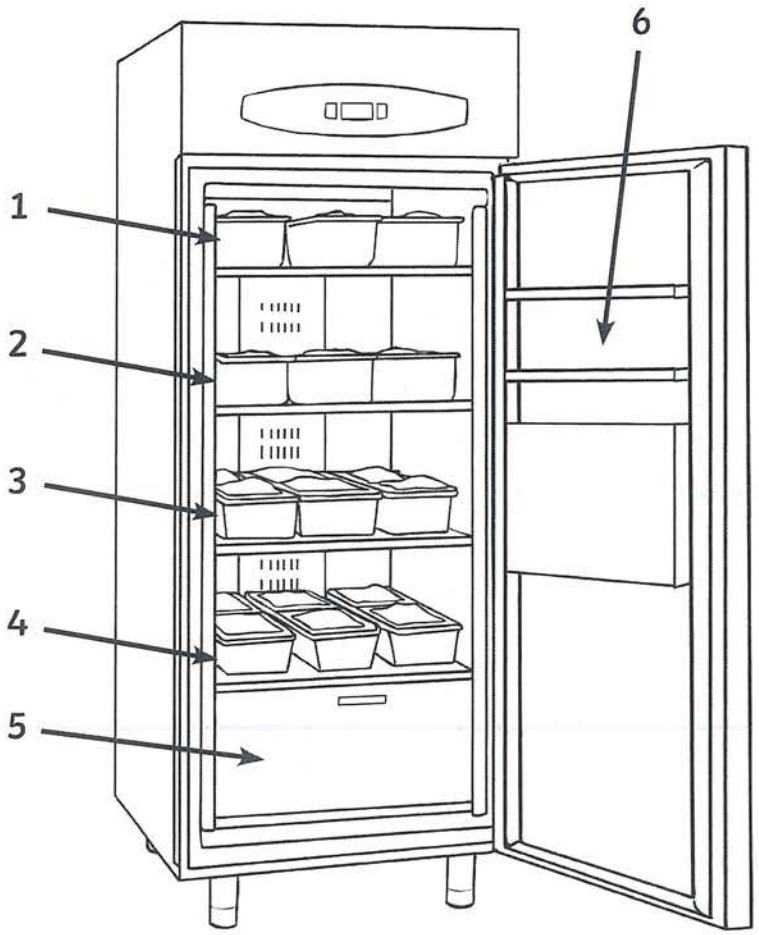
1	2	3	4	5	6

What else is in your fridge at home and where should it be stored?

How does this compare to your fridge storage system?

Where in the Fridge? Answers

Where would be the best place to store the following foods in the fridge?



- cheese
- raw chicken
- milk
- tomatoes
- fruit juice
- yoghurt
- lettuce
- apples
- cooked meats
- dips
- sauces
- ready meals

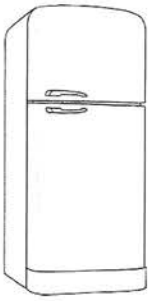
1	2	3	4	5	6
fruit juice milk	dips	cooked meats ready meals	raw chicken	tomatoes lettuce apples	butter cheese sauces

What else is in your fridge at home and where should it be stored?

How does this compare to your fridge storage system?

Give Me 5

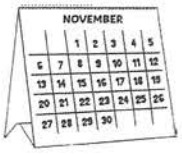
(5) rules to follow when storing food safely.



(4) temperature ranges for storing food safely.

(3) food products you would store in the drawer of the fridge.

(2) dates you may find printed on a food product.



(1) reason why it is important to store food safely.

Home Investigation

Have a look in your cupboard, fridge and freezer. List a range of foods. Remember to wash your hands before and after doing so and avoid touching food that can be easily contaminated.

Identify the use by or best before date and where it is safely stored.

The first one is done for you as an example.

Food Item	Best before/Use by	Temperature stored	Where it should be stored
Sultanas	*August 2018*	*In a cool dry place (15°C - 25°C).*	*Food cupboard/ pantry*

Planning a Healthy Menu

Sam and Sally are setting up a new healthy-eating café. Here are some of the menus they are planning. Help them to decide whether these menus cover all the food groups – use your Healthy Eating Pyramid to remind you. You could use coloured pens or highlighters to mark the different foods according to which group they belong to. Underneath each menu, tell Sam and Sally what they should add and what they should take away from their menus.

Monday

Breakfast

Beans on toast

Lunch

Ham sandwich on brown bread

Crisps

Yoghurt

Dinner

Roast chicken

Potatoes

Carrots and peas

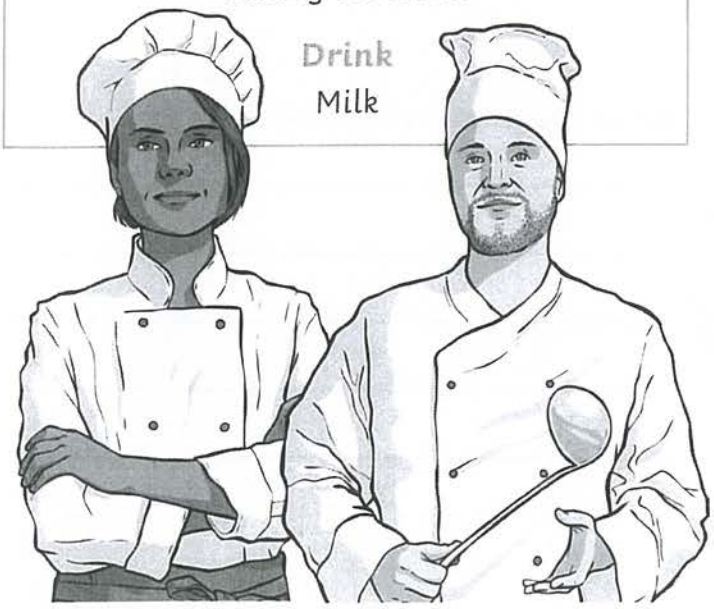
Ice cream and toffee sauce

Snack

Cherry tomatoes

Drink

Milk



What makes this a healthy menu?

