Term 1

St Laurence School
Year 7 Knowledge Organiser

Name & Tutor Group: _____

Learning Group: _____

SLS Knowledge organisers

How to use them?

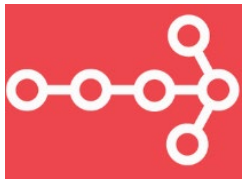
Students remember more if they…

GREAT REVISION IS …		
	Pair it	Have you created a set of questions and answers that someone else can test you on? Paired retrieval questions can extend learning.
	Look, Cover, Write, Check it	Have you read the notes, covered them up, and written down everything you can remember? Add the information not recalled in red pen.
	Mind map it	Have you sorted the important information into chunks? Add colours, images, and make connections between the information.
	Judge it	Have you completed a *but* sentence showing why someone might not agree with an idea? Or can you give a non-example?

SLS Knowledge organisers

How to use them?

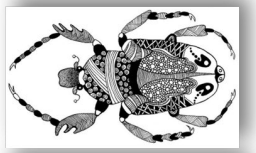
Students remember more if they…

GREAT REVISION IS …		
	Draw it	Have you turned the information into a picture, image, or diagram? Dual coding is a powerful way to get information to stick.
	Flash card it	Have you shrunk the information down to the most essential parts? Have a key word on one side and the definition on the back of the card. You can sort cards, rank cards or get someone to quiz you.
	Map it	Have you created a diagram or hierarchy to help you link the concepts and judge the most important to least important.
	Test it	Have you completed a self-quiz, where you have key words or questions and have to respond to the answer or give the definition.

Year 7 Art

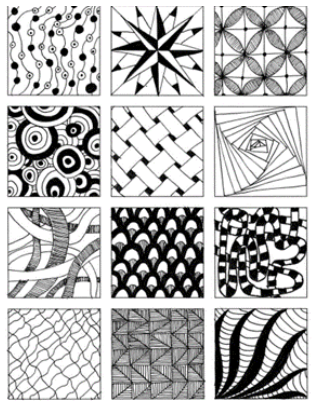
Insects

Brief overview of project
In this project, you will explore the theme of insects. You will work in an A4 sketchbook. At first, you will begin with an assessed tonal drawing. Learn how to draw using proportion, practise and learn Zentangle pattern making, and explore further mark making, using various pencils, fine liner and paint. Next you will have a brief introduction to colour theory.
You will use the work of other artists to inspire your own painting composition, applying your knowledge of colour theory.
You will go on to produce a collaborative piece of work either with clay; inspired by Japanese Netsuke, or with paint or mixed media.



This year we will study:
- Drawing – how to use tone effectively
- Zen doodle patterns, to create effective designs
- How to mix and apply watercolour
- Different cultures such as Japanese Netsuke, West African Adinkra and Mexican Day of Dead
- How to use a sketchbook to present your work

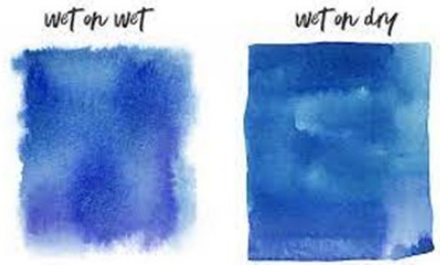
Zendoodle Drawings



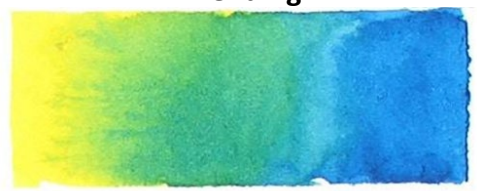
Artist: Christopher Marley

Japanese Netsuke

Watercolour Painting Techniques



Blending



Experimentation

Oil Pastels

Year 7 Dance

Discovering

Dance Health and Safety

Removing all jewellery
Wearing no shoes or socks
Having the correct dance kit
Tying your hair up
Removing chewing gum
Participating in the warmup & lesson
Staying hydrated
Not chasing each other around the space
Respecting each other

Action What the dancer does Travel, turn, jump, gesture .	**Space** The 'where' of movement Directions, levels, pathways, shape , size.
Dynamics The speed, force and flow used to perform the movement Fast, slow, heavy.	**Relationships** The way in which the dancers interact; the connections between dancers.

Key dance words for term 1

Physical skills
Stimulus
Motif
Choreography
Action
Space
Dynamics
Relationships

Physical skills definitions to match up

Keeping the back straight
Extending the limbs
Moving multiple body parts
Moving from one action to the other
Muscular power
Standing on one leg
The available range of movement at the joint

Physical skills

Posture
Extension
Coordination
Mobility
Strength
Balance
Flexibility

Year 7 Design Technology

Food (Healthy Eating)

Key Practical Skills

Chopping and knife skills - fruit salad and pasta salad

Rubbing in method - scones and fruit crumble

Creaming method - fruit muffins and pineapple upside down cake

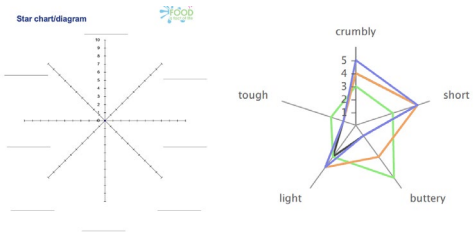
Melting method - flapjack

A combination of <u>some</u> of the above skills along with rolling and shaping – **Funny face pizzas**

Keywords

- Bacteria
- Bridge
- Cooker
- Claw
- Equipment
- Evaluate
- Healthy
- Hygiene
- Measure
- Safety
- Sensory analysis
- Time management
- Weigh

Sensory Analysis



Sensory analysis tasks are used to examine the properties e.g texture, taste, appearance and odour.

We use this to compare shop bought products but also evaluate your home-made products.

Knife Skills

Bridge hold

Claw hold

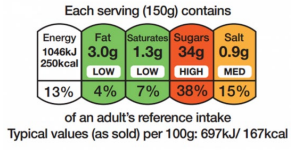
Peeling

Health and Safety Rules in the Kitchen

- Tie long hair up
- Wash your hands with warm soapy water
- Wear a clean apron
- Listen to instructions
- No running or shouting in the kitchen
- Leave bags and coats outside on the rack
- Remove nail varnish/ acrylic nails
- Do not sneeze or cough over food
- Wash up and tidy away the equipment that you use

Healthy Eating

The Eatwell Guide shows how much of what we eat overall should come from each food group to achieve a healthy, balanced diet.



The traffic light labelling system will tell you whether a food has high, medium or low amounts of fat, saturated fat, sugars and salt. It will also tell you the number of calories and kilojoules in that particular product.

Year 7 Design Technology: Resistant Materials

Key Practical Skills

Measuring and marking material – All project require accurate use of rules and try squares

Cutting with a tenon saw – Learn the correct technique for safety and efficiency with a hand saw

Use of basic machinery – Belt sanders and pillar drills are used on several projects

Communicating designs – Designing of block bot project looks at how to design to a brief and effectively communicate your idea

Key theory topics

Timber

Hardwoods – Trees lose their leaves over winter, take a long time to grow and are expensive.

Softwoods – Trees are evergreen and keep their leaves, grow quicker and more affordable

Polymers (plastic)

Thermosetting – Plastics that can be heated and shaped once. After they will go hard and will burn if heated.

Thermoforming – Can be heated and reshaped multiple times

Metals

Ferrous – Ferrous metals contain iron. They are magnetic and can rust.

Non-ferrous – Any metal that does not contain iron. Not magnetic and will not rust.

Alloy – A combination of a metal and another element.

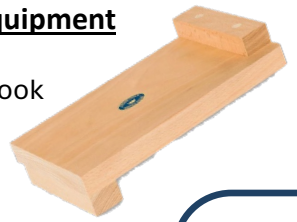
Health and Safety rules

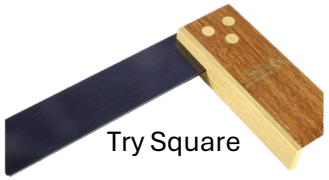
- Tie up long hair
- Wear an apron
- Listen to instructions
- Wear goggles when using machines
- Only two people on a workbench
- Be aware of your surroundings
- No running
- No eating or drinking
- Use tools and machines only as instructed
- The workshop is tidy and clean after every lesson

Tools and Equipment

Tenon Saw

Bench Hook





Try Square

Belt Sander

Key words

- Hardwoods
- Softwoods
- Manufactured boards
- Polymers
- Ferrous & non-ferrous metals
- Design brief

Year 7 Design Technology: Textiles (Tie Dye Cushion Cover)

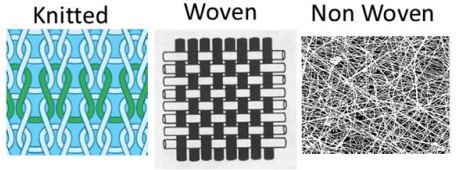
Terminology

Design Specification - a list of design criteria that the finished product must meet.
Client - also known as the user; the person or group of people who will buy and/or use the design solution.
Client profile - a summary of the client's likes, dislikes and interests.
Analysis - looking at a product in more detail to understand more about it.
Annotation – Labels on designs commenting on fabrics, colour, technique and who your user is.

