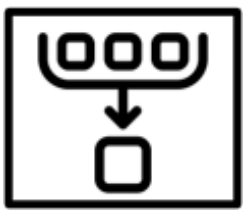
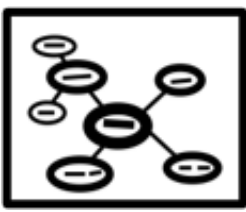


WHAT?WHEN?

KS3 Homework Timetable

Monday	Tuesday	Wednesday	Thursday	Friday
English	Maths	Science	DT	Art
Music	Drama	PE	History	Geography
	Computing	RPE	French	
Reading – see the list on the back of this booklet				

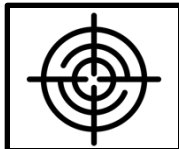
Week commencing	Box Number
3 rd November	8
10 th November	9
17 th November	10
24 th November	11
1 st December	12
8 th December	13
15 th December	14



Aim to complete 30 minutes on each of these platforms each week. You could do these during the extra slots on Mondays and Fridays.

8. Once – Vocabulary

Vocabulary	
Orphanage	A home for orphans (children who have lost their parents).
anti-Semitism	Prejudice against Jewish people.
ghetto	An area of a city where a minority group live.
curfew	A time by which you must be in at night.
heinous	Wicked
tolerance	Open-mindedness and acceptance of other people
heirloom	Something that you might inherit.
tragedy	A terrible event
brutality	Great cruelty.
resistance	The refusal to accept something.



9. Once Key Characters

Key Characters	
Felix	The main character of the book. He is a Jewish boy whose parents put him into a Catholic orphanage for his safety. He carries around a journal where he writes fictional adventures about his parents, believing that they might come back for him.
Zelda	She wears a locket with an important picture inside. She doesn't know what is happening in Poland at the time because she is too young.
Barney	He lives in a cellar with Jewish children, making sure they don't get caught by Nazi guards.

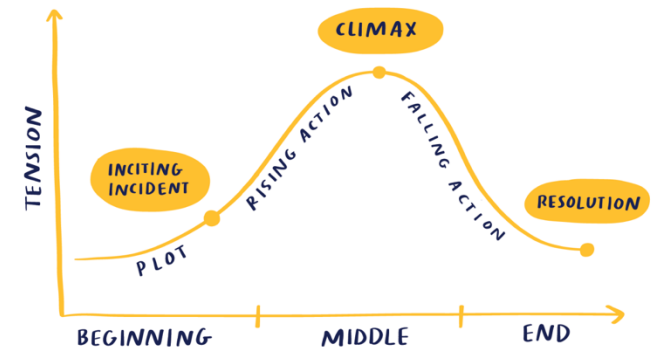


10. Different ways that tension can be created.

Writers use different strategies to build tension and to create a feeling of nervousness before an important or difficult event.

Here are some of the techniques that writers use to build up the tension:

- Short sentences and paragraphs
- Powerful verbs
- Rhetorical questions
- Repetition
- Sensory details
- Onomatopoeia
- Present tense
- Detailed description.



Challenge!

Research Anne Frank – a real child impacted by the cruelty of Adolf Hitler.

11. Parts of sentences

Term	Definition
verb	An action word
noun	A person, place or thing.
adjective	A word that describes a noun.
adverb	A word that describes a verb usually ending in "ly".
abstract noun	The name of a feeling or something non-physical.

Examples:

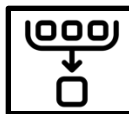
Adjective - green

Noun – apple

Abstract noun – hope

Verb - ate

Adverb – hungrily



12. Who was Janusz Korczak?

- Korczak was a writer and a teacher.
- He cared passionately about the rights and welfare of children.
- He founded an orphanage in Warsaw.
- He ran his orphanage as a democracy; the children had their own parliament, court and newspaper.
- He stayed with the children when they were sent to a concentration camp.

13. Important Quotations

Ch 1: "Once I was living in an orphanage in the mountains and I shouldn't have been and I almost caused a riot."

Ch 3: "Once I saw a customer, years ago, damaging books in Mum and Dad's shop."

Ch 4: "Why would half-naked people be packed into a truck like that?"

Ch 5: "All the Jewish people got taken."

Ch 6: "When you see real dead people, you want to cry."

Ch 8: "Why are the Nazis separating the kids from the adults?"

Ch 11: "What story can I tell to a Nazi officer in a bad mood?"

Ch 13: "Everybody has to have something good in their life at least once."

Ch 17: "However my story turns out, I'll never forget how lucky I am."

Gleitzman: "This story is my imagination trying to grasp the unimaginable."

You can try to learn at least 3 of these quotations to impress your English teacher.



Challenge!

Using these quotations, answer the question: "How does Gleitzman presented the treatment of the Jewish people in *Once*?"

14. Who was Anne Frank?

Written over the course of two years, Anne's diary details the time that her family spent in hiding during the Nazis' occupation of the Netherlands.

The Jewish Frank family moved into a secret annex on the premises of the company owned by Anne's father in order to escape capture by the Nazis.

They lived there with another Jewish family named the van Pels and, later, a Jewish dentist named Fritz Pfeffer.

Anne's diary was a 13th birthday present.

She celebrated two birthdays whilst she was in hiding.

Anne called her diary Kitty.

The residents of the hiding place were arrested on 4th August 1944

Anne died in early 1945.



8. Rhythm Values

Note Name	Note Symbol	Note Value
Semibreve		4 beats
Minim		2 beats
Crotchet		1 beat
Quaver		$\frac{1}{2}$ of a beat
Pair of Quavers		$2 \times \frac{1}{2}$ beats = 1



9. Rhythm Keywords (1)

PULSE – A regular **BEAT** that is felt throughout much music. Certain beats of the pulse can be emphasised to establish regular pulse patterns e.g.

1 2 3 4, 1 2 3 4 = a 4-beat pulse

1 2 3, 1 2 3 = a 3-beat pulse (often called a **WALTZ**)

1 2, 1 2, 1 2 = a 2-beat pulse (often called a **MARCH**)

RHYTHM – A series of sounds or notes of different lengths that create a pattern. A rhythm usually fits with a regular pulse. Everyday sentences can be used to create rhythms. The patterns made by words create rhythms and this rhythm has a 4-beat pulse:



10. Rhythm Keywords (2)

ACCENT – Emphasising or stressing a particular note or notes. Accents affect the **ARTICULATION** and are shown with this symbol >

DURATION – The length of a sound – long/short

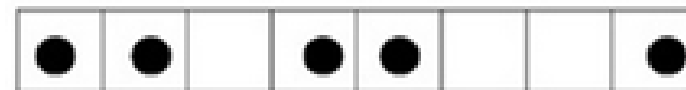
TEMPO – The speed of a sound or piece of music – fast/slow

TEXTURE – Layers of sound or how much sound is heard – thick/thin

STRUCTURE – The organisation of sound or how sounds are ordered

SILENCE – The absence of sound or no sound, shown in music by **RESTS**.

RHYTHM GRID NOTATION – A way of writing down and recording rhythms using boxes



Bottom Number =
TYPE OF BEAT

The first staff of music is written in treble clef with a 4/4 time signature. It contains two measures of music. The first measure contains four eighth notes, and the second measure contains four eighth notes. The notes are: G4, A4, B4, C5 in the first measure, and D5, E5, F5, G5 in the second measure.



3 beat rhythm	X		X		X		X		X	
2 beat rhythm	X			X			X			X



Challenge! Listen to your favourite song and identify the time signature by trying to conduct along with the song.

8. Sequences



Recognise and continue **sequences of patterns** or diagrams

26a

23a Recognising **arithmetic, geometric, quadratic** or **Fibonacci** patterns and continuing **sequences**



23a Recognising **arithmetic, geometric, quadratic** or **Fibonacci** patterns and continuing **sequences**

What types of sequences are the following

(a) 2, 5, 8, 11, 14, 17
 $+3+3+3+3$
Arithmetic
 A sequence is **arithmetic** if the same number is added each time

(b) 48, 24, 12, 6, 3
 $+2+2+2$
Geometric
 A sequence is **geometric** if the numbers are multiplied/divided by the same number each time

(c) 1, 4, 9, 16, 25
 $+3+5+7$
 $+2+2$
Quadratic
 A sequence is **quadratic** if the second difference is the same.

(d) 1, 1, 2, 3, 5, 8, 13
 $+0+1+1+3+5$
Fibonacci
 A sequence is **Fibonacci** when the previous two numbers are added together.



