

# Year 2 Maths Knowledge Organiser - Summer 1

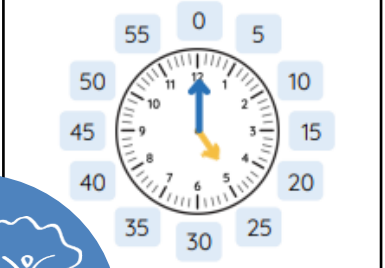


## Key Vocabulary

- +** add plus
- subtract minus
- =** equals
- ×** multiply
- ÷** divide
- <** more than
- >** less than

## Minutes in an hour

There are 60 minutes in an hour. We can count in 5s around the clock to see the minutes.



## Recognising Unit Fractions

**Half**

A whole split into two equal parts.

$\frac{1}{2}$

$\frac{1}{2}$  of 8 = 4

**Quarter**

A whole split into four equal parts.

$\frac{1}{4}$

$\frac{1}{4}$  of 12 = 3

**Third**

A whole split into three equal parts.

$\frac{1}{3}$

$\frac{1}{3}$  of 6 = 2

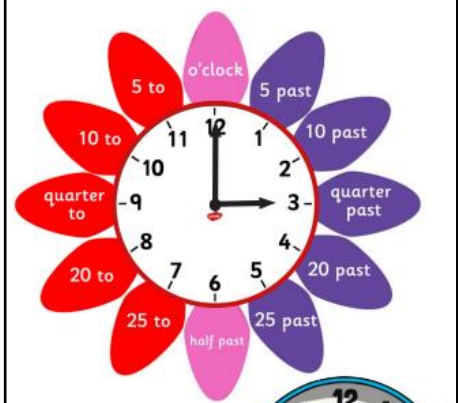
## Non-unit Fractions

**Non-unit Fractions**

$\frac{2}{3}$

$\frac{3}{4}$

## Telling the time to 5 minutes



## Half, quarter and thirds

$\frac{1}{2}$  of 12 is 6

$\frac{1}{4}$  of 12 is 3

$\frac{1}{3}$  of 12 is 4

A quarter is a half of a half.

## Numerator and Denominator

**numerator**  $\frac{3}{5}$  This is how many equal parts you have

**denominator**  $\frac{3}{5}$  This is how many equal part there are altogether (the whole)

## Hour Hand

The short hand points to the hour. If this hand is pointing between hours, it is the earlier hour of the two.

## Minute Hand

The long hand points to the minutes past or to the hour.

## Hours in a day

There are 24 hours in a day. There are two 8 o'clock's in each day!

8 o'clock in the morning

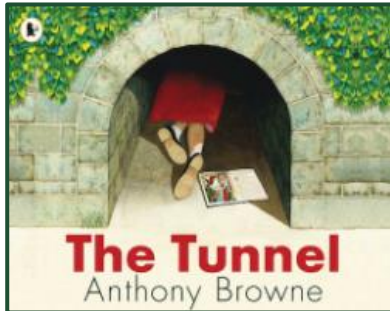
8 o'clock at night

## Time

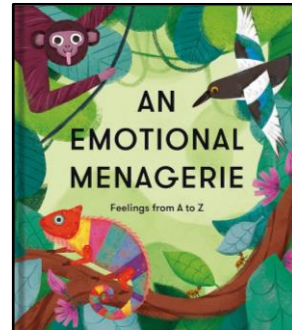
o'clock	half past
quarter past	quarter to



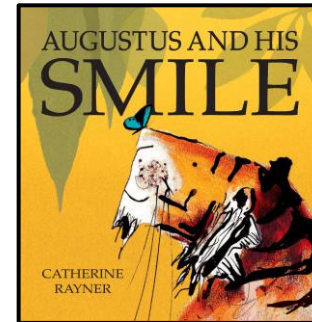
## Core Texts



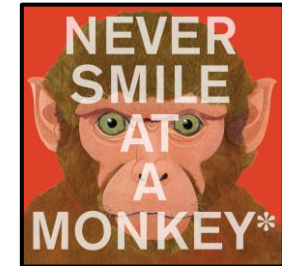
**The Tunnel**  
Anthony Browne



**An Emotional Menagerie**  
The School of Life



**August and His Smile**  
Catherine Rayner



**Never Smile at a Monkey:  
And 17 Other Important  
Things to Remember**  
Steve Jenkins

### Features of Text Type: Picture Books

- The narrative is written from a **third person** viewpoint using **past tense verbs**.
- **Repetition** of words and phrases is used throughout the text to emphasise key ideas.
- **Questions** are used both to show the characters' thoughts and feelings and to engage the reader in the narrative.
- **Expanded noun phrases** provide the reader with simple descriptive detail.

### Features of Text Type: Recounts

- Recounts are written to **retell** a series of real or imaginary events.
- **Past tense verb** forms indicate that the events have already taken place.
- **Descriptive detail** (for example, in the form of **expanded noun phrases** and carefully selected **verbs**) is used to interest the reader and paint clear pictures to help the reader to imagine the events being recounted.

### Features of Text Type: Informative Writing

- As with most **informative writing**, the text uses **present tense** verb forms to show that the information is current and continuous.
- **Expanded noun phrases** provide the reader with additional descriptive detail.
- **Topic vocabulary** is used to **inform**.
- The reader is **addressed** directly to engage them in the text, imagining what it would be like to come face to face with one of the creatures.