What could Sam and Sally change on this menu?

What could they serve instead?

What makes this a healthy menu?

_____

_____

_____

_____

What could Sam and Sally change on this menu?

_____

_____

_____

_____

What could they serve instead?

_____

_____

_____

_____

Tuesday

Breakfast

Wheat shreds and milk

Lunch

Lentil and vegetable soup

White bread roll

Fruit salad

Dinner

Pasta with tomato sauce

Grated cheese

Salad

Apple crumble and custard

Snack

Chocolate muffin

Drink

Fresh orange juice

What makes this a healthy menu?

What could Sam and Sally change on this menu?

What could they serve instead?

What makes this a healthy menu?

What could Sam and Sally change on this menu?

What could they serve instead?

Wednesday

Breakfast

Scrambled eggs on a bagel

Lunch

Veggie bean casserole

Banana

Dinner

Chicken nuggets

Chips

Snack

Slice of wholemeal toast with spread

Drink

Cola

What makes this a healthy menu?

What could Sam and Sally change on this menu?

What could they serve instead?

What makes this a healthy menu?

What could Sam and Sally change on this menu?

What could they serve instead?

Thursday

Breakfast

Cheese on toast

Lunch

Roast beef and salad roll

Rice pudding

Dinner

Stir-fried chicken and vegetables

Brown rice

Snack

Bag of sweets

Drink

Sparkling water

What makes this a healthy menu?

What could Sam and Sally change on this menu?

What could they serve instead?

What makes this a healthy menu?

What could Sam and Sally change on this menu?

What could they serve instead?

Now design your own healthy menu to serve at home. Include some of your favourite meals and foods, and think of ways that you could make it healthier, for example by choosing whole wheat bread or pasta, including milk or adding in extra fruit or vegetables. Decorate your menu with bright colours and pictures.

_____'s Healthy Menu

Breakfast

Lunch

Dinner

Snack

Drink

Season's Eatings

Scrambled Season	Season Unscrambled	Months in This season (3)
PRSING		• • •
TREIWN		• • •
MATUUN		• • •
RMMUSE		• • •

Each fruit or vegetable has a prime time in which it's at its seasonal best.

This means extra flavour, extra crunch, extra juiciness, all super-fresh and great value.

More often, the fruit or vegetable is found in abundance during this time.

Explain the meaning of abundance in your own words:

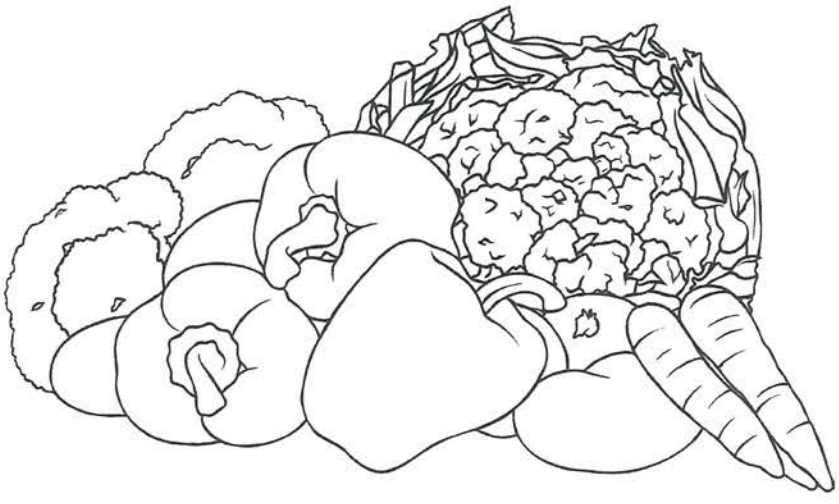
Explain when a fruit or vegetable is in season in your own words:

Complete the table.

Is it a fruit or a vegetable?

Which season do you think the fruit or vegetable belongs to?

	Fruit or Vegetable	Season
Apple		
Cabbage		
Carrot		
Cauliflower		
Leek		
Pear		
Potato		
Raspberry		
Strawberry		
Tomato		



Can you find the fruits and vegetables in the word search?

a	p	p	l	e	s	u	o	p	w	g	c
r	d	p	e	w	t	e	k	e	s	a	a
a	v	w	e	u	r	g	e	a	r	g	b
s	a	h	k	y	a	j	w	r	t	r	b
p	n	n	h	t	w	v	o	a	o	g	a
b	a	l	e	r	b	t	a	f	m	n	g
e	o	h	s	c	e	s	p	n	a	w	e
r	m	r	n	w	r	v	o	j	t	g	a
r	e	k	v	d	r	u	t	g	o	w	q
y	w	r	s	b	y	w	a	e	a	y	e
a	m	r	g	j	c	d	t	x	d	m	j
c	a	u	l	i	f	l	o	w	e	r	p

Apple	Cauliflower	Potato	Tomato
Cabbage	Leek	Raspberry	
Carrot	Pear	Strawberry	