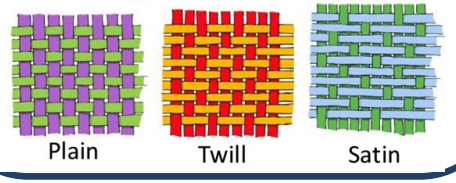
Keywords

- Tie Dye
- Embroidery
- Appliqué
- Design
- Pattern
- Iron
- Thread
- Sewing machine
- Stitching (zig-zag, straight, decorative)
- Cotton
- Polycotton
- Polyester
- Linen
- Wool
- Nylon

Fabric Construction



Types of Weaves



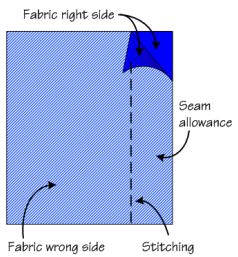
Equipment

Thread - a long strand of fibres (cotton, polyester, nylon) used for joining, creating or decorating textiles.

Bondaweb - A double-sided adhesive to bond fabrics together simply by ironing. Used for securing applique in place and to prevent the edges from fraying.

Practical skills

Seam allowance - is the area between the fabric edge and the stitch line on two pieces of material sewn together. A seam allowance is 1.5cm from the fabric edge.

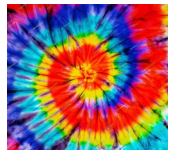


Hem – An edge is turned over twice to create a neat finish, ironed and sewn in place so there is no raw edge to your cushion cover.

Decorative Techniques

Appliqué – A French word meaning 'to apply'. Decorative technique made by sewing fabric shapes onto another surface.

Tie Dye - A hand method of producing patterns in textiles by tying portions of the fabric with string so that it will not absorb the dye and leave colourful patterns in the fabric.



Hand Embroidery - Stitching on fabric with a hand needle and embroidery thread to add colour and texture to the surface.

Decorative Stitches - A series of detailed stitches sewn by machine in a continuous line to decorate hems.

Year 7 Drama

Creating Tension

'Drama is Serious Fun'

Rules of the Drama Studio

Respect Yourself
Respect Others
Respect the Space

Be Kind
Be Brave
Be Yourself

Be in the right place, at the right time,
doing the right thing,

Physical Skills

Mum **PEGS** out **G**ran's
Flowery **B**loomers

Mannerisms
Posture
Eye Contact/Focus
Gesture
Use of **S**pace
Gait
Facial Expressions
Body Language

Vocal Skills

PIP **E**ats **M**angos **A**t
Very **P**eculiar **T**imes

Pitch
Intonation
Pause
Emphasis
Mannerism
Accent
Volume
Pace
Tone

Tableau Plural: Tableaux
A still image or freeze frame

A good tableau needs to be
SILENT AND STILL

Remember to use
facial expressions, gesture, levels,
body language and focus

Soft Skills:

We use the term 'soft skills' to refer to personal attributes that will be useful to you whatever you go on and do in your life. They are also known as 'transferable skills.'
Some 'soft skills' are:
Confidence, Communication (verbal and non-verbal - including listening, negotiating, presentation, persuasion, body language), Creativity, Cooperation and Concentration.

Not all 'soft skills' start with a 'C'! There is also:

Resilience, Perseverance, Assertiveness , Independence, Leadership, Imagination, Empathy, Teamwork/Collaboration, Facilitation (helping others to achieve). And many more……!

Subject ENGLISH

Topic Difficult Choices: When the Sky Falls

CONTEXT

World War Two - happened between 1939-1945 between Germany and its allies and Britain, America and their allies. It involved more than 50 nations. Much of the fighting was in mainland Europe, but bombs were dropped by both sides on key cities.

The Blitz – This term refers to the bombing of important cities and ports during World War Two. It is most often used in reference to London, which was a key target.

Evacuees – Children were evacuated from big cities to the countryside. An estimated 3.5 million children left their homes. Joseph's situation of moving into London was very unusual.

Dyslexia – Dyslexia is a learning difficulty that mainly affects your ability to read and spell.

MAIN CHARACTERS

Joseph – a young boy sent to London during the Blitz

Mrs F – the woman Joseph is sent to stay with and custodian of the zoo

Syd – a girl who helps at the zoo and becomes Joseph's friend

Adonis – the gorilla resident at the zoo

Mr Gryce – the head teacher of Syd and Joseph's school

Miss Doherty – Joseph's teacher

Bert and Jimmy – two boys from Joseph's school who bully him.

SUBJECT VOCABULARY

Novel
Protagonist
Character
Setting
Dialogue
Narrative
Quotation
Juxtaposition
Empathy
Anthropomorphism

USEFUL VOCABULARY

Evacuee
Rationing
Silverback
Abrasive
Conscription
Compassion
Responsibility
Bereavement
Determination

ACADEMIC VOCABULARY

P.E.E. – Point, Evidence, Explanation

perhaps, arguably, possibly
could, may, might

shows, conveys, illustrates, emphasises, highlights, suggests, implies

The word "-----" suggests that…
The audience may feel that…

BIG IDEAS, THEMES AND QUESTIONS

Conflict– How does the conflict of the war reflect the conflicts between the characters? Why did the writer choose to set the novel at this time?

Love– What does it mean to love someone or something? Why is love important?

Friendship– What is a friend? Can we be friends with animals?

Loss – How can loss affect us? How can we overcome it?

Grief - What does it mean to grieve for someone?

Responsibility – What does it mean to be responsible for something? How can being responsible for something make a difference to us?

Year 7 French

All about me

Opinions	
j'aime	*I like*
je n'aime pas	*I don't like*
Tu aimes...?	*Do you like...?*
il/elle aime	*he/she likes*
Oui, j'aime ça.	*Yes, I like that.*
Non, je n'aime pas ça.	*No, I don't like that.*
Tu es d'accord?	*Do you agree?*
Je suis d'accord.	*I agree.*
Je ne suis pas d'accord.	*I don't agree.*
C'est...	*It's...*
génial	*great*
cool	*cool*
bien	*good*
ennuyeux	*boring*
nul	*rubbish*
essentiel	*essential*
important	*important*
Ce n'est pas bien.	*It's not good*

Musicians	
Il/Elle joue...	*He/She plays...*
de la batterie	*the drums*
de la guitare	*the guitar*
Il/Elle chante.	*He/She sings.*
Il/Elle a beaucoup de talent.	*He/She has a lot of talent.*

How to learn new words ...

Look, say, cover, write, check

Use the five steps below to learn how to spell any word.

1. LOOK carefully at the word for at least 10 seconds.
2. SAY the word to yourself or out loud to practise pronunciation.
3. COVER up the word when you feel you have learned it.
4. WRITE the word from memory.
5. CHECK your word against the original. Did you get it right? If not, what did you get wrong? Spend time learning that bit of the word. Go through the steps again until you get it right.

