



Subject: Y3 Maths
Topic: Mass and Capacity



Key Vocabulary

- mass
- gram
- kilogram
- capacity
- volume
- millilitre
- litre
- lighter
- heavier

Unit overview

In this unit, children will learn how to read a range of scales to measure mass and capacity, including scales with missing intervals. They will measure the mass and capacity of objects and record them as a mixed measurement in kilograms and grams or litres and millilitres. The children add and subtract mass and capacity, using a range of mental and written methods, choosing the most efficient one for each question.

Key Facts – Sticky Knowledge

Measure and Compare Mass

Scales can be used to measure grams.
A gram is a unit of measurement that is used to measure the mass of something.
Grams can be written as g.



Scales can be used to measure kilograms.
A kilogram is a unit of measurement that is greater than a gram. It is also used to measure the mass of something.
Kilograms can be written as kg.



1000g = 1kg

To compare mass, we can use the words 'heavier' and 'lighter'.

Reading Scales

Always look carefully at the numbers on scales or measuring jugs, as they always go up in different increments.



Measure and Compare Capacity

Capacity is the amount of liquid a container can hold.
Volume is how much liquid is in the container.

Measuring cylinders can be used to measure smaller volumes.
Smaller volumes are measured in millilitres.
Millilitres can be written as mL.



Measuring jugs can be used to measure larger volumes.
Greater volumes are measured in litres.
Litres can be written as l.



1000ml = 1l

To compare capacities, we can use the word 'full'.

Key Facts

1000g = 1Kg



1000 ml = 1 L



Add and Subtract

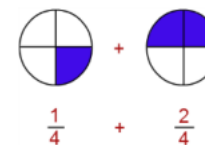
600 g + 500g = 1100g or 1kg 100g

1l - 300 ml = 1000 ml – 300 ml = 700 ml



Subject: Y3 Maths

Topic: Fractions



Key Vocabulary

- numerator
- denominator
- unit fraction
- non-unit fraction
- equivalent
- tenths
- decimal tenths

Unit overview

In this unit, children will look at whole shapes and quantities and see that when a fraction is equivalent to a whole, the numerator and denominator are the same. They are introduced to tenths as decimals for the first time. The children will compare fractions and decimals written as words, in fraction form and as decimals and link them to pictorial representations. They will find a unit fraction of an amount by dividing an amount into equal groups.

Fractions of Amounts

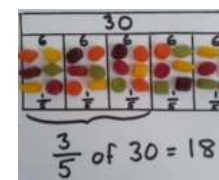
$$\frac{1}{4} \text{ of } 24 = 6$$



$$\frac{1}{3} \text{ of } 72 = 24$$



$$\frac{2}{5} \text{ of } 40 = 16$$



Key Facts/dates – Sticky Knowledge

Recognising fractions

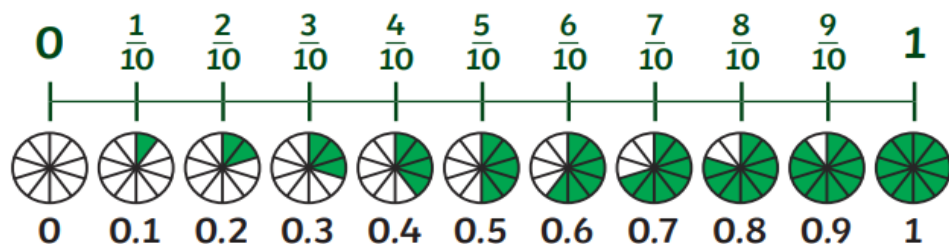


$$\frac{3}{8}$$

Numerator
How many equal parts of the whole are needed?

Denominator
How many equal parts are in the whole?

Tenths and decimals



Add and subtract Fractions

$$\frac{3}{7} + \frac{2}{7} = \frac{5}{7}$$



$$\frac{5}{6} - \frac{2}{6} = \frac{3}{6}$$



Learning Outcomes

Count up and down in tenths. Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators. Recognise that tenths arise from dividing an object into 10 equal parts and in dividing one – digit numbers or quantities by 10. Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators. Compare and order unit fractions, and fractions with the same denominators. Recognise and show, using diagrams, equivalent fractions with small denominators. Add and subtract fractions with the same denominator within one whole. E.g one seventh + 3 sevenths = 4 sevenths. Solve problems that involve all of the above



Subject: Y3 Maths
Topic: Length and Perimeter

Key Vocabulary

Measure,
compare,
lengths (m/cm/mm)
height
length
width
perimeter

Unit overview

In Year 2, children used either metres or centimetres to measure the length of objects. In this unit, Year 3 children will revise these skills, initially using a ruler to measure objects in centimetres. They then combine both units of measurement, such as 1 m and 20 cm, for example by measuring the lengths of desks or the heights of children in the class. Children learn that perimeter is the distance around the outside of a closed 2-D shape and explore what perimeter is, and what it is not, by deciding whether they can find the perimeter of a group of open and closed 2-D shapes.