Writing out a **sequence** from a **term-to-term** rule

16a

16a Writing out a **sequence** from a **term-to-term** rule

Write the first five terms of these sequences

(a) **First term:** 7
Rule: add 3 each time
 ... and what we do to get the next number each time
 7, 10, 13, 16, 19

(b) **First term:** 128
Rule: halve each time
 128, 64, 32, 16, 8

(c) **First term:** 3
Rule: double then add 1 each time
 3, 7, 15, 31, 63

9. Functions 1

17a

Evaluating the output of **multi-step function machines**



17a Evaluating the output of **multi-step function machines**

Work out the output of this function machine when the input is

(a) 12 (b) 43 (c) 7.5

input -5 $\times 4$ output

First subtract 5... ... then multiply by 4

(a) $12 \rightarrow 7 \rightarrow 28$

(b) $43 \rightarrow 38 \rightarrow 152$

(c) $7.5 \rightarrow 2.5 \rightarrow 10$

Use a **lattice** if you need to



Determine the **functions** in 1/2 step **function machines** form a list of **inputs** and **outputs**

21a

22a

Use **inverse operations** to find the input of **function machines**



22a Use **inverse operations** to find the input of **function machines**

(a) Work out the input if the output is 18

input $+5$ output

13 -5 18

Subtract 5 is the **inverse** of add 5

input = 13

(b) Work out the input if the output is 12

input -7 $\times 3$ output

11 $+7$ 4 $\div 3$ 12

Add 7 is the **inverse** of subtract 7

Divide by 3 is the **inverse** of multiply by 3

input = 11

10. Functions 2



Simplify **expressions** by applying standard **algebraic notation**

25a

25a Simplify **expressions** by applying standard **algebraic notation**

Simplify these expressions so they are in good algebra

Bad Algebra	Good Algebra
$g7$	$7g$
$9 \times g$	$9g$
$g \div 5$	$\frac{g}{5}$
$1g$	g

The number will always come in front of the letter when they are multiplied like this.

We do not need to include the $\times$ between a number and letter.

If you have 1 lot of something you do not need to include the 1.

We write divisions as fractions.

11. Functions 3



Substitute positive whole numbers into simple **expressions** or **formulae** and **evaluate**

27a

27a Substitute positive whole numbers into simple **expressions** or **formulae** and **evaluate**

Given that $p = 5$, $q = 4$ and $r = 2$
 Work out the value of $pq - 5r$

$$pq - 5r = 5 \times 4 - 5 \times 2$$

$$= 20 - 10$$

$$= 10$$

Replace each letter with the number given in the question. Then use BIDMAS to work out the answer.

$P = 2w + 2l$
 Calculate P when $w = 6$ and $l = 3$

$$P = 2 \times 6 + 2 \times 3$$

$$= 12 + 6$$

$$= 18$$

37a

Substitute positive and negative, whole or decimal values into **expressions** or **formulae** and **evaluate**



Using the **nth term rule** of a **sequence** to find a given term

44a

44a Using the **nth term rule** of a **sequence** to find a given term

The **nth term** of a sequence is $4n - 3$. Work out the **15th term** of this sequence.

$$4 \times n - 3$$

$$= 4 \times 15 - 3$$

$$= 60 - 3 = 57$$

Substitute in your value for n and evaluate

The **nth term** of a sequence is $2n^2 + 5$. Work out the **6th term** of this sequence.

$$2 \times n^2 + 5$$

$$= 2 \times 6^2 + 5$$

$$= 2 \times 36 + 5$$

$$= 72 + 5 = 77$$

Substitute in your value for n and evaluate

12. Angle Rules 1

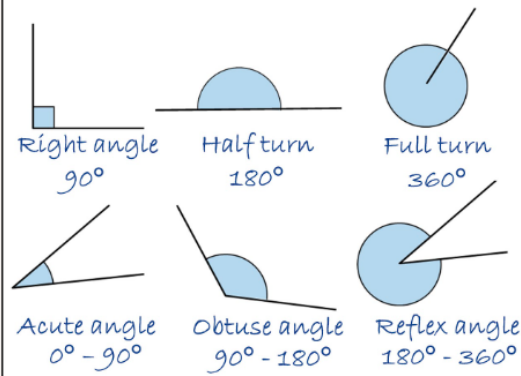


Know there are 360° in a full turn (180° = half turn; 90° = quarter turn) and recognising types of angle: **acute**, **obtuse**, **reflex** or **right**.

13s

13s Know there are 360° in a full turn (180° = half turn; 90° = quarter turn) and recognising types of angle: **acute**, **obtuse**, **reflex** or **right**.

What types of angles are these and how big are they?

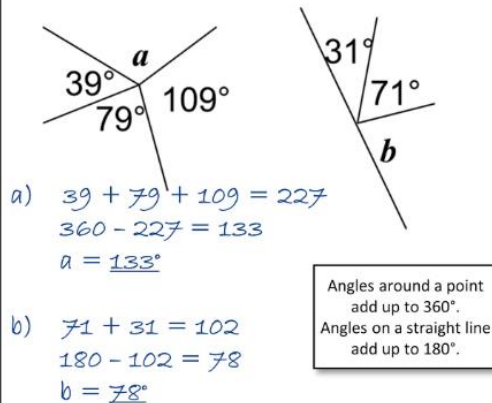


26s Use the sum of **angles at a point** or **on a line** or **vertically opposite** to calculate angles



26s Use the sum of **angles at a point** or **on a line** or **vertically opposite** to calculate angles

Calculate the value of a and b .



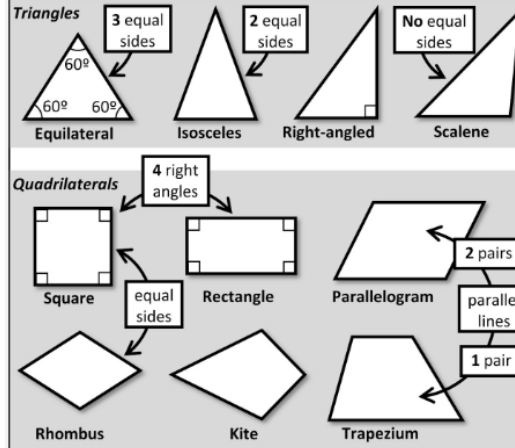
13. Shapes and Angle rules 2



Know mathematical names for **2D shapes** including special **quadrilaterals** and **triangles**

17s

17s Know mathematical names for **2D shapes** including special **quadrilaterals** and **triangles**

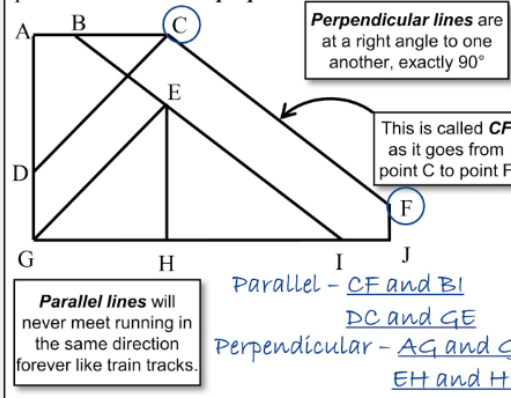


16s Recognise and label **parallel** and **perpendicular** lines



16s Recognise and label **parallel** and **perpendicular** lines

Name two pairs of lines that are **parallel** and two pairs of lines that are **perpendicular**.



14. Angle Rules 3

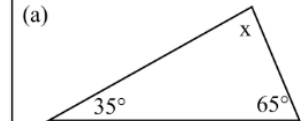


Know and use the sum of **angles in a triangle** or **quadrilateral** to work out angles

32s

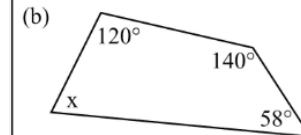
32s Know and use the sum of **angles in a triangle** or **quadrilateral** to work out angles

Calculate the missing angles



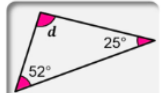
$$x = 180 - (35 + 65)$$

$$180 - 100 = 80$$



$$x = 360 - (120 + 140 + 58)$$

$$360 - 318 = 42$$



angles in a **triangle** add to 180°



angles in a **quadrilateral** add to 360°

Know and use the sum of angles in **polygons** and find angles in diagrams including **regular polygons**

61s

61s Know and use the sum of angles in **polygons** and find angles in diagrams including **regular polygons**

ABCDEF GHI is a regular nonagon.