My survival kit	
j'ai	*I have*
je n'ai pas de	*I don't have*
tu as	*you have*
il/elle a	*he/she has*
un appareil photo	*a camera*
une barre de céréales	*a cereal bar*
un bâton de colle	*a gluestick*
des chips (f pl)	*crisps*
des clés (f pl)	*keys*
une clé USB	*a memory stick*
une gourde	*a water bottle*
des kleenex (m pl)	*tissues*
des lunettes de soleil (f pl)	*sunglasses*
un magazine	*a magazine*
un miroir	*a mirror*
un MP3	*an MP3 player*
un portable	*a mobile phone*
un portemonnaie	*a purse*
un paquet de mouchoirs	*a packet of tissues*
un sac	*a bag*
des surligneurs fluo (m pl)	*fluorescent highlighters*
une trousse	*a pencil case*

un verbe important	être = to be
je suis – I am	nous sommes – we are
tu es – you are	vous êtes – you are
il/elle/on est – he/she/it is	ils/elles sont – they are

un verbe important	aimer = to like
j'aime – I like	nous aim**ons** – we like
tu aim**es** – you like	vous aim**ez** – you like
il/elle/on aime – he/she/it likes	ils/elles aim**ent** – they like

zone culturelle

Research a *département* or *région* of choice

High frequency words	
et	*and*
aussi	*also*
mais	*but*
très	*very*
assez	*quite*
toujours	*always*
Qu'est-ce que...?	*What...?*
Qui...?	*Who...?*

My self-portrait

les animaux (m pl)	*animals*
les araignées (f pl)	*spiders*
la capoeira	*capoeira (a Brazilian dance)*
les chats (m pl)	*cats*
les chiens (m pl)	*dogs*
le cinéma	*cinema*
les consoles de jeux (f pl)	*games consoles*
la danse	*dancing*
le foot	*football*
les gâteaux (m pl)	*cakes*
le hard rock	*hard rock*
l'injustice (f)	*injustice*
les insectes (m pl)	*insects*
les jeux vidéo (m pl)	*video games*
les livres (m pl)	*books*
la musique	*music*
les mangas (m pl)	*mangas*
les maths (m pl)	*maths*
les pizzas (f pl)	*pizzas*
la poésie	*poetry*
le racisme	*racism*
le rap	*rap*
le reggae	*reggae*
les reptiles (m pl)	*reptiles*
le roller	*roller-skating*
le rugby	*rugby*
le skate	*skateboarding*
les spaghettis (m pl)	*spaghetti*
le sport	*sport*
la tecktonik	*tecktonik (dance)*
la télé	*TV*
le tennis	*tennis*
le théâtre	*theatre, drama*
les voyages (m pl)	*journeys*
la violence	*violence*
les weekends (m pl)	*weekends*

Me and other people

je suis	*I am*
je ne suis pas	*I am not*
tu es	*you are*
il/elle s'appelle	*he/she is called*
il/elle est	*he/she is*
beau/belle	*good-looking*
branché(e)	*trendy*
charmant(e)	*charming*
cool	*cool*
curieux/curieuse	*curious*
de taille moyenne	*average height*
drôle	*funny*
généreux/généreuse	*generous*
gentil(le)	*nice*
grand(e)	*tall*
impatient(e)	*impatient*
intelligent(e)	*intelligent*
modeste	*modest*
petit(e)	*small*
poli(e)	*polite*

le monde du travail

Find out what a customer officer does

Term 1 Checklist

- ☐ use regular *–er* verbs (*je, tu, il/elle* forms)
- ☐ use regular *–er* verbs (*je, tu, il/elle* forms)
- ☐ use regular *–er* verbs (*je, tu, il/elle* forms)
- ☐ use *ne ... pas*
- ☐ use the connectives *et, mais* and *aussi*

- ☐ talk about what is in my survival kit
- ☐ say what is important to me
- ☐ use *Qu'est ce que ...*
- ☐ use *avoir* (*je, tu, il/elle* forms)

- ☐ describe myself
- ☐ use *être* (*je, tu, il/elle* forms)
- ☐ use singular adjectives
- ☐ use the intensifiers *très* and *assez*

- ☐ describe someone else
- ☐ use plural adjectives
- ☐ use possessive adjectives

- ☐ describe a musician
- ☐ use *je, tu, il* and *elle* forms of regular *–er* verbs + *avoir* and *être*

Eyes and hair

j'ai	*I have*
tu as	*you have*
il/elle a	*he/she has*
mon ami(e) a	*my friend has*
J'ai les yeux bleus/verts/gris/marron.	*I have blue/green/grey/brown eyes.*
J'ai les cheveux longs/courts/mi-longs.	*I have long/short/medium-length hair.*
frisés/raides	*curly/straight*
blonds/bruns/noirs/roux	*blond/brown/black/red*

Year 7 German

My World

Meeting and greeting	
Wie heißt du?	*What's your name?*
Ich heiße ...	*My name is ...*
Hallo!	*Hello!/Hi!*
Guten Tag!	*Hello!*
Wie geht's?	*How are you?*
Gut, danke. Und dir?	*Fine, thanks. And you?*
Nicht schlecht.	*Not bad.*
Tschüs!	*Bye!*
Auf Wiedersehen!	*Goodbye!*
Wie alt bist du?	*How old are you?*
Ich bin ... Jahre alt.	*I am ... years old*

Where do you live?	
Ich wohne in ...	*I live in ...*
Er/Sie/Es wohnt in ...	*He/She/It lives in ...*
...England	*England*
...Irland	*Ireland*
...Nordirland	*Northern Ireland*
...Schottland	*Scotland*
...Wales	*Wales*
...Deutschland	*Germany*
...Österreich	*Austria*
...der Schweiz	*Switzerland*

Verbfokus	wohnen = to live
ich wohne – I live	wir wohn**en** – we live
du wohn**st** – you live	ihr woh**nt** – you live
	Sie wohn**en** – you live
er/sie/es woh**nt** – he/she/it lives	sie wohn**en** – they live

High frequency words	
und	*and*
(und) auch	*(and) also*
aber	*but*
oder	*or*
sehr	*very*
ziemlich	*quite*
nicht	*not*

Question words	
Wie?	*How?*
Was?	*What?*
Wo?	*Where?*
Woher?	*Where ... from?*
Wer?	*Who?*

Berufsprofil

Find out about these German companies

Lufthansa

KNORR-BREMSE

Hapag-Lloyd

BMW

BAYER

SIEMENS

adidas

ALDI

BOSS HUGO BOSS

Beiersdorf

COMMERZBANK

TUI

What are you like?

Ich bin …	*I am …*
Er/Sie	*He/She is …*
faul	*lazy*
freundlich	*friendly*
intelligent	*intelligent*
kreativ	*creative*
launisch	*moody*
laut	*loud*
lustig	*funny*
musikalisch	*musical*
sportlich	*sporty*

I have …

Ich habe …	*I have …*
einen Computer	*a computer*
einen iPod	*an iPod*
einen Fußball	*a football*
eine Gitarre	*a guitar*
eine Wii	*a Wii*
eine Schlange	*a snake*
ein Handy	*a mobile phone*
ein Keyboard	*a keyboard*
ein Skateboard	*a skateboard*

Numbers 0–19

null	*0*	zehn	*10*
eins	*1*	elf	*11*
zwei	*2*	zwölf	*12*
drei	*3*	dreizehn	*13*
vier	*4*	vierzehn	*14*
fünf	*5*	fünfzehn	*15*
sechs	*6*	sechzehn	*16*
sieben	*7*	siebzehn	*17*
acht	*8*	achtzehn	*18*
neun	*9*	neunzehn	*19*

How to learn new words …

Ask yourself:

1. Do I know what it means when I see it?
2. Can I pronounce it?
3. Can I spell it correctly?
4. Can I use it in a sentence?

Look, Say, Cover, Write, Check Use these five steps to learn the meaning, pronunciation, and spelling of new words.

1. Look carefully at the word. Close your eyes and try to picture the word in your mind. This uses your visual memory.
2. Say the word out loud to yourself. This uses your auditory memory.
3. Cover the word - say it and 'see' the word in your mind.
4. Write the word out from memory.
5. Check your word against the original. Did you get it right? Combining seeing, listening, and doing strategies makes memorising more effective.