Key Questions

Where should you start measuring from on your ruler? • What is the length of in centimetres? • What is the length of in metres? • What is the length of in metres and centimetres? • Would you measure the length of the classroom in centimetres or metres? Why? • What equipment would you use to measure the length of ?

Key Facts/dates – Sticky Knowledge

Measure length

It important to start measuring from zero on your ruler!

Equivalent Length

100 centimetres = 1 metre
10 millimetres = 1 centimetre

Millimetres (mm) $\xrightarrow{+10}$ Centimetres (cm) $\xrightarrow{+100}$ Metres (m)
 Metres (m) $\xrightarrow{\times 100}$ Centimetres (cm) $\xrightarrow{\times 10}$ Millimetres (mm)

317cm
300cm 17cm
3m 17cm
3m 17cm

Perimeter

Perimeter is the distance around the outside of a closed 2-D shape.

- Small steps to Success**
- Step 1: Measure in metres and centimetres
 - Step 2: Measure in millimetres
 - Step 3: Measure in centimetres and millimetres
 - Step 4: Metres, centimetres and millimetres
 - Step 5: Equivalent lengths (metres and centimetres)
 - Step 6: Equivalent lengths (centimetres and millimetres)
 - Step 7: Compare lengths
 - Step 8: Add lengths
 - Step 9: Subtract lengths
 - Step 10: What is perimeter?
 - Step 11: Measure perimeter
 - Step 12: Calculate perimeter

Year 3: Ballads

Musical style: Ballads

Ballads are songs which tell a story. They can be in many styles, such as pop and musical theatre and were used in ancient times to carry news and legends across countries.



Vocabulary

Ballad A song which tells a story - similar to a poem.

Compose To create an original piece of music.

Stanza A short section of text, sometimes known as a verse in a song or poem.

Solo Performing alone.

Ensemble A small group of musicians who perform together.

Expression Making your thoughts or feelings known when reading, singing or performing.

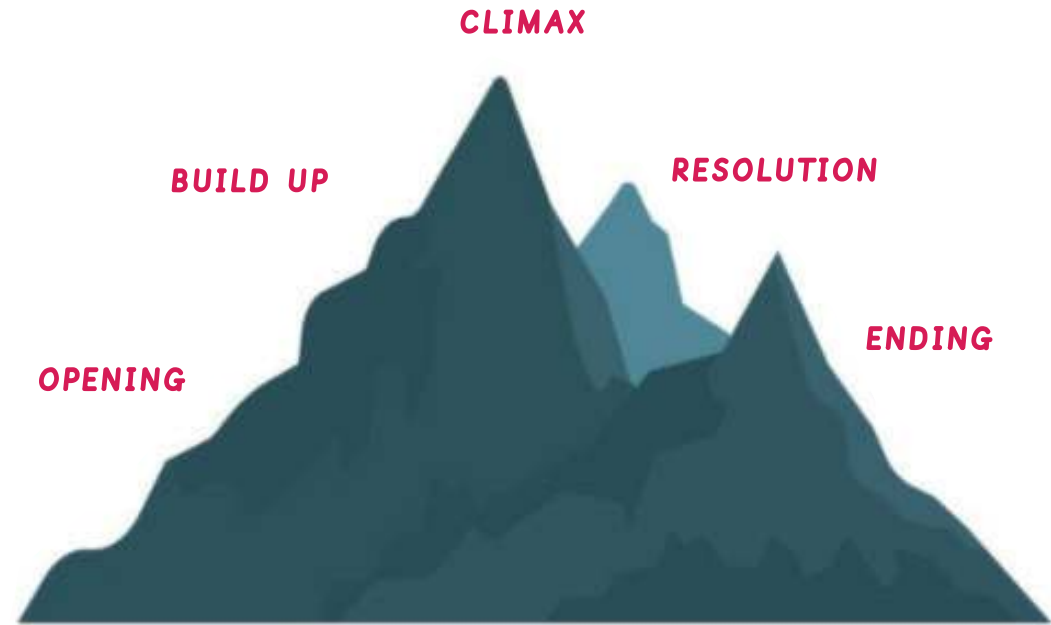
Lyrics The words in a song.