Work out the size of angle BCH

Nonagon exterior angle

$$360 \div 9 = 40^\circ$$

Nonagon Interior angle

$$180 - 40 = 140^\circ$$

Pentagon sum of interior angles

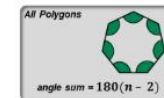
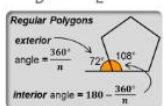
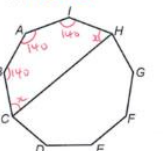
$$180 \times (5 - 2) = 540^\circ$$

$$140^\circ + 140^\circ + 140^\circ + x + x = 540^\circ$$

$$420^\circ + 2x = 540^\circ$$

$$2x = 120^\circ$$

$$x = 60^\circ$$



8. What is storytelling?

Storytelling has been around for at least 30,000 years.



Stories have been told by **pictures**, **word of mouth** and since 3400 BC **written** stories.



Stories have been made to **relive moments**, **teach** others about **morals** and to **entertain**.

This half term you will perform fairy tales and some Aesop's fables – which you may have heard before!



9. Telling of the tales and fables

To tell stories well, you need to become the characters clearly.

Characterisation – Becoming a character using physical and vocal acting skills.

You may decide to use narration to help you tell the story alongside your characters.

Narration – Telling the story to the audience.



Challenge!

What are the key features of a character that you will need to show?

10. Working in groups



Listening – Being ready to hear someone or something.

Working with others means a **team** needs **different roles** to be filled.

Leader – The person who is most comfortable starting ideas off and ensuring that everyone is listened to.

Builder – Someone who can listen to others and help them make the scene.

Challenger – Can help the group by making sure the correct skills are being used to make the performance.

Summariser – Able to listen to everyone's ideas, and make sure the rest of the group understand the next step.



11. Drama techniques

In Drama we are constantly learning new techniques that **we can use all the way to year 11.**

Storytelling – Telling a story.

Multi-role – Playing more than one character in a performance.



12. Drama techniques

Flashback – Going into the past, from the scene. And then going back to the present scene.

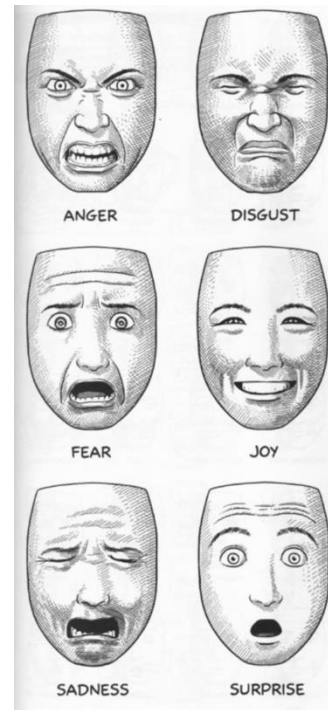
Flashforward – Going into the future, from the scene. And then going back to the present scene.

Talking to the audience – remaining in character, you look directly at the audience and talk to them.

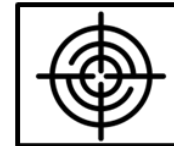


13. Acting skills

Reaction – Speaking and moving in response/because of something that has happened.

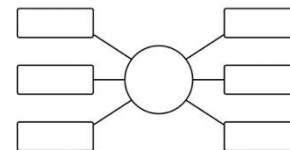


Mime – Acting with something that is not there.



Challenge!

Create a spider diagram of acting skills. Can you define them all?



14. Performing a story

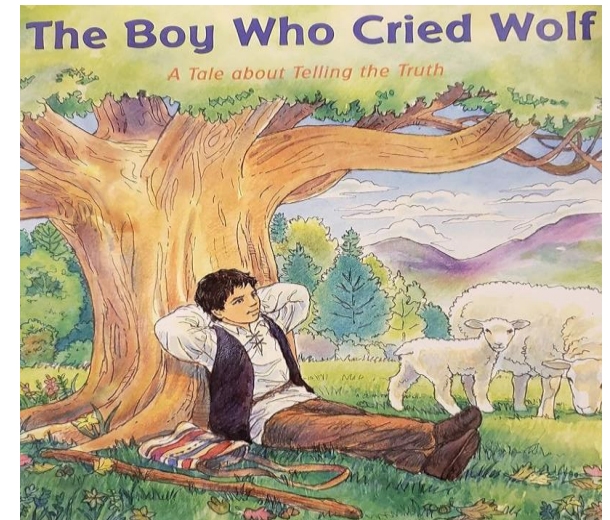
This half-term you have been **performing stories** that have a **message at the end.**

Moral – Knowing what is right and wrong.

Aesop's fables have morals for the **audience to learn from.**

In Drama your aim is to:

- Make the audience think
- Entertain your audience
- Help the audience understand the story



Please complete the following tasks each week using your ePortfolio booklet.

Task 1 – Complete your keyword definitions for the words listed in lesson 1 of the ePortfolio. (Use the class presentations to support you)

Task 2 – Look at your keywords ready for a spelling test next lesson.

Task 3 – Ensure any worksheets you started in class this week are complete (use the class presentation to support you).

Task 4 – Complete any purple pen improvements you have been advised to do using the purple font. (Use the Google classroom to support you).

8. Email scams

Keywords

Cybercrime
Phishing
Trojan Horse
Malware
Virus-generated email
SPAM filter

9. Computer misuse

Keywords

Computer misuse act (1990)
Hacker
Logic bomb
Ransomware

10. Protecting personal data

Keywords

Personal Data
GDPR
Identity theft
Data harvesting
Shoulder surfing

11. Copyright

Keywords

Copyright
Creative work
Copyright infringement
Plagiarism

12. Health and Safety

Keywords

Poor posture
RSI
TATT
Blue light syndrome

13 + 14. Task completion

Task 1 – Ensure any worksheets you started in class this week are complete (use the class presentation to support you).

Task 2 – Complete any purple pen improvements you have been advised to do using the purple font. (Use the Google classroom to support you).

Task 3 – Revise the material from this term ready for an end of topic test

8. What Forces Do

What three things can forces do to objects?	Change their shape, change their speed, change their direction
What equipment is used to measure forces?	A Newtonmeter
Define "force"	A push or a pull that acts on an object due to the interaction with another object
Define "contact force"	A force that acts when objects are physically touching
Define "non-contact force"	A force that acts when objects are physically separated
Name five examples of contact forces	Friction, air resistance, tension, compression, normal contact force
Name three examples of non-contact forces	Gravitational force, electrostatic force, magnetic force



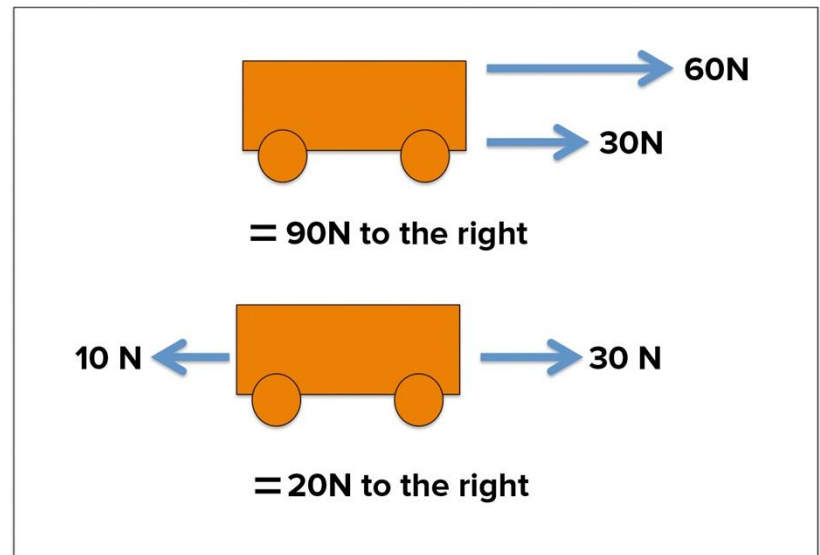
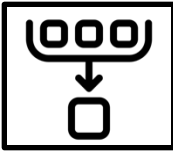
10. Drag

Define "friction"	Force opposing motion which is caused by the interaction of surfaces moving over each other
Define "drag"	Friction force when one object is a liquid or a gas
Define "air resistance"	Friction force acting between an object and air particles
State two examples of situations where it is useful to reduce friction	Sports, vehicles
State two ways of reducing friction or drag	Make objects streamlined, use lubricants
Which pathway do forces cause a transfer of energy?	Mechanically

9. Resultant Forces

Summarise the two images below.

Draw a new one showing a resultant force of 0 N



Challenge!

Research Isaac Newton and write about the contributions he made to physics and our understanding of forces.

11. Chemical and Physical Change

Chemical	Physical
Before Wood log 	Before Whole lemon 
During Log getting burned 	During Lemon getting sliced 
After (new substance) Pile of ash 	After (same substance) Slices of lemon 

Chemical changes create new substances and are not reversible. Physical changes do not create new substances and can often be reversed.