Verbfokus	sein = to be
ich bin – I am	wir sind – we are
du bist – you are	ihr seid – you are
	Sie sind – you are
er / sie / es ist – he / she / it is	sie sind – they are

My favourite things

Mein Lieblingssport	*My favourite sport*
Mein Lieblingsmonat	*My favourite month*
Meine Lieblingsmusik	*My favourite music*
Meine Lieblingszahl	*My favourite number*
Meine Lieblingssendung	*My favourite programme*
Meine Lieblingsfußballmannschaft	*My favourite football team.*
Mein Lieblingsspiel	*My favourite game*
Mein Lieblingsland	*My favourite country*
Mein Lieblingsauto	*My favourite car*

Term 1 Checklist

- [ ] introduce myself and greet others
- [ ] recognise the three words for 'the' in German
- [ ] pronounce German words and predict spellings

- [ ] use the numbers 0–19
- [ ] ask how old someone is and give my age
- [ ] use the verb ***sein*** (*ich*, *du* and *er/sie/es* forms)

- [ ] use the German alphabet to understand how words are spelled
- [ ] ask and say how a word is spelled
- [ ] use the verb ***wohnen*** (*ich*, *du* and *er/sie/es* forms)

- [ ] describe my character
- [ ] talk about some favourite things
- [ ] use ***mein/meine*** and ***dein/deine*** correctly
- [ ] use cognates to decode meanings
- [ ] use the connectives ***und***, ***aber***, (***und***) ***auch*** and the qualifiers (***nicht***) ***sehr***, ***ziemlich***

- [ ] ask questions using questions words (***wie***, ***was***, ***wo***, ***wer***, ***woher***)

- [ ] check genders and capital letters of nouns
- [ ] check spellings
- [ ] write sentences from memory and then check my work
- [ ] use a variety of connectives and qualifiers to increase the length and interest of my sentence

Kulturzone

Find out about Austria's National Day

Year 7 Geography

How do settlements change over time?

Where is Bradford-on-Avon?

Bradford-on-Avon (BoA) is a small town of 10,500 people in the west of the county of Wiltshire. Wiltshire is in the south west of England, in the UK.

BoA is a historic town, with buildings dating back to the 17th century, when it was a textile milling town.

BoA has good transport links to its surrounding areas through roads like the A363 and is close to the M4.

How do towns change?

Services

More money to spend means more shops etc. appear in areas over time, highstreets become larger.

Transport

Roads became wider and more stable once cars were invented. There are more roads today as population has risen.

Housing

Population rise means more houses are needed. They have gone from dispersed to nucleated and linear settlements.

Land use

Over time, less land in the UK is used for farming, opening up new opportunities for recreation and technology.

Key Terms

Settlement

A place where people live

Site

The physical land I which a settlement is based on

Linear

In a line

Nucleated

Clustered together

Dispersed

Far apart

Topography

The physical features and landforms of an area

Land use

The human use of land

Shelter

Protection or a shield from weather or danger

Sustainability

Meeting the needs of the present without compromising the future

OS Maps

Maps produced by the national mapping agency – Ordnance Survey

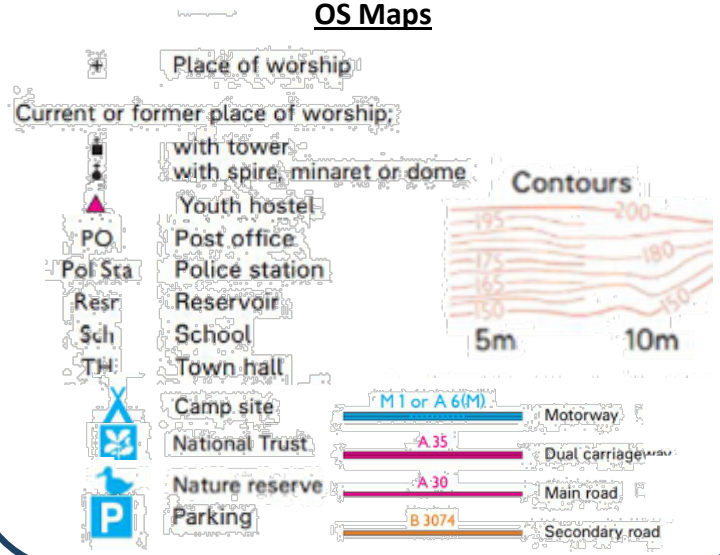
Contour Lines

Lines on a map joining areas of equal height above sea level

Population

People who live in a certain area

OS Maps



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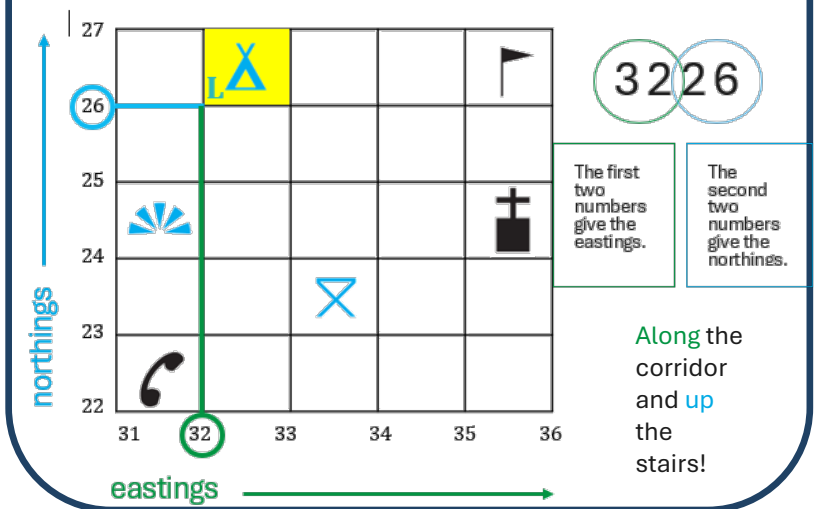


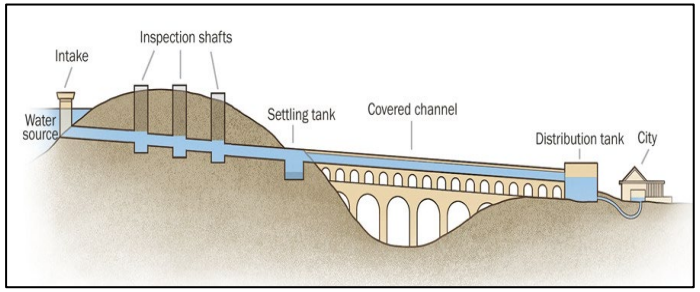
Year 7 History

How and why has sanitation in Britain changed over time?

Roman (AD43-AD410)	Medieval (400-1450)	Early Modern (1450-1750)	Early Industrial (1750-1850)	Later Industrial (1850-1900)

Roman Period

- The Roman **government** saw it as their responsibility to maintain good sanitation as they understood that it would improve **public health**.
- The government dealt with sewage disposal by building public toilets, known as **latrines**.
- The Romans were excellent engineers and used **technology** to create **infrastructure** that helped to improve sanitation



Middle Ages

- **Sanitation** in **monasteries** was much better than towns due to their wealth and religious beliefs.
- Human waste was a big problem in crowded medieval towns. Wealthier people had their own privy, but most people shared a privy with several other houses.
- Mayors and councillors knew that improving sanitation would be expensive and they did not want to become unpopular by increasing local taxes to fund these improvements.

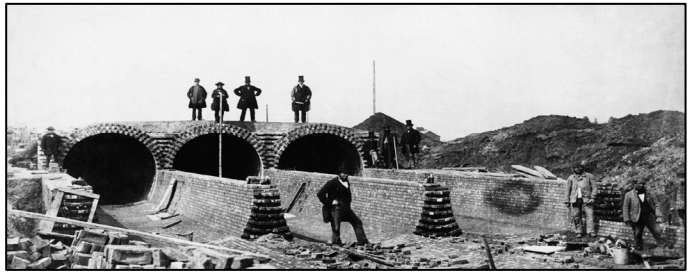
Early Modern Period

- There was more **continuity** than **change** during the Early Modern Period.
- Nearly everyone still used **privies** and shared them with their neighbour.
- **HOWEVER**, The first flushing water closet (like a modern-day toilet) was invented in 1596.

Key term	Definition
Sanitation	The provision of clean drinking water and adequate sewage disposal.
Conduits	A stone channel used to carry water of long distances.
Cesspit	A pit used for collecting human excrement.
Latrines	A public toilet.
Privy	a toilet located in a small shed outside a house or building.
Laissez-faire:	The belief that governments should leave people to look after themselves.
Progress:	Things changed and improved.
Continuity	Things stay the same.
Regression:	Things go backwards and get worse.

Industrial Period: 1750-1850

- Local and national government did not think it was their job to ensure people had clean water and proper sewers. This was known as a **laissez-faire** attitude.
- Few people had clean water piped to their homes.
- Most people still shared privies, which were not connected to drains. Cesspits would often overflow and contaminate drinking water, leading to outbreaks of Cholera, **1848** (60,000 dead) & **1854** (20,000 dead)



Industrial Period: 1850-1900

- This period saw **rapid progress** in sanitation.
- The **Great Stink** of **1858** and the **1867 Reform Act**, which gave working class men the vote, both led the government to do more to improve sanitation.
- In **1858** the government gave **Joseph Bazelgette** £3 million to build a sewer system for London.
- In **1860**, a French scientists called **Louis Pasteur** proved that tiny micro-organisms called germs cause disease. This was a turning point in medical knowledge.