Chorus Repeated section of music with the same tune and lyrics.

Nonsense words Words which have no meaning and are often used for filling time in songs - e.g. 'la', 'do', 'ooh'.

Story mountain

Ballads tell a story and usually have a similar structure to stories.



OPENING - Describes the setting, introduces the characters.

BUILD UP - Excitement and tension grows, gives emotion.

CLIMAX - Major dilemma.

RESOLUTION - Characters find a route through their difficulties.

ENDING - Happily ever after.



Learning Outcomes

Know some of the miracles of Jesus which recall his words and actions.

Understand that through his miracles, Jesus was able to show people the love and forgiveness of God and bring about change in their lives.

Know that Lent is a special season when Christians pray for forgiveness and try to change to become more like Jesus.

Understand the meaning associated with receiving the ashes on Ash Wednesday.

Be able to explore some of the traditional customs and practices of the Season of Lent.

Year 3 Unit F:

Lent.

Unit overview

The unit is designed to help us appreciate that during Lent Christians resolve to change and try to become more like Christ. We will be introduced to new Gospel stories about Jesus bringing change into the lives of people he encountered.

The unit builds on prior learning from Year 2 when we considered Lent as a special time to seek God's forgiveness and offer it to others.

Bible References:

Mk. 2: 1-12 – The Cure of the Paralytic

Lk. 7: 11-17 – The Widow of Nain



Key Vocabulary

Lent,
change,
miracle,
Widow of Nain,
paralysed man,
Ash Wednesday,
sorrow,
forgiveness.

Windows of reflection (things to think about)

In the miracle of the Widow of Nain's son, why do you think Jesus brought the man back to life?

How did Jesus change the life of this family?

What do the words of the Act of Contrition tell us about trying to change and become more like Jesus?

Prayer tasks linked to unit and learning beyond the classroom:

Imagine that you were one of the people standing in the crowd and saw the miracle of the widow of Nain's son take place. Imagine they had a chance to speak to Jesus about what happened. What questions might you have asked him and what answers do you think you would have got back?

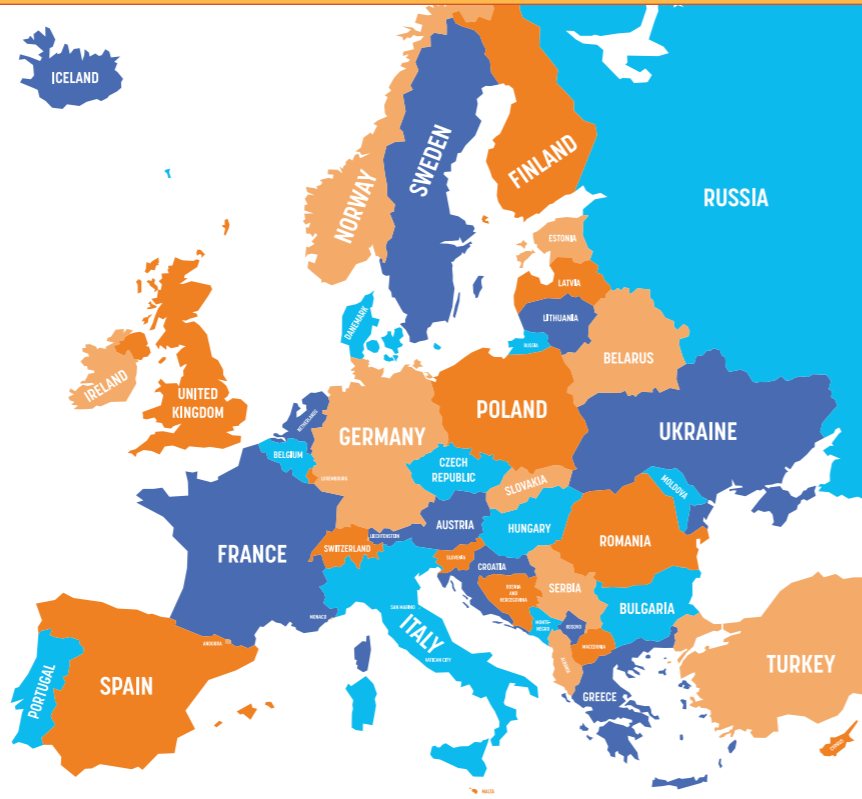
Write a character portrait of Jesus, describing his qualities and attributes.