13&14. The Periodic Table

The periodic table is organized into **groups** and **periods**.

Groups are columns going down
Periods are rows going across



Elements in the same group have similar properties to each other

Atoms of elements get bigger as you go across a period

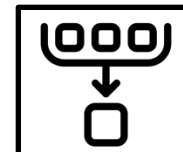
12. Atoms, Elements and Compounds

Atom – an individual piece of matter

Element – just one type of atom

Compound – more than one type of atom bonded together

Mixture – two or more elements or compounds mixed together.



 ATOM



MOLECULE



COMPOUND



MIXTURE

[illegible]

* The Lanthanides (atomic numbers 58 – 71) and the Actinides (atomic numbers 90 – 103) have been omitted. Relative atomic masses for **Cu** and **Cl** have not been rounded to the nearest whole number.

8. Types (Methods) of Training

Continuous training – steady-state low- moderate intensity.

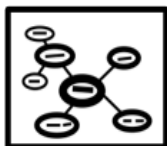
Example Athletes– Paula Radcliffe/Mo Farah (long distance runners).

Fartlek training – continuous steady state aerobic exercise with random higher intensity periods.

Example Athletes– Lucy Bronze/Ollie Watkins (footballers).

Interval Training – periods of exercise followed by periods of rest used by both aerobic and anaerobic performers.

Example Athletes – Candace Parker/ LeBron James (Basketballers).



9. Types (Methods) of Training

Circuit Training – a series of exercise stations arranged in a specific order to usually alternate muscle groups.

Example Athlete Katarina Thompson-Johnson (heptathlon)/Raheem Sterling (footballer).

Weight Training – a series of exercises organised into repetitions with an intensity and recovery time specific to the individual.

Example Athlete Dina Asher-Smith/ (100m)/ Anthony Joshua (Boxer).

High Altitude Training - 2000m+ above sea level
Less oxygen so body has to work harder.

Body compensates by creating more red blood cells
Suits endurance athletes
Example Athletes – Paula Radcliffe/Mo Farrah (Marathon runners)



10. Types (Methods) of Training

Plyometrics – a series of explosive exercises to improve the speed at which a muscle contracts. Used by performers who sprint, jump or throw .
Example Athletes – Candace Parker ((Basketballers))/ Philips Idowu (Triple Jump).

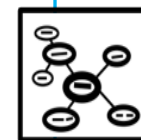
High Intensity interval training - (HIIT) – repeated periods of high-intensity exercise followed by varied recovery times.
Example Athletes– Lucy Bronze/Ollie Watkins (footballers).

Training Seasons

PRE-SEASON (PREPARATION)
Build fitness, aerobic. Skills needed for season.

IN-SEASON (MAINTAINING)
Keep fitness levels without increasing the risk of injury.

POST-SEASON (TRANSITION)
Rest and recover, light aerobic training to not drop too far.



11. Types of practice

Fixed Practice:

This is a repetitive practice, practicing a skill the same way every time.

Varied Practice:

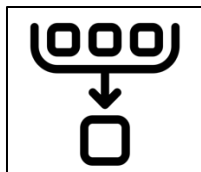
This is when you change the practice. You repeat the skill but in various situations.

Whole Practice:

Performing the entire skill

Part Practice

The skill is broken down into its component parts and just one part is practiced.



12. Types of Skill

Simple

Requires little coordination.
Uses fewer body parts.
Requires minimal thinking.
Players make minimal decisions.

Complex

Requires lots of coordination.
Uses several body parts together.
Many decisions to be made.
Generally specific to a sport.

Closed

Skills performed in an environment that stays the same.
Environment has little impact on the skill.
Player has high levels of control.

Open

Performance of these skills is adapted because of the environment.
Player has less control
Influenced by weather, opponents time restraints and space available.

13. Health

Health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity.

How sport gives
Physical Health Benefits:

- improves heart function
- improves efficiency of the body systems
- reduces the risk of some illness
- able to do everyday tasks
 - to avoid obesity.

Mental Health benefits:



14. Mental & Social health

How sport gives
Mental Health benefits:

- Helps reduce levels of stress
- Can result in the release of serotonin (feel-good hormone)
- Able to control emotions

How sport gives
Social benefits:

- Opportunities to socialise/make friends
 - Cooperation
 - Teamwork
- Have essential human Needs



7. Introduction to R.P.E.

Religion

We will study the beliefs of lots of different people from around the world. There are said to be around 5000 different religions in the world.

Ethics

Ethics is about asking questions about what is thought to be right and wrong,

- Is it right to fight in a war?
- Is it right to eat meat?
- Some people think yes, and some people think no!

Philosophy

This means asking big questions that have no clear answer.

An example of a philosophical question is; Is there a God?

Do we all have a soul?



Challenge!

Explain why Christianity is the world's largest religion?

8. What is Philosophy?

A philosopher tries to answer big ultimate questions!

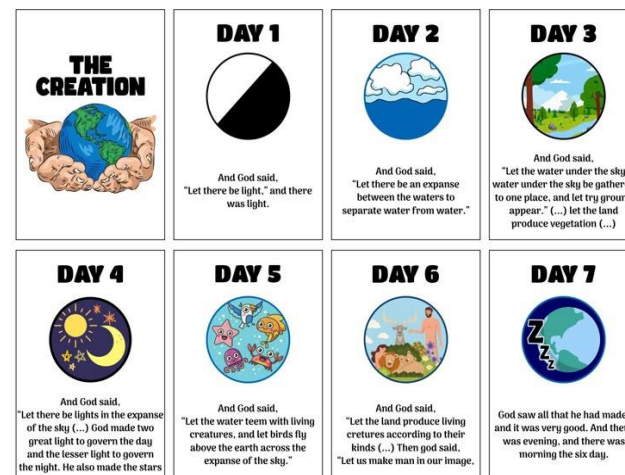
An ultimate question is a question that asks a fundamental thing of life, the universe, God or the nature of reality. An Ultimate Question is a question that does not have an answer or is when people cannot agree what the answer might be.

- Does God exist and if so, what is he/she it like?
- Where did the world come from?
- Where did human beings come from?
- What is the purpose of our lives?
- What happens when we die?
- Do human beings have a soul? What about animals?
- Why is there evil in the world?
- Do miracles happen? Do you have examples?
- Does it matter how we treat people? Why?/ Why not



9. Story of Creation

The setting is described. Christians see the whole of the Bible as part of God's plan of salvation. The opening chapter plays a big part in setting the scene. Genesis 1:1-2:3, sets the scene for the Big Story of the Bible. God has such amazing plans for everything. He created the whole world and everything in it. Christians have different views on how Genesis should be interpreted. Is the Genesis story a literal translation of how God created the world? Or was it written in the genre of a poem, where the reader is focused on what the verses reveal about the nature and character of God and the place of humanity within His creation



10: The Fall

Step 2 in the Big Story, the story of the Fall (Genesis 2:15- 3:24) sees Adam and Eve's sin separate them from God and the garden. There is disagreement among Christians as to whether the Fall is a historical event or a 'truth-carrying' mythical account. Despite this, the story explains the flaws in human nature and the problems that result. The story starts with a picture of Eden, Paradise, the garden in which there is harmony and trust between the Creator and Creation, between humans themselves, and between humans and the natural world.



11: What is the purpose of life?

The Big Story continues by revealing the effect of following or rejecting God. The story of David and Bathsheba in 2 Samuel 11 is dramatic. Of all the people you would expect to follow God, it would be David, the King, as he had experienced the faithfulness of God over many years, personally in his struggles with his enemies and as leader of God's chosen people. For Christians, this story shows that everyone is vulnerable to temptation, and that sin can destroy. David's separation from God is huge, and yet God never leaves him. It is David who separates himself from God through sin (breaking numerous commandments), yet God is still there reaching out to him. Christians believe that no matter how much we run away from God, He still loves us and still wants us to be a part of his kingdom.



12. Covenants within the Bible

The idea that God is in charge of the Big Story is crucial to a Christian reading of the Old Testament. The inevitable tendency of human beings to stray away from God makes God's task more complex than if he stepped in and made people behave. But the Bible makes it clear that God made a covenant with the Israelites, binding them together with certain expectations, and God always keeps His promises. God shows his side of the bargain by rescuing the Israelites from death & slavery, bringing them out of Egypt.

Challenge!

Explain how God shows power in the Old testament?



13+14. Does God exist?

Atheist

Someone who does not believe in God.

Agnostic

Someone who believes we cannot know if God exists.

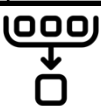
Theist/believer

Someone who does believe in God.