Year 7 Maths Terms 1 & 2

Number Sense

Key Learning

Place Value

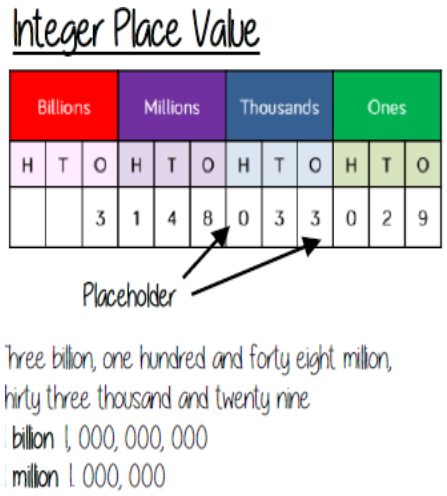
- Understand the value of digits in decimals, measure and integers.

Properties of Number

- Understand Multiples, factors and primes.
- Understand integer exponents and roots.
- Understand and use Prime factorisation of a number.

Arithmetic Procedures With Integers and Decimals

- Understand the structures that underpin addition and subtraction strategies.
- Understand the structures that underpin multiplication and division strategies.
- Use conventions of arithmetic to calculate efficiently



Keywords

Term	Definition	Example
Integer	A whole number that is positive or negative	7, 4, -2,
factor	a number that divides exactly into another number	factors of 12 = 1, 2, 3, 4, 6, 12
common factor	factors of two numbers that are the same	common factors of 8 and 12 = 1, 2, 4
prime number	a number with only 2 factors: 1 and itself	2, 3, 5, 7, 11, 13, 17, 19…
composite number	a number with more than two factors	12 (it has 6 factors)
prime factor	a factor that is prime	prime factors of 12 = 2, 3
multiple	a number in another number's times table	multiples of 9 = 9, 18, 27, 36…
common multiple	multiples of two numbers that are the same	common multiples of 4 and 6 = 12, 24…
Exponent	The power to which a given number is to be raised	$5^3 = 5x5x5$
square numbers	the result when a number has been multiplied by itself	25 ($5^2 = 5x5$) 49 ($7^2 = 7x7$)
Square root	The number that is multiplied by itself to give a certain value	7 is the square root of 49 because 7x7 = 49
cube numbers	the result when a number has been multiplied by itself 3 times	8 ($2^3 = 2x2x2$) 27 ($3^3 = 3x3x3$)
Product	The result of a multiplication	2x6 = **12**
Quotient	The result of a division	12/6 = **2**

Year 7 Maths Terms 1 & 2

Number Sense

Compare integers using <, >, =, ≠

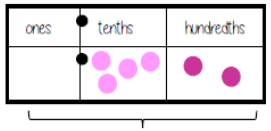
< less than
> greater than
= equal to
≠ not equal to

Two and a half million = 2 500 000
300 000 000 = Three billion
Six thousand and eighty < 68 000

Decimals

We say "nought point five two"

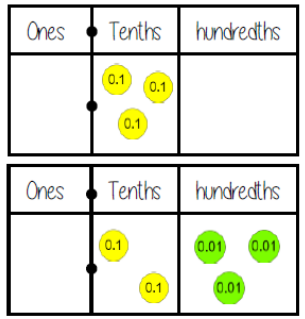
Five tenths and two hundredths



0 ones, 5 tenth and 2 hundredths
0 + 0.1 + 0.1 + 0.1 + 0.1 + 0.1 + 0.001 + 0.001
= 0 + 0.5 + 0.02
= 0.52

Comparing decimals

Which the largest of **0.3** and **0.23**?



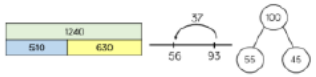
$0.3 > 0.23$

"There are more counters in the furthest column to the left"

0.30
0.23

Comparing the values both with the same number of decimal places is another way to compare the number of tenths and hundredths

Addition/ Subtraction with integers



Modelling methods for addition/ subtraction

- Bar models
- Number lines
- Part/ Whole diagrams

Addition is commutative

6 + 3 = 3 + 6

The order of addition does not change the result

Subtraction the order has to stay the same

360 – 147 = 360 – 100 – 40 – 7

- Number lines help for addition and subtraction
- Working in 10's first aids mental addition/ subtraction
- Show your relationships by writing fact families

Formal written methods

	H	T	O
	1	8	7
+	5	4	2

	H	T	O
	4	2	7
–	2	4	9

Remember the place value of each column. You may need to move 10 ones to the ones column to be able to subtract

Mental methods for multiplication/ division

Multiplication is commutative

2 × 4 = 4 × 2

The order of multiplication does not change the result

Partitioning can help multiplication

24 × 6 = 20 × 6 + 4 × 6
= 120 + 24
= 144

Division is not associative

Chunking the division can help 4000 ÷ 25 "How many 25's in 100" then how many chunks of that in 4000.

Mental methods for decimals

Multiplying by a decimal < 1 will make the original value smaller e.g x 0.1 = ÷ 10

Methods for multiplication 1.2 x 0.03

12 × 3 = 36
1.2 × 3 = 3.6
1.2 × 0.3 = 0.36
1.2 × 0.03 = 0.036

12 × 3 = 36
÷ 10 ÷ 100 ÷ 1000
1.2 × 0.03 = 0.036

Methods for addition 2.3+2.4

2 + 2 = 4
0.3 + 0.4 = 0.7
4 + 0.7 = 4.7

Methods for division 1.5 ÷ 0.05

Multiply by powers of 10 until the divisor becomes an integer

1.5 ÷ 0.05
×100 ×100
150 ÷ 5 = 30

Addition/ Subtraction with decimals

4	.	3	8	
7	.	9	0	+

0 can be used to fill empty places with value

The decimal place acts as the placeholder and aligns the other values

If  represents 1 instead of 100

Revisit Fraction – Decimal equivalence

$5.43 + \frac{8}{10}$

5.43 + 0.8

Year 7 Maths Terms 1 & 2

Number Sense

Directed number

Addition

$2 + -4 = -2$

Zero pair ($-1 + 1 = 0$)

Two "-1" left $= -2$

Generalisation: $+ - = -$

Subtraction

$= 2$

Representation for calculation

"Subtract" – means take away or remove

$2 - - 1 = 3$

Take away one

$= 3$

Start with the representation of 2

Generalisation: $- - = +$

Multiplication

$= -1$

$= 1$

The act of making counters into their negative is turning them over

$-2 \times -3 = 6$

Divisions are the inverse operations

$a = 5$ $b = -4$

Brackets around negative substitutions helps remove calculation errors

$2a - b = 2 \times 5 - (-4) = 10 + 4 = 14$

Use order or operations

( )

^{2} & $\sqrt{}$

× & ÷

+ & –

Brackets

Indices or roots

Multiplication or division

Addition or subtraction

Brackets around negative substitutions helps remove calculation errors

Remember square roots have a positive and negative value

×	−3	−2	−1	0	1	2	3
−3	9	6	3	0	−3	−6	−9
−2	6	4	2	0	−2	−4	−6
−1	3	2	1	0	−1	−2	−3
0	0	0	0	0	0	0	0
1	−3	−2	−1	0	1	2	3
2	−6	−4	−2	0	2	4	6
3	−9	−6	−3	0	3	6	9

Useful Links for revision

MyMaths

Latest - MyMaths Library

www.mymaths.co.uk

Corbettmaths

www.corbettmaths.com

Corbettmaths – Videos, worksheets, 5-a-day and much more

HCF/LCM

1 is a common factor of all numbers

Common factors are factors two or more numbers share

HCF – Highest common factor

HCF of 18 and 30

18: 1, 2, 3, 6, 9, 18

30: 1, 2, 3, 5, 6, 10, 15, 30

HCF = 6

LCM – Lowest common multiple

LCM of 9 and 12

9: 9, 18, 27, 36, 45, 54

12: 12, 24, 36, 48, 60

LCM = 36

The first time their multiples match

Product of prime factors

Multiplication part-whole models

30 → 2, 15 → 5, 3

30 → 3, 10 → 2, 5

30 → 5, 6 → 2, 3

All three prime factor trees represent the same decomposition

Multiplication is commutative

$30 = 2 \times 3 \times 5$ ← Multiplication of prime factors

Using prime factors for predictions

e.g. 60	30×2	$2 \times 3 \times 5 \times 2$
150	30×5	$2 \times 3 \times 5 \times 5$

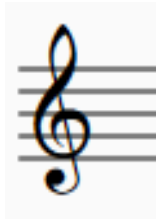
Year 7 Music

Elements of Music

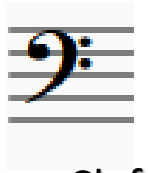
Pitch	How HIGH or LOW a sound is
Pulse	The BEAT
Tempo	The SPEED
Dynamics	The VOLUME
Melody	The TUNE
Rhythm	The pattern of notes in relation to the beat
Harmony	Different pitches combined together
Timbre	The TYPE of sound eg brass/strings/mellow
Texture	How the different layers fit together
Silence	The complete absence of sound

Perform – to play or sing a piece of music. This usually refers to a song or piece which has been composed by someone else already.