Find out about some Lenten customs and religious practices that people engage in around the world and create a PowerPoint to share with the class.

Explore some of the work of the Fr. Hudson's Society and CAFOD. What sort of change are they trying to bring about? How can we help during the Season of Lent? Create an action plan.

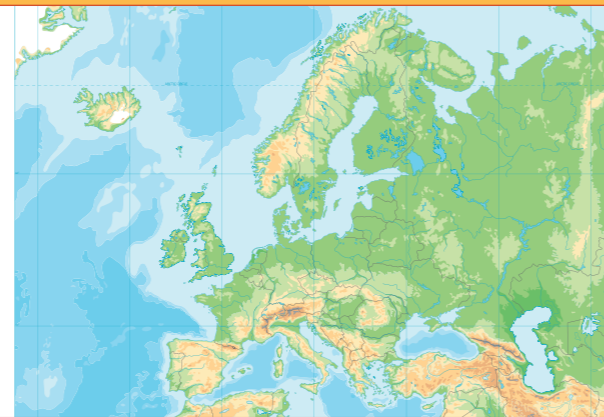
Countries of Europe

There are over 40 different countries in Europe. Some are large and some are very small but they are all different. The countries can be divided into different regions: Northern Europe, Southern Europe, Western Europe and Eastern Europe. Europe is the second smallest continent by size but the third smallest continent by population.



Physical Features of Europe

As well as different countries and cities, there are many different physical features found across Europe. There are mountains, rivers, lakes, volcanoes, fjords and surrounding oceans and seas. Europe is bordered by the Atlantic Ocean to the west, the Arctic Ocean to the north, the Mediterranean Sea to the south and by the continent of Asia to the east.



Significant Places

The River Volga	The Alps	Moscow, Russia	Paris, France
The Volga is the longest river in Europe.	The Alps are one of the largest mountain ranges in Europe.	Moscow is the capital city of Russia. Russia is in Eastern Europe and in Asia.	Paris is the capital city of France. France is in Western Europe.

Glossary

1	Europe	one of the seven world continents.
2	continent	a large section of land.
3	country	a nation that has its own government.
4	transcontinental	a country that is in more than one continent.
5	physical feature	a feature that occurs naturally.
6	human feature	a feature that is linked to humans.
7	border	a line which separates two countries.
8	peninsula	a piece of land almost completely surrounded by water.
9	mainland	the piece of land that contains most of a country.
10	island	a small piece of land surrounded by water.
11	coastline	where the land meets the sea or ocean.
12	government	the group of people who are responsible for a country.
13	capital city	a city in a country where the government is located.
14	region	an area of land within a country or across countries.
15	population	the number of people living in a place.
16	religion	what people believe.
17	currency	the money used in a certain place.
18	climate	the typical weather patterns in a place.
19	monarchy	a royal family.
20	traditional	something which people have done for a long time.



Close up on Italy



- Italy is in Southern Europe
- Italy is a Mediterranean country
- Italy is located on a peninsula
- Lots of islands are also part of Italy
- The two larger islands are Sardinia and Sicily
- The capital of Italy is Rome
- Italy is separated into 20 different regions



Significant Places

Madrid, Spain	Rome, Italy	The Colosseum	Saint Peter's Square
Madrid is the capital city of Spain. Spain is in Southern Europe.	Rome is the capital city of Italy. Italy is a Mediterranean country.	The Colosseum is a huge amphitheatre found in the centre of the city of Rome.	Saint Peter's Square is a famous landmark located in the Vatican City. The Vatican City is the smallest country in the world and is located inside Rome.