8. Keywords spelling/definition test.

C.A.D	C.A.D stands for Computer Aided Design , this means that a design is drawn in either 2D or 3D using a computer program such as 2D design, AutoCAD, Onshape or any other software that allows you to create a drawing using a computer.
C.A.M	C.A.M stands for Computer Aided Manufacture . Computer aided manufacture (CAM) involves using computers to control machines to produce 3D parts or products. By using CAM, designs can be created using CAM machines such as laser cutters, 3D printers and milling machines.
C.N.C	Computer Numerical Control (CNC) machining is a manufacturing process in which pre-programmed computer software tells computer operated machinery what to do and what to cut or engrave. This means that the computer does all the work rather than a person. This can save time and money but takes skilled users to write the computer program. The process can be used to control a range of complex machinery, from grinders and lathes to mills and CNC routers.



9. Advantages and disadvantages of C.A.D



Advantages of CAD	Disadvantages of CAD
Ideas can be drawn and developed quickly	Expensive to set up
Designs can be viewed from all angles and with a range of materials	Needs a skilled workforce
Some testing and consumer feedback can be done before costly production takes place	Difficult to keep up with constantly changing technology
It becomes easier to design and test a range of ideas	Computers can fail

10. Advantages and disadvantages of C.A.M



Advantages of CAM	Disadvantages of CAM
Fast and accurate production	Expensive to set up
Machines can run constantly on repetitive tasks	Needs a skilled workforce of engineers
Good for producing on a mass/flow production line	Downtime required for maintenance
Less material wastage	Computers and machines can fail
Machines can run 24/7	Errors can happen if they are not monitored.

Challenge!

Nasa wants to use 3D printers to design and make houses on other planets – Design a house that could be 3D printer for families to live in on the moon. Colour and label your design.

11. The laser Cutter

Laser Cutter



A laser cutter is a high-precision CAM machine that cuts a wide variety of materials using an extremely powerful laser beam directed onto the material using angled mirrors. The power setting can be varied - if the power is reduced or the speed is too high, then the laser beam will not cut completely through the material and will engrave it instead.

12. The 3D Printer

3D Printer



3D printing, also known as additive manufacturing, is a method of creating a three-dimensional object which is made by adding layer-up on-layer of a specific material such as plastic. (PLA) using a computer created design. (CAD)



13. The CNC router

CNC Router

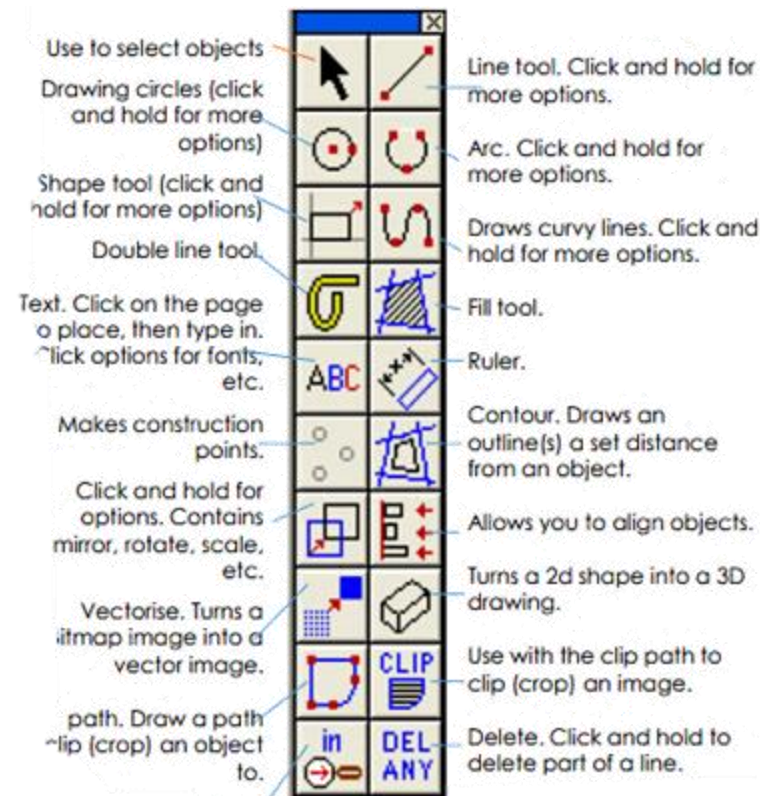


A CNC router is a type of computer-controlled machine created for milling, drilling and cutting materials. The main functions of a CNC router are to cut, engrave and carve objects out of a work piece, such as Wood, plastic or metal.

14. 2D Design – Computer Aided Design Software.

The software that you will use to design and make your work in your Computer Aided Design and Manufacture lessons will be 2D Design (made by Techsoft)
This is an easy-to-use software that can produce drawings that can be cut using CAM equipment.

These are the drawing tools that will help you draw your product.



Challenge!

Research 5 things a 3D printer can make.

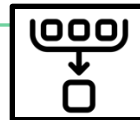


8. Keywords spelling/definition test.

Theme	The topic/film/book or series that you will use for your chosen board game.
Die cutter	A piece of machinery that can cut multiple copies of a piece of packaging. Like a cookie cutter.
Mood board	A page that shows colour/ images/ fonts/ logos etc of your chosen theme
Race and chase game	a style of board game where the winner is the first to the finish line.
Assemble	To put something together such as counters or packaging.
Net	A flattened piece of packaging that shows the cut lines, fold line and tabs.
Instructions	The step-by-step details on how to play the game.
Manufacture	How the product is made or put together to create the finished product.



9. Facts about Logos



A logo is a graphic mark, emblem, or symbol used to aid and promote public identification and recognition. It may be of an abstract or figurative design or include the text of the name it represents as in a wordmark.



These logos are examples of successful logos, they are clear, feature no more than 3 colours and stand out. You can recognise the brand without seeing the name of the brand. This makes them universal and can be understood across the world without needing to change the names into different languages

Challenge!

Design a new logo for Design and Technology, think about the symbols and the colours that you will use.

10. Facts about Fonts

The word '**font**' refers to a set of printable or displayable typography or text characters in a specific style and size. Font styles are used in both print and digital text. It is the style of writing that you use either by hand or using a computer.

Font Types

Serif. Traditional, have feet.	Sans Serif. Modern, feet free.
Script. Cursive, a bit more decorative.	DISPLAY Decorative, good as a design focal point.

The most recognizable fonts used today on computers are

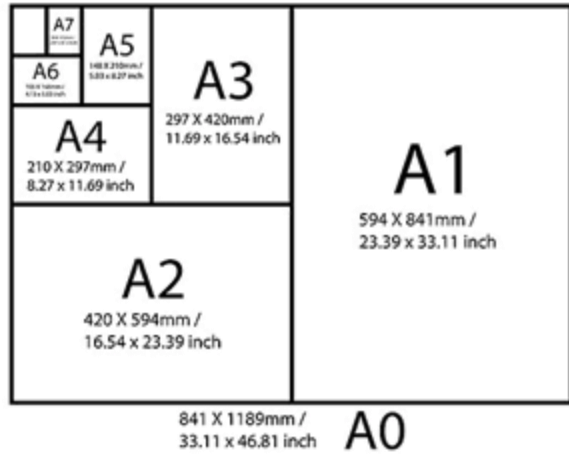
Arial	Tahoma
Times New Roman	Helvetica
Stylus	ONYX
Gothic	Bowie
Courier	Nyala
Script	broadway
	CASTELLAR





11. Paper and Board Stock sizes and weights

Paper and board is available in sizes from A0 (biggest) to A7 (smallest). The most common size is A4. Each size is half the one before, e.g. A4 is half the size of A3.



They are also sold by weight: GSM – grams per square metre. Card thickness or calliper is traditionally measured in Microns. 1000 Microns = 1mm, so the higher the value, the thicker the card or paper



12. What is a Net?

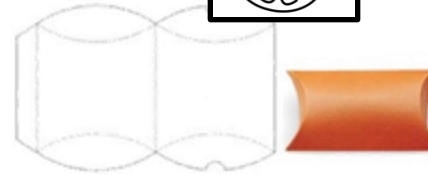
A NET is a two-dimensional (2-D) shape, which when scored, folded and glued together, makes a three-dimensional (3-D) package, box or carton.

NETs must be made ACURATELY so that all the sides fit together perfectly. The design must be printed the correct way up so that when the box is constructed, everything is the right way up.