Compose – to make up your own song or piece of music.

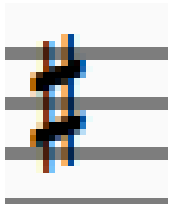


Treble Clef

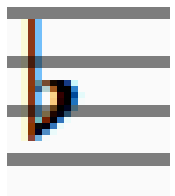


Bass Clef

Time Signature



Sharp



Flat

Year 7 Music

The Orchestra

Orchestra

Strings
Woodwind
Brass
Percussion

Conductor

Timbre
Texture

Year 7 PE

Rugby

Key Skills

- ✓ Ball Carrying
- ✓ Passing
- ✓ Receiving
- ✓ Tackling
- ✓ Rucking
- ✓ Communication
- ✓ Teamwork

Supporting the Ball Carrier

- Stay behind the ball carrier to be available for a pass.
- 'V' shape for the attacking line
- Closest two players enter the ruck if teammate is tackled.
- Communicate with the ball carrier.

Passing/Receiving

- Ball must be passed sideways or backwards.
- Pass with two hands.
- Swing the arms together.
- Finish with hands towards the target.
- Hands in 'W' position to receive the ball.
- Communicate with the ball carrier.

Rucking

- "Tower of Power"
- Low body position
- Drive opposition players out of the ruck.
- Hold a strong base to protect the ball and prevent other players from driving you away.

Key Terminology and Rules

Game starts and restarts with a kick off.

Passing must go sideways or backwards.

Tackling must be below the chest.

Points are scored through tries, conversions and penalties.

Try – When a player touches the ball down over their opponent's goal line. Worth 5 points

Conversion – After a try is scored, the scoring team can add an extra two points by kicking the ball through the posts.

Ruck – This is the contest between opposing players when the ball carrier has been tackled.

Scrum – This is a set-piece involving the forwards on both teams who 'push' against each other to try and secure possession of the ball.

Line Out – This happens when the ball goes off the side of the pitch. The hooker throws the ball into the pitch with players from both teams competing against each other to secure the ball.

Knock-on – When a player drops the ball, and it goes forwards. This results in a scrum being awarded to the opposition.

Penalty – This is when a player is penalised for doing something against the rules (e.g. tackling too high). The team awarded the penalty have the option to kick the ball out, kick for the posts, have a scrum or tap the ball and run.

Offside – This is when the defending team are on the oppositions side of the ruck after a tackle. This will

Defensive Line

- Straight/Flat defensive line across the pitch
- "Wall" of defence
- Eyes on the opponent that is stood opposite you.
- Move forward to meet your opponents.
- Communicate with teammates to move up as a team.

Tackling

- "Tower of Power"
- Feet shoulder width apart
- Knees flexed.
- First contact with the shoulder
- Ring of steel with your arms
- Cheek to cheek
- Head finished on top of opponent.
- Release once tackle is completed and roll away.

Year 7 PE

Netball

Key Skills

- ✓ Footwork
- ✓ Passing
- ✓ Receiving
- ✓ Shooting
- ✓ Marking
- ✓ Communication

Footwork

- Have a strong base and be aware of your first foot to touch the floor.
- Bring ball into your body to protect it.
- Your first foot must remain on the floor. Swivel with your second foot, twisting your hips to change the way you're facing – this is known as pivoting.

Passing/Receiving

- Eyes on teammates to see where and how to pass
- Chest pass – push ball away from chest height with two hands
- Overhead pass – both hands above your head and extend elbows in direction of teammate.
- Shoulder pass – push the ball with one hand from shoulder height.
- Bounce pass – push the ball from shoulder height towards the ground so that it bounces to a teammate.
- Finish with hands towards the target
- Hands in 'W' position to receive the ball.

Shooting

- Feet shoulder width apart
- Face towards the post
- Shooting hand at back of the ball
- Fingers slightly open with elbow and knees flexed.
- Extend elbows and knees. flex wrists

Key Terminology

Goal – When the GA or GS successfully gets the ball into the net. Play restarts with a centre pass.

Footwork – When a player 'travels' taking a step when in control of the ball. Ball is given to the opposing team.

Contact – This is when a player makes contact with an opposing player. Foul awarded to the team on the receiving end of contact.

Offside – When a player goes into a third that they are not allowed to with their position. Play restarts with the opposition team.

Obstruction – When a defending player is too close to the player in possession of the ball. Play restarts with the player in possession of the ball.

Dodging

- Body upright with weight on balls of your feet
- Push off one foot to change direction.
- Use arms to lead off into new direction.
- Hands out ready to receive.

Marking

- Stand in front of opposition player slightly to the side.
- Be aware of player and where the ball is.
- Keep on your toes and move with the attacker.
- Hands out ready to intercept or block the ball.
- Communicate with teammates.

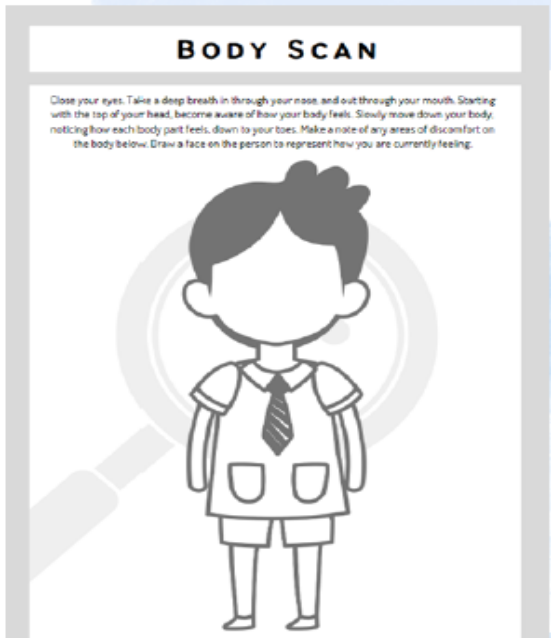
PSHE

What is Mindfulness?

Mindfulness is when you focus on the present. You can do this by paying attention to your body and what you're feeling. You can also focus on your surroundings and what's happening around you. When you're mindful, you're not judging or trying to change anything. You're just observing.

Mindfulness can help you become more aware of your thoughts and feelings so that you can manage them better. It can also help you be more present in the moment and appreciate the things around you, leading to more positive emotions. When you're mindful, you're less likely to get caught up in your thoughts and worries, and you're more likely to be able to enjoy the present moment. Positive affirmations can also form part of mindfulness training.

Mindfulness is a simple concept, but it can be hard to do. It takes practice to learn how to be mindful. But once you get the hang of it, mindfulness can be a helpful tool for managing stress and anxiety.



'What you think,
YOU BECOME

What you feel,
YOU ATTRACT

What you imagine,
YOU CREATE'
BUDDHA

Tips on getting the most from mindfulness

To get the most out of mindfulness exercises, try your best to:

Pay attention. Focus on things you can see, hear, smell, taste or touch. For example, when you take a shower, make a special effort to really pay attention to how the water feels on your skin.

Take notice. When your mind wanders, which is just what minds do, simply notice where your thoughts have drifted to. Some people find it helpful to name and acknowledge the feelings and thoughts that come up. For example, you could think to yourself 'this is a feeling of anger', or 'here is the thought that I'm not good enough'.

Be aware and accepting. Notice and be aware of the emotions you are feeling or sensations in your body. You don't need to try and get rid of any feelings or thoughts. Try to observe and accept these feelings with friendly curiosity, and without judgement.