Year 3 - Electric poster

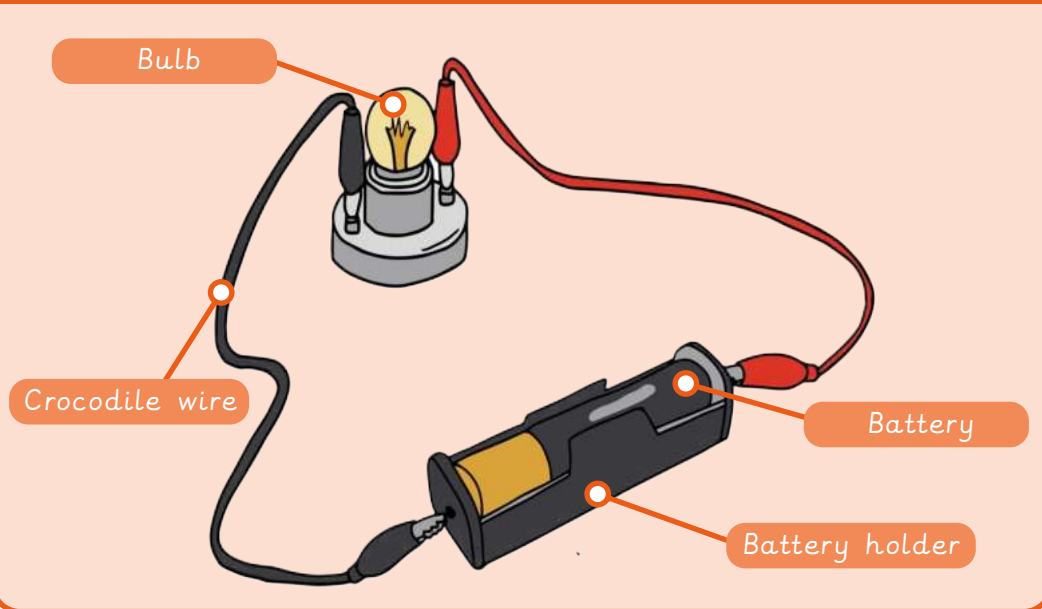
Battery	A cell or connected group of cells which store electrical energy.
Bulb	A component which gives light when electricity passes through it.
Circuit	A collection of components which make an electrical system.
Circuit component	One of several parts of that complete a circuit (e.g. bulb).
Information design	Facts that are displayed in a visually appealing way and are easy to understand.
Initial ideas	A series of sketches to solve a problem or design a product.
Information	Facts that we learn or research about something.
Public	People in our community.
Research	Using different media (e.g. newspapers, books, online searches) to collect information about a subject.
Wire	A thin piece of copper thread which conducts electricity to connect circuit components together.

Key facts

Information design is one area (field) of design. It covers all items and products that are developed to give the public further information.



An electrical system is a group of parts (components) that work to transport electricity around a circuit.



An electrical product is an object that uses an electrical system to make its different parts work.



Abstract	Art where the subject doesn't necessarily look like it does in real life.
Botanical art	To depict whole plants or parts of plants that is visually pleasing and scientifically accurate.
Composition	Putting different elements together in a pleasing way.
Geometric	A regular shape with angles and straight lines.
Organic	Irregular natural shapes.
Scale	The size of what is being drawn.
Shading	Drawn marks to show areas of light and dark.
Texture	A surface quality that is not flat.
Tone	The light and dark something is.

Artists

Georgia O'Keeffe

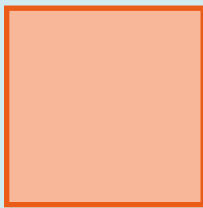
Charles Darwin

Maud Purdy

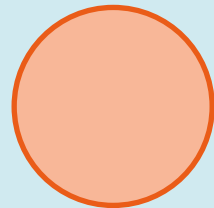
Max Ernst

Carl Linneaus

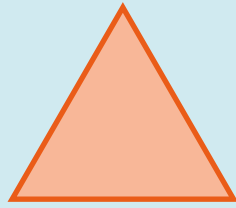
Everything in our world is made from simple shapes. Identifying shapes within objects will help you to draw more accurately.