A standard set of line types are used to draw NETs, these help the nets be cut and scored and folded in the correct places.. Nets are sometimes also called DEVELOPMENT nets

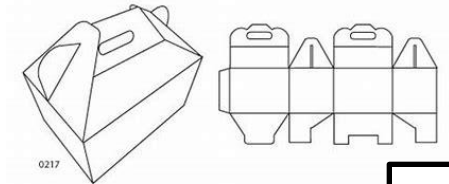
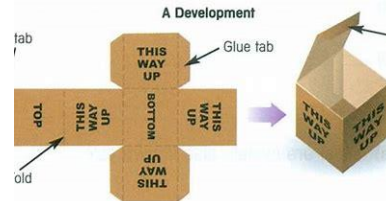


PILLOW PACK



13. Examples of Nets

PYRAMID BOX

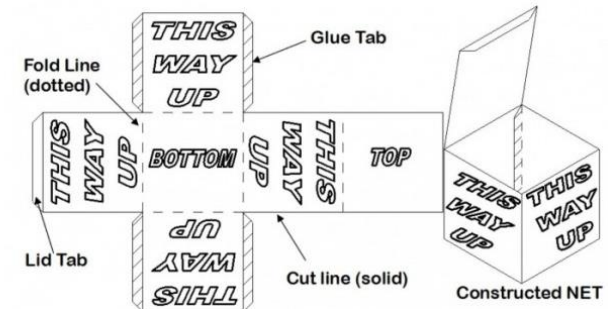


14. Net construction lines

A NET needs different types of lines to turn the 2D shape into a 3D shape.

————— Cut lines are seen as solid lines

- - - - - Fold lines are seen as dashed lines



8. Key vocabulary and definitions



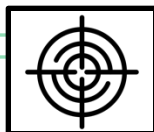
Pine: an evergreen coniferous tree which has clusters of long needle-shaped leaves. Many kinds are grown for the soft timber, which is widely used for furniture

Tenon Saw: A Tenon saw has a relatively short blade with a reinforced back providing stability. It has hard point teeth and creates a fine finish so is ideal for carpentry as it makes a straight, precise cut

Scroll saw: A scroll saw is a small electric saw used to cut intricate curves in wood, metal, or other materials.

Try square: A try square or try-square is a woodworking tool used for marking and checking 90° angles on pieces of wood.

Dowel: A dowel is a cylindrical shape made of wood, plastic, or metal. In its original manufactured form, a dowel is long and called a dowel rod



9. Product analysis

When creating ideas for a new product a designer will look at similar products that are already on the market. This allows them to identify 'gaps in the market' and features that work/don't work.

To help us focus our analysis we use an acronym called ACCESSFM. Each letter stands for a specific focus area.

A: Aesthetics – This is where you would look closely at the way the product looks, thinking about areas you consider successful and areas you would change.

C: Cost – How much is the product being sold for? Is it a suitable price?

C: Client – All products are created with a specific user in mind – has the designer been successful?

E: Environment – Has the product been made with the environment in mind? Can it be repaired? Recycled? Reused? Etc.

S: Size - How big in the product? Is this size suitable?

S: Safety – Is the product safe to use?

F: Function – What has the product been designed to do? Does it do this successfully?

M: Materials – What has the product been made from? Is it a suitable material? Are there alternatives that would be better?

10. Health and safety



Everybody is responsible for health and safety.

It is your job to make sure you are following the rules and working as safely as you can. This protects both yourself and others around you.

The following rules must be followed in the workshop:

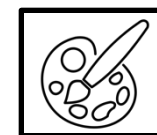
1. Always listen carefully to instructions
2. Walk calmly around the room
3. Do not shout or raise your voice, a quiet room is a safe room
4. Do not touch any equipment you have not been given permission to use
5. Keep your work area tidy
6. Keep bags on the shelf
7. Hang coats and blazers on pegs
8. Pile stools up out of the way
9. Always wear long hair up when completing practical work
10. Always wear the correct PPE – apron, safety glasses

11. Annotation

definition: a short explanation or note added to a text or image.

When we design a product, the drawings alone cannot give enough information for others to understand our ideas. It is essential we explain them through annotation.

The purpose of annotation is not to put into words what the viewer can see, but a method used to give more information about the idea.



The robot has a green face



The robot has a green face because it eats the leaves of the matcha plant. The strong green dye contained within makes his face turn green.

12. Timber theory



Softwood is a term used to describe timber sourced from coniferous or needle-leaved trees. Hardwood is sourced from deciduous and evergreen broad-leaved trees.

CEDAR

The most common type of cedar is western red. As this name implies, it is pinky, red in colour. It is relatively soft but straight grained and is mostly used for outdoors for furniture, deck handrails, wall cladding and window frames because it resists rotting in moist environments. Relatively inexpensive.

ASH

Ash is a white-to-pale brown-coloured wood with a straight, attractive grain. Easy to work, it is commonly used in furniture production where it is a good substitute for white oak.

OAK

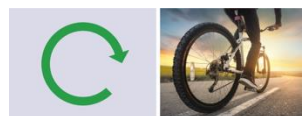
Used for centuries throughout Europe, particularly in England, oak is still one of the most sought-after woods for furniture. Available in red and white, the latter is preferred because it has a more attractive figure than American red oak and is resistant to moisture, which allows it to be used for outdoor furniture. English oak is regarded as superior to American white oak.

13. Type of motion

Linear motion moves something in a straight line, eg a train moving down a track:



Rotary motion is where something moves around an axis or pivot point, eg a wheel:



Reciprocating motion has a repeated up and down motion or back-and-forth motion, eg a piston or pump:



Oscillating motion has a curved backwards and forwards movement that swings on an axis or pivot point, eg a swing or a clock pendulum:



14. Pine

Advantages of Pine Disadvantages of Pine

Relatively inexpensive compared to other types of wood

Common Lumber often has Defects

Does Not Require Re-enforcement

Can contain knots and other imperfections that may affect its appearance and structural integrity

Lightweight and easy to work with

Susceptible to Scratches and Dents

Resists Shrinking & Swelling

Can be easily damaged

Good Elasticity

Not as durable as hardwoods

Attractive Grain Options

Prone to warping and twisting if not properly dried and cured

Abundant and readily available

Susceptible to insect damage and rot if not treated or maintained properly

Takes paint and stain well

May yellow over time if exposed to sunlight.

Has a distinctive grain pattern



8. Equipment you will use

Needle:

A tool used for hand-sewing, it is a long slender tool with a pointed tip at one end and a hole (or eye) to hold the sewing thread.



Needle threader:

Used to help you to thread the needle. Lots of different types but they all work the same way. The threader is pushed through the eye of the needle first then the thread is attached to a hook or wire loop. These are then pulled back through the eye of the needle pulling the thread with it.



9. Materials and techniques

Thread:

A fine length of twisted fibres used to join fabric together. Comes in different colours. Need to use a needle threader to pass the thread through the eye of the needle.

Embroidery:

Embroidery is the craft of decorating fabric or other materials using a needle to apply thread or yarn.



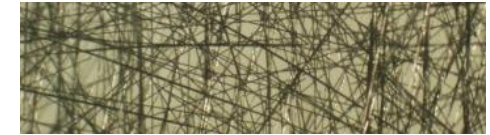
Applique:

Appliqué is a decorative technique in which pieces of fabric in different shapes and patterns are sewn onto a larger piece to form a picture or pattern.



10. Fun Felt Facts!

Felt is the oldest known fabric and is known as a non-woven fabric. Fibres run in all directions.



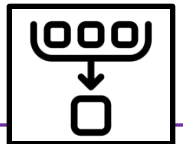
Most types of fleece, such as those taken from the alpaca or the Merino sheep, can be put through the wet felting process.

You may also use mohair (goat), angora (rabbit), or hair from rodents such as beavers and muskrats.

Felt comes in a wide range of colours. It is easy to cut with scissors.

Felt was involved in the phrase 'As Mad as a Hatter' because mercury used in the hat making process caused insanity. Mercury was banned in 1941.

Modern felts are often synthetic made using petroleum-based acrylic or acrylonitrile or wood pulp-based rayon.



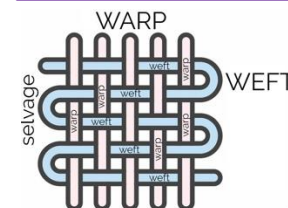
11. Woven fabrics

Woven fabrics are made up of Warp and weft threads.

Warp threads, also known as surface threads or ends, are stretched vertically on the loom and are therefore made of stronger, coarser fibres than the weft threads. The term comes from the Old Norse word "varp", meaning "the cast of a net".