Choose to return. Choose to bring your attention back to the present moment. You could do this by focusing on your breathing or another sensation in your body. Or you could focus on your surroundings – what you can see, hear, smell, touch or taste.

Be kind to yourself. Remember that mindfulness can be difficult and our minds will always wander. Try not to be critical of yourself. When you notice your mind wandering, you can just gently bring yourself back to the exercise.

MINDFULNESS

Mindfulness exercises you can try

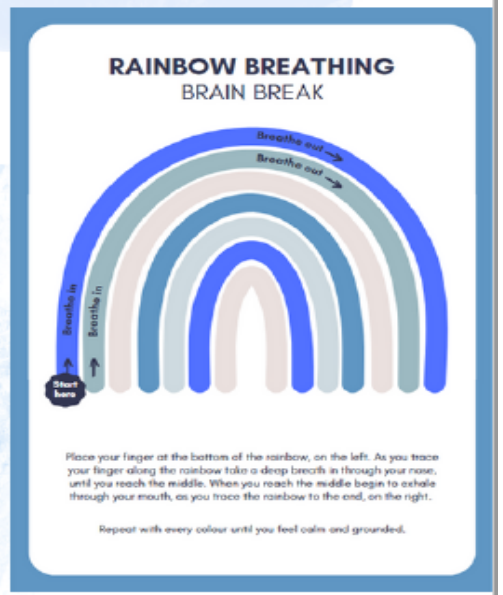
Mindful eating. This involves paying attention to the taste, sight and textures of what you eat. Try this when drinking a cup of tea or coffee for example. You could focus on the temperature, how the liquid feels on your tongue, how sweet it tastes or watch the steam that it gives off.

Mindful moving, walking or running. While exercising, try focusing on the feeling of your body moving. If you go for a mindful walk, you might notice the breeze against your skin, the feeling of your feet or hands against different textures on the ground or nearby surfaces, and the different smells around you.

Body scan. This is where you move your attention slowly through different parts of your body. Start from the top of your head and move all the way down to the end of your toes. You could focus on feelings of warmth, tension, tingling or relaxation of different parts of your body.

Mindful colouring and drawing. Rather than trying to draw something in particular, focus on the colours and the sensation of your pencil against the paper. You could use a mindfulness colouring book

Mindful meditation. This involves sitting quietly to focus on your breathing, thoughts, sensations in your body or things you can sense around you. Try to bring your attention back to the present if your mind starts to wander. Many people also find that yoga helps them to concentrate on their breathing and focus on the present moment



Year 7 RE

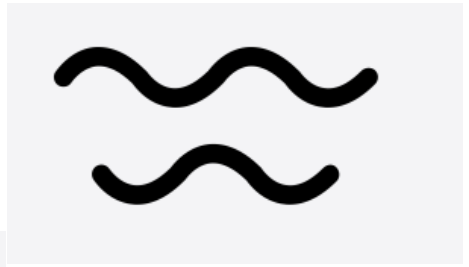
Divine Authority	
Authority	A person who has been given power, responsibilities and expertise
Omnipotent	All powerful, the power to control nature
Omnibenevolent	All loving, God loves everyone no matter what
Omniscient	All knowing. God knows the past present and future

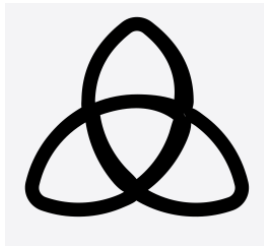
Biblical Authority	
Literal interpretation	The meaning of the Bible is word for word true and exactly as it is in the bible
Nonliteral interpretation	The bible has a deeper meaning. It is not intended as factually correct
Conservative	A fixed view, which does not change with society
Liberal	A view that changes as society changes

Jesus' Authority	
Trinity	God in three forms or persons. Father, Son and Holy spirit
Jesus	God in human form.
Messiah	A term given to Jesus, meaning saviour or liberator
Miracle	Something that breaks the laws of nature, is difficult to explain and comes from God
Historical Jesus	The Jesus according to historical fact

What is Authority?

Key evidence
"God notices the death of a sparrow"
"God even makes wind"
"Even the wind and waves obey him"
"The word became flesh"



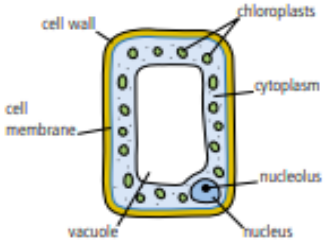


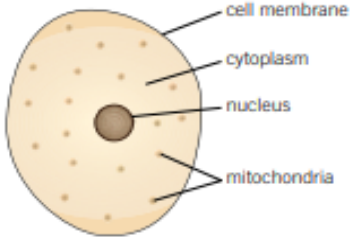
Year 7 Science

Cells

Plant and animal cells

Cells have smaller structures inside them, called components, that each have an important function.





Specialised cells

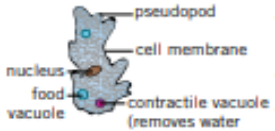
Specialised cells have special features that allow them to do a specific job or function:

	Cell type	Function	Special features	Diagram
plant cells	root hair cell	absorb water and nutrients from soil	• root hair creates a large surface area • no chloroplasts as no light underground	
	leaf cell (palisade cell)	carry out photosynthesis	• found at the top surface of leaves • packed with chloroplasts • thin with a large surface area to absorb more light	
animal cells	red blood cell	transport oxygen around the body	• contain haemoglobin which joins to oxygen • no nucleus • disc shaped to increase surface area	
	nerve cell (neurone)	carry electrical impulses around the body	• long and thin with connections at each end	
	sperm cell	carry male genetic material	• streamlined head and a long tail • lots of mitochondria to transfer energy	

Unicellular organisms

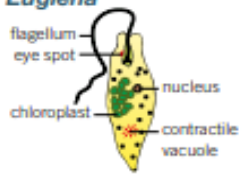
A **unicellular** organism only consists of one cell. They have no fixed shape and are adapted to carry out many different functions.

Amoeba



- nucleus controls growth and reproduction
- move by moving part of their body and the rest follows slowly in the same direction
- eat bacteria, algae, and plant cells by engulfing them
- reproduce by splitting in half (binary fission)

Euglena



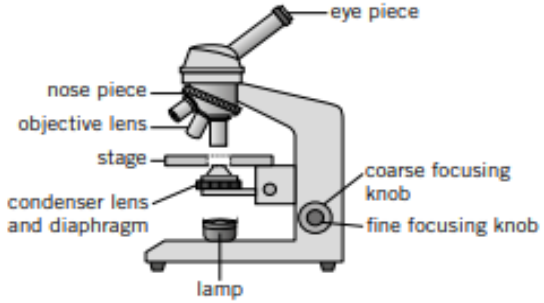
- microscopic organism found in fresh water
- contain chloroplasts and make their own food by photosynthesis
- eye spot that detects light
- flagellum allows the *Euglena* to move towards the light to make more food

Microscopes

Cells can only be seen under a microscope. A microscope magnifies an object using lenses.

Remember that:

- the specimen needs to be thin so light can pass through
- a dye can be added to make the object easier to see.



Using a microscope

1. Move the stage to its lowest position.
2. Place the slide/object on the stage.
3. Choose the objective lens with the lowest magnification.
4. Look through the eyepiece and turn the coarse-focus knob slowly until you see the object.
5. Turn the fine focus knob until it comes into focus.
6. Repeat steps 1–5 using a higher magnification lens.

Movement in and out of cells

Particles move in and out of cells by **diffusion**.

During diffusion, particles spread out from where they are in *high* **concentration** to where they are in *low* concentration.

Diffusion in water is called **osmosis**.

Glucose and oxygen move from the blood **into** cells by diffusion.

Carbon dioxide moves **out of** cells to the blood by diffusion.

Science

Topic: Forces

P1

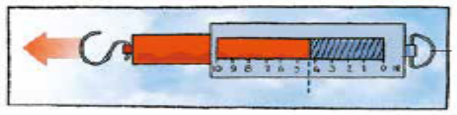
Chapter 1: Forces
Knowledge organiser

Activate
Question • Progress • Succeed

What are forces?

A **force** can be a *push* or a *pull*.

Forces can be measured using a **newtonmeter**.
Forces are measured in **newtons** (N).