Squares and rectangles




Circles and ovals




Triangles



Straight lines



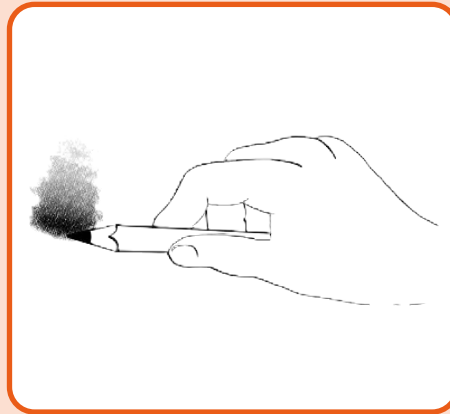
Wavy lines



Holding a pencil to shade



Detail grip
(Writing grip)



Shading grip

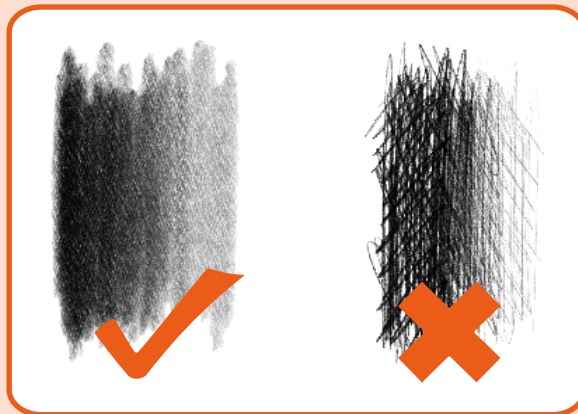
The four rules of shading

To shade in **ONE** direction

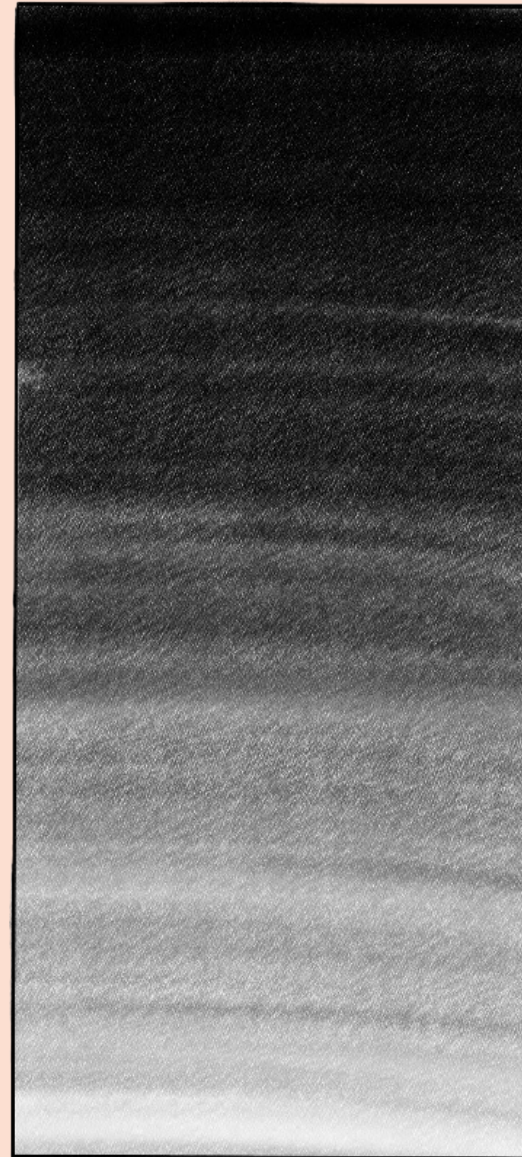
To not leave any gaps

To work neatly to the edges

To create smooth even tones



Creating tones:



Dark tones show where there is less light on an object. Pressing firmly with your pencil when you shade will create darker tones.

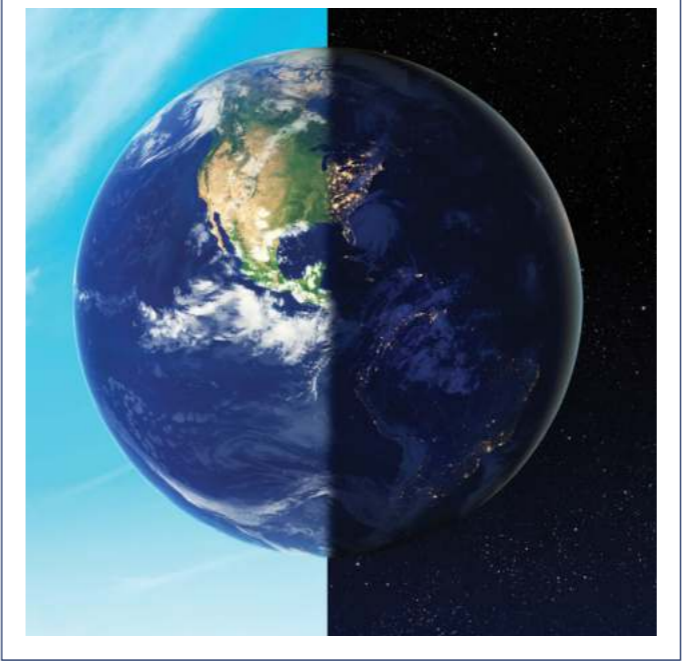
Light tones show where there is more light on the subject and less pressure is needed when you shade.