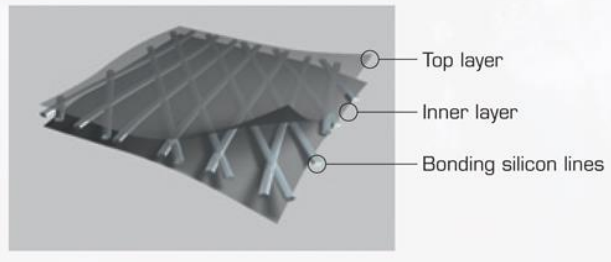
Weft, are the threads woven horizontally. The threads go over and under the warp. They usually run from selvage to selvage.

Selvage, is a "self-finished" edge of a piece of fabric which keeps it from unravelling and fraying.



12. Bonded fabrics

Bonded fabrics are made of two or more already-constructed fabrics held together by wet adhesives or thin polyurethane foam.



Bonding gives stability to lightweight, loosely woven fabrics.

Thanks to the bonding process by which this material is obtained, the **adhesion between the components** is very resistant, avoiding tears and breakages.

Bonded fabrics can mix textiles with other materials like rubber, plastic, or metal.

They are also used in many industrial applications such as automotive components, insulation products, and packaging.



13. The running stitch



The Running Stitch, also referred to as Straight Stitch, is one of the basic hand sewing and embroidery technique on which most other forms of stitching and embroidery are based.

The length of each stitch may vary depending on the purpose it is used for, but generally the thread is more visible on the right side (Front) of the fabric compared to the wrong side (Back).

It is one of the most popular stitches used for a wide range of purposes starting from garment making to embroidering various articles.

It is also used for appliqué making

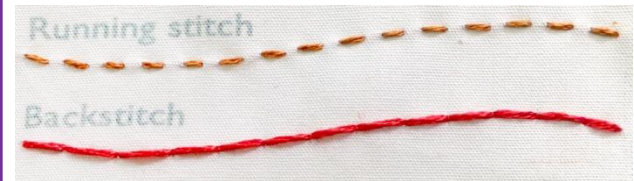


14. The back stitch

Back Stitch is made by taking the thread backward, rather than the conventional forward motion, and thus the name.

It can take curves well.

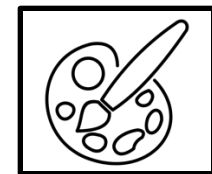
There are no spaces between each stitch, giving it a continuous appearance.



Like the **Running Stitch**, the Back Stitch also lays a foundation for many variations over it.

It is much stronger than the regular Running Stitch, though it uses more thread.

The Back Stitch looks beautiful when it uses small stitches and maintains consistency in the lengths.



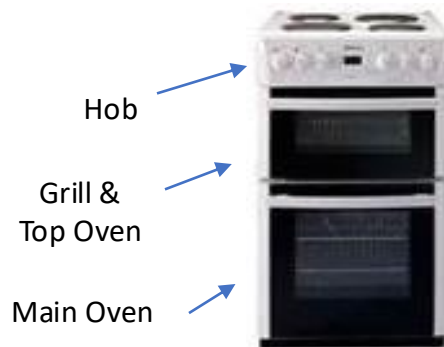
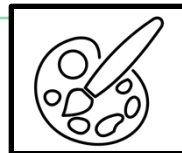
8. Key Words



Eatwell Guide – the guide which helps us eat the right sort of foods in the correct quantities.

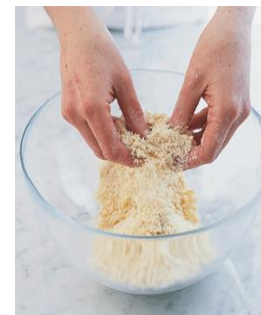
Consistency – how thick or runny a sauce is in cooking (add liquid to make it runnier, boil longer or add something like corn-flour to thicken)

10. Parts of a cooker



12. The Rubbing-In Method

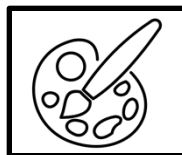
We used this method for the topping on our Fruit Crumble AND for making Scones. We will also use it in Y8 to make pastry.



Cover butter / margarine in flour - rub it between fingers and thumbs until it's 'breadcrumb' sized pieces.



9. Knife grips



Bridge hold



Claw grip

Use the correct coloured chopping board. Hold the ingredient flat against the board so it does not wobble. Cut with either the claw or bridge grip carefully. Push slightly forward and down with the knife.

11. 4 C's for Food Hygiene

Avoiding food Poisoning – it is important to follow the 4C's of food hygiene.

Raw meat is a **high-risk food** – this means it is more likely to give you food poisoning. This is because all living things contain bacteria that can be harmful in large numbers

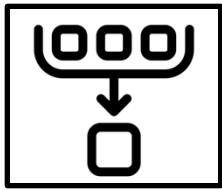
Clean: Wash your hands before cooking, make sure worktops and equipment are clean.

Cook: Cook food properly to kill germs. **Chill:** Some foods (like meat, fish and dairy) need to be kept in the fridge to slow the growth of bacteria.

Cross-contamination: Keep raw foods away from cooked foods otherwise bacteria will spread. Use separate chopping boards (**RED** for raw meat, **WHITE** for everything else) and equipment and wash them well after use.



13. The Eatwell Guide



The Eatwell Guide was produced by scientists for the UK government to help explain to the public what a healthy diet should be. You do not need to achieve this balance with every meal but try to get the balance right over a day or even a week.

Fruit & Vegetables: should make up just over a third of the food we eat each day. Aim for 5 portions & a wide variety. Choose from fresh, frozen, tinned, dried or juiced. Fruit juice and smoothies should be limited to 150ml a day. Good source of vitamins, minerals and fibre.

Starchy Carbohydrates: should make up a third of the food we eat. Choose higher fibre or wholegrain varieties, such as wholewheat pasta & bread, brown rice, or leave the skins on potatoes. Good source of energy and the main source of a range of nutrients in our diet.

Protein: Pulses, such as beans, peas and lentils, are good alternatives to meat because they're low in fat and they're a good source of fibre and protein, too. Choose lean cuts of meat and eat less red and processed meat (bacon, ham and sausages). Aim for at least 2 portions of fish every week, 1 of which should be oily (salmon, sardines or mackerel).

Dairy & alternatives: Good sources of protein, vitamins & calcium, for bones. Choose lower-fat and lower-sugar where possible.

Fats: High in energy and should be eaten in small amounts, unsaturated are healthier.

14. Utensils and Equipment



Sieve – to sieve flour



Saucepan – to cook on the hob



weighing scales



palette knife



baking tray

8) What is the Bayeux tapestry?

The Bayeux tapestry from the 11th century (1000s) that tells us the story of the Battle of Hastings.

It also tells us why **William of Normandy** believed he should be the King of England.

It is thought to have been made on the orders of **Odo**, the bishop of Bayeux (France) who was William's half-brother.

Why was there a crisis in 1066?

The King of England, Edward the Confessor, died in January 1066. He had no **heir**, and it was not clear *who* should be the next King of England.

It was up to the **Witan** to decide who should be the next King of England.



9) Who should be King in 1066?

Harold Godwinson

☺ Was popular with the English people.

☺ Support of the Witan, including the church and important English Earls.

☺ Promised the throne on Edward's deathbed. Seen as words from God in 1066.

☹ Did he break a promise to William?

William of Normandy

☺ Supposedly had the support of Harold Godwinson, who swore an oath to support William's claim in 1064.

☹ Was William *really* promised the throne?



10) Key Terms:

Heir: The person who is next in line to be king. (Usually the eldest son).

Monarch: A king or a queen.

Oath: A promise that must not be broken.

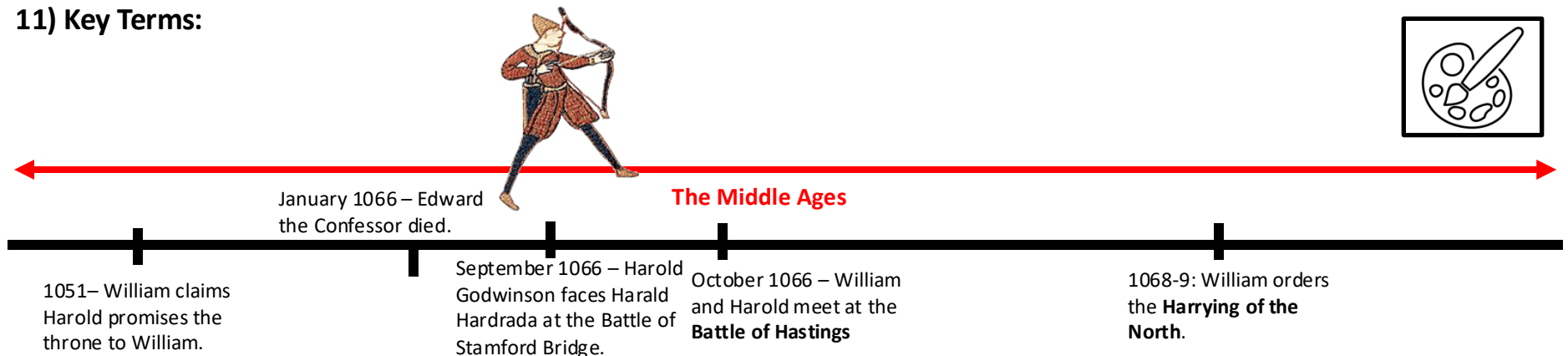
Propaganda: Information designed to change thought.