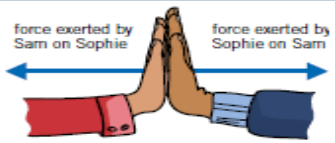
Contact forces occur when objects are touching, for example:

- **friction**
- **drag forces** (**air resistance** and **water resistance**)
- support forces (e.g., **reaction forces**)

Non-contact forces work at a distance, for example:

- **gravity**
- **magnetic force**
- **electrostatic force**

Forces always occur in pairs.
The pairs are called **interaction pairs**.



Balanced and unbalanced forces

When the forces acting on an object are the same size, but act in opposite directions, we say that they are **balanced**.
The balanced forces cancel out, and the object is in **equilibrium**.

If the forces are not the same size, and do not cancel each other out, we say they are **unbalanced**.
The larger the difference between unbalanced forces, the quicker the object will change speed.

Drag forces and friction

Friction is a contact force that occurs when two objects move against each other. It happens because all surfaces have some roughness – even ones that look smooth.
Friction can be reduced by adding **lubrication** (e.g., oil or grease).
Friction is often useful, for example:

- you need friction to walk across surfaces
- the brakes on a bike need friction to work.

A solid moving through a liquid or a gas has to push the liquid or gas particles out of the way. This produces a drag force on the solid object.

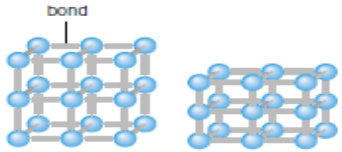
Water resistance and air resistance are drag forces.
Drag forces can be useful if we need to slow something down, for example, by using parachutes.
Making an object more **streamlined** will reduce the drag forces on it.

Reaction forces

When you stand on the floor:

- your weight pushes the particles in the floor together
- the bonds between the particles are **compressed**
- the compressed particles push back and support you.

A support force that balances the weight of an object is called the reaction force. **Upthrust** is another example of a support force.



Fields and non-contact forces

In physics, a **field** is a special region where certain objects experience a non-contact force. For example, when

- a mass experiences a force in a gravitational field
- a magnetic material (like iron) experiences a force in a magnetic field
- a charged object experiences a force in an electrostatic field.

As you get further away from a mass, a magnet, or a charged object, the field gets weaker.

Weight and mass

Mass is the amount of 'stuff' something is made of – it is measured in kilograms (kg).
Weight is a force so it is measured in newtons.

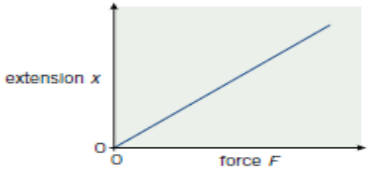
$$\text{weight (N)} = \text{mass (kg)} \times \text{gravitational field strength (N/kg)}$$

The **gravitational field strength** on Earth is about 10 N/kg.
Your weight depends on the gravitational field strength but your mass is the same everywhere.

Hooke's law

Some objects – like springs – can be **stretched** when pulled.
The amount they stretch by is called the **extension**.
A force called **tension** makes a spring return to its original length (unless it has gone beyond its **elastic limit**).

Hooke's law states that the extension of a spring doubles when you double the force. This means there is a **linear** relationship between force and extension.



Key terms Make sure you can write definitions for these key terms.

air resistance, balanced, compress, contact force, drag force, elastic limit, electrostatic force, equilibrium, extension, field, friction, gravitational field strength, gravity, Hooke's law, interaction pair, linear, lubrication, magnetic force, mass, newton, newtonmeter, non-contact force, reaction force, stretch, streamlined, tension, unbalanced, upthrust, water resistance, weight

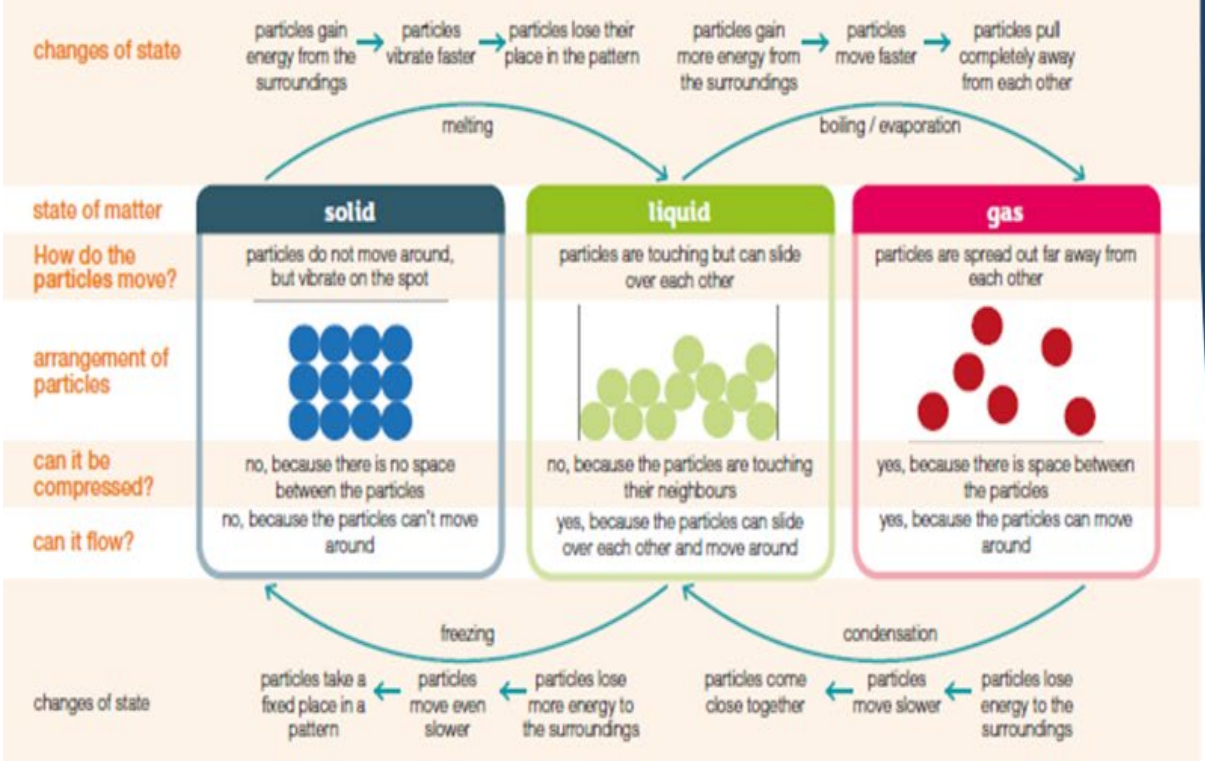
C1 Chapter 1: Particles and their behaviour

Activate

Knowledge organiser

Science

Topic: Particles



Sublimation

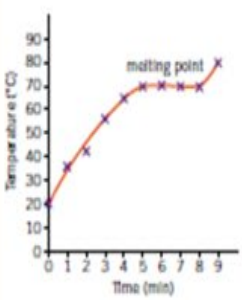
Some solids do not exist as liquids, but instead directly change state from solid to gas in a process called sublimation.

Melting and boiling points

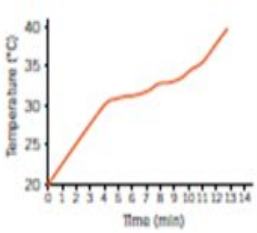
Melting point – the temperature at which a **substance** melts

Boiling point – the temperature at which a substance boils

If you heat a **solid** and plot a graph of temperature against time:



the melting point will appear as a flat line if the substance is **pure** (has only one type of particle).



If you don't see a flat line, the substance is a mixture (has different types of particle).

Diffusion

Particles move about randomly in liquids and gases and spread out through **mixtures**. This process is called diffusion. How quickly diffusion happens depends upon three variables:

Variable	Effect on diffusion
temperature	diffusion is faster at higher temperatures *because* particles move faster when hotter
particle size	diffusion is slower with larger, heavier particles
state of matter	diffusion is: • fast in gases • slow in liquids • doesn't happen in solids

Gas pressure

Gas particles move around, colliding with the walls of a container they are in. This causes a force called pressure. It depends on three variables:

Variable	Effect on gas pressure
temperature	Pressure increases at higher temperatures *because* particles move faster and therefore collide more frequently with the container.
particle size	Pressure increases with greater numbers of particles *because* there are more particles colliding with the walls of the container.
state of container	Pressure decreases as the size of container increases *because* particles have more space to move around, so they don't collide with the walls of the container as often.

Key terms Make sure you can write a definitions for these key terms.

boiling boiling point change of state condensation diffusion evaporation freezing gas liquid melting mixture particle solid state of matter sublimation substance