Glossary		
1	light source	an object that emits light
2	emit	gives out
3	reflect	when a light hits a surface and bounces off
4	rotate	turn around on its axis
5	Ultraviolet (UV) light	a form of radiation which is not visible to the human eye
6	SPF	the sun protection factor in sun cream
7	pupil	small dark opening in the centre of the eye
8	reflective	capable of reflecting light
9	non-reflective	not capable of reflecting light
10	transparent	an object or substance which allows all light to pass through it
11	translucent	an object or substance which allows some light to pass through it
12	opaque	an object or substance which prevents light from passing through it
13	plane	flat mirror that results in an almost identical image being reflected
14	concave	a mirror that curves inwards making objects appear larger
15	convex	a mirror that curves outwards, showing a wider image
16	mirror	a surface that reflects a clear image
17	periscope	an instrument to see things that are not in the direct line of sight
18	sundial	a device used outside to tell the time of day
19	shadow	a dark shape appearing on a surface when an object blocks a surface and a light source
20	darkness	a lack of light

Night and Day

The Earth **rotates** (or spins) on an imaginary line called its **axis** which causes some parts of the planet to face towards the Sun and some parts to face away from it.



Shadows

A brighter light source forms a clearer, more defined shadow. The closer an object is to a light source, the wider the shadow becomes.



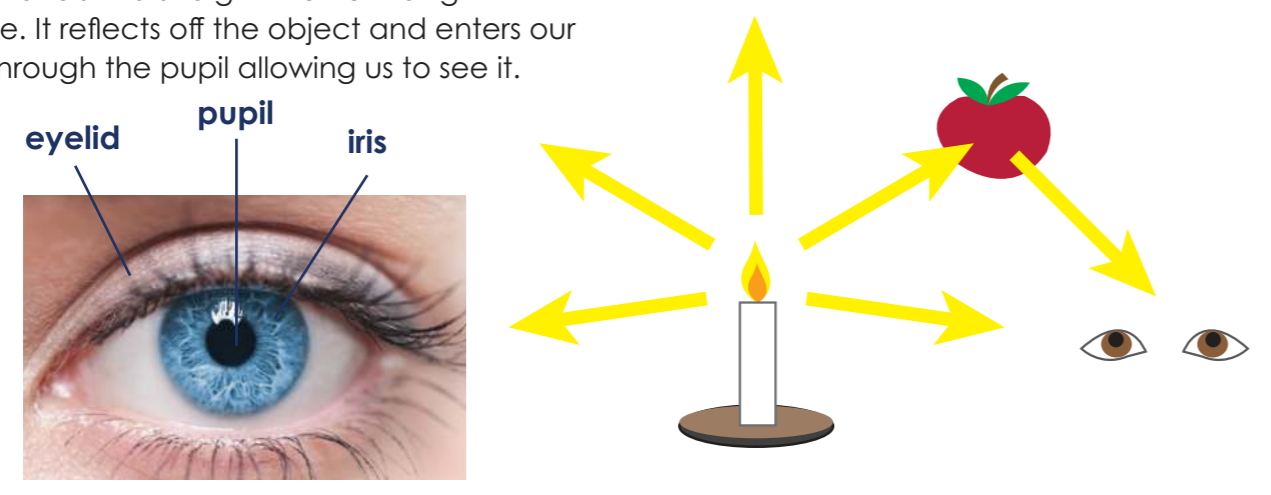
Mirrors

Convex mirrors curve outward, like a dome.
Concave mirrors curve inward, like a bowl.
Plane mirrors are flat and reflect an almost exact image.



How we see

Light travels in a straight line from a light source. It reflects off the object and enters our eye through the pupil allowing us to see it.



The Sun

Human skin produces vitamin D when exposed to sunlight. This vitamin is important to keep bones healthy.

UV rays are dangerous and can cause sunburn, wrinkles and skin cancer.