## Key Vocabulary



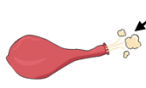
<b>compress</b>	to make something take up less space by squashing it
<b>freezing</b>	a process in which liquids change state to become solids
<b>gas</b>	one of the three states of matter
<b>global warming</b>	increasing average temperatures on Earth
<b>liquid</b>	one of the three states of matter
<b>matter</b>	what all 'stuff' is made from
<b>melting</b>	a process by which solids turn into liquids
<b>mixture</b>	a substance made of more than one substance
<b>solid</b>	one of the three states of matter
<b>states of matter</b>	the different ways in which a substance can exist in the world (as solids, liquids and gases)

## The Big Picture

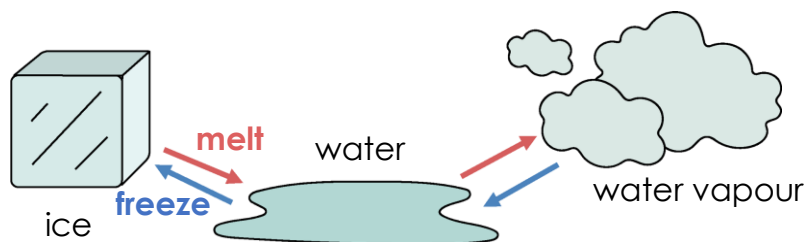
**Matter** is what everything is made of.

Matter exists in one of three states: **solids**, **liquids** and **gases**.

## Properties of Solids, Liquids and Gases

	 solids	 liquids	 gases
They have a fixed shape (unless pushed or pulled).	✓	✗	✗
They take the shape of the container they are in.	✗	✓	✓
They can flow.	✗	✓	✓
They can be compressed.	✗	✗	✓

## Changing States



Substances can change from one state to another.

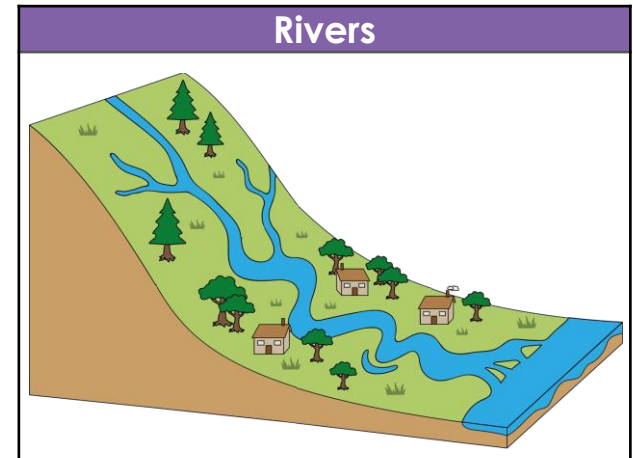
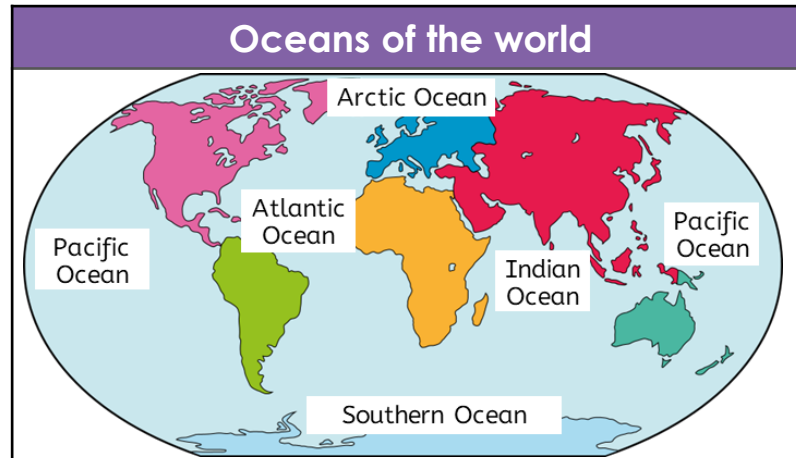
Water can change from a liquid to a solid. Water in a solid state is called ice.

Water can also turn into a gas. Water, when a gas, is called water vapour.





Key Vocabulary	
<b>coast</b>	a place where land meets the sea or ocean
<b>mouth</b>	the place in a lowland area where a river enters a lake, larger river, or the ocean
<b>ocean</b>	An ocean is a large area of salt water between continents.
<b>overfishing</b>	Taking more fish than the sea or ocean can sustain.
<b>river</b>	a large natural stream of water flowing in a channel to the sea, a lake, or another river
<b>seas</b>	seas are smaller than oceans and are usually located where the land and ocean meet.
<b>source</b>	the place in a highland area where a river begins.



The river begins in a **highland area** at a place called the **source**. There are lots of mountains, valleys and forests near the source of the river.

The river flows downhill.

The river meets the sea (or ocean or other river) at the **mouth**. This is in a **lowland** area, where the land is usually flat.

Humans have always used rivers, seas and oceans for work (economic activities) and play (leisure activities).