Tapestry: A heavy cloth with pictures that is hung on a wall.

Witan: A group of important people who advise the King.



11) Key Terms:



12) Why did William win the Battle of Hastings?



1. Luck:

The wind changed direction at just the right time for William. If it had changed later, he would have had to delay his invasion until the following year. Harald Hardrada's army arrived in England just before William's invasion. This meant that Harold's army had to fight two battles in the space of a month. This meant Godwinson lost valuable troops and were exhausted after fighting the Vikings.

2. Armies:

William's army had **cavalry** (soldiers on horseback) and archers. They were highly trained and experienced in battle. Harold's army was made up of **peasants** (poor farmers) that had been recruited on his way back from Stamford Bridge.

3. Tactics:

William used the *feigned retreat* to break Harold's shield wall at the top of the hill. This allowed William to defeat the English army. William had practiced this during battles in France and had worked before.

4. Leadership:

William carefully planned his invasion and prepared his army for war. William fiercely fought in the battle even though it looked like he could lose.

13) Key terms:



Cesspits: a hole in the ground where waste collects.

Empire: When one country controls other countries.

Germ theory: The idea that germs are the cause of disease.

Hygiene: Actions to look after your health such as cleaning.

Sanitation: Water and waste disposal.

Turning Point: A moment of sudden and important change.

Heir: The person who is next in line to be king. (Usually the eldest son).

Monarch: A king or a queen.

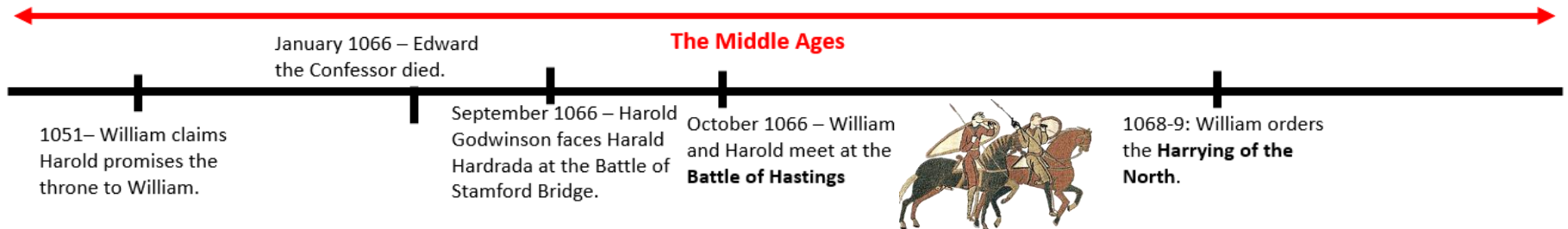
Oath: A promise that must not be broken.

Propaganda: Information designed to change thought.

Tapestry: A heavy cloth with pictures that is hung on a wall.

Witan: A group of important people who advise the King.

14)



8. Tu aimes ça?

J'aime	J'adore	Je n'aime pas	Je déteste
I like	I love	I don't like	I hate

le sport = sport
la danse = dance
la musique = music
les serpents = snakes

les pizzas = pizza
le cinéma = cinema
le collège = school



9. Tu aimes ça?



le vélo = cycling
les glaces = ice creams
les vacances = holidays
le poisson = fish
les jeux-vidéo = video games
les araignées = spiders

10. Verb infinitives

chanter = to sing
danser = to dance
bloguer = to blog
surfer = to surf
tchatter = to chat (online)
rigoler = to have a laugh
étudier = to study
nager = to swim
jouer = to play
gagner = to win
rencontrer (mes amis) = to meet



11. Ma salle de classe



Il y a ... = there is...
un poster = a poster
un écran = a screen
un ordinateur = a computer
un tableau = a board
une porte = a door
une fenêtre = a window
une tablette = a tablet
un/une prof = a teacher (M/F)
des chaises = (some) chairs
des tables = (some) tables
des élèves = pupils

12. Dans ma salle de classe

à gauche = on the left
à droite = on the right
au centre = in the centre
au fond = at the back
sur le mur = on the wall



13. Mes opinions



C'est ... = it's
Ce n'est pas = it's not

sympa = nice
génial = great
moderne = modern
triste = sad
nul = rubbish
démodé = old-fashioned

14. Dans mon sac (in my bag)



J'ai... = I have
... une trousse = a pencil case
... un stylo = a pen
... un crayon = a pencil
... une gomme = a rubber
... des feutres = (some) felt tip pens
... une règle = a ruler
... une calculatrice = a calculator
... un cahier = an exercise book
... un livre = a (reading) book
... mon portable = my mobile phone

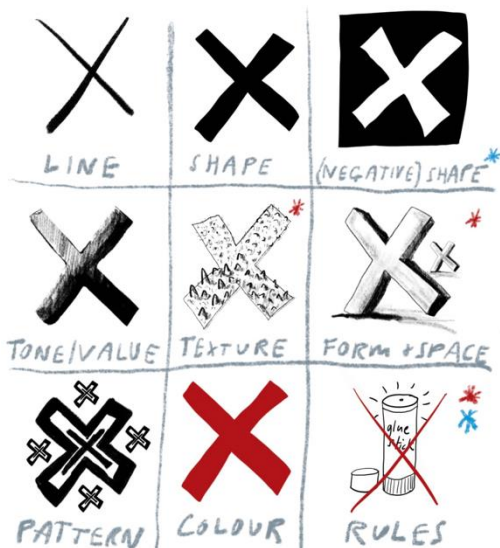
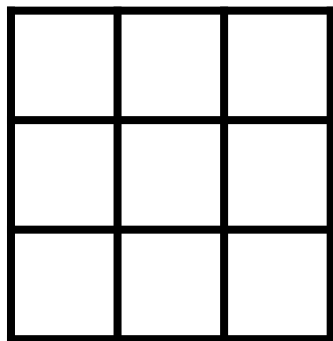
Challenge!

Write a paragraph in French describing your classroom. Think about what there is in the room and where you would find it.

8. Applying Formal Elements



Create your own grid that shows examples of each formal element. In the last box, merge 2 or more elements together. See the example on the right.



9. Formal Elements In Nature



Artists use formal elements of art to guide observations of the natural world and create artwork.

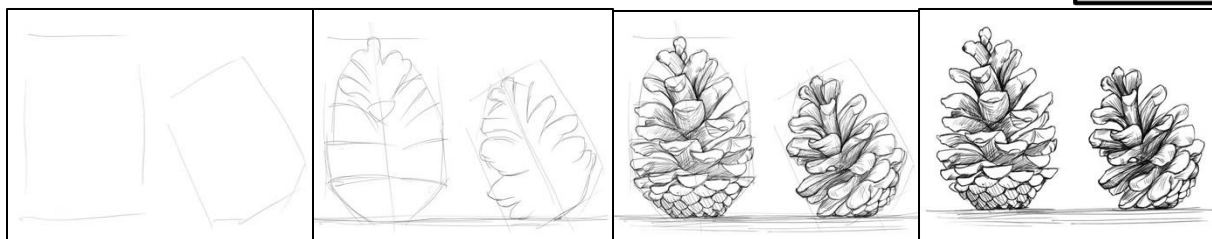
1. What formal elements can you spot in these natural forms?
2. Describe how these surfaces might feel.
3. How would you draw these using formal elements?



10. Observational Drawing

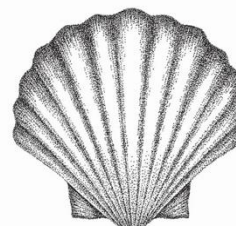
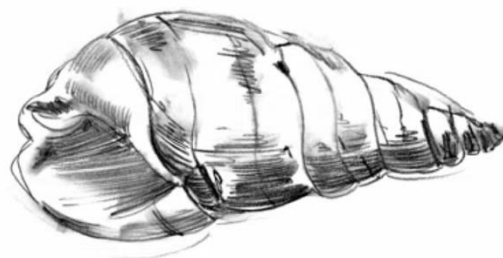


Follow the step-by-step guide to construct a drawing of two pine-cones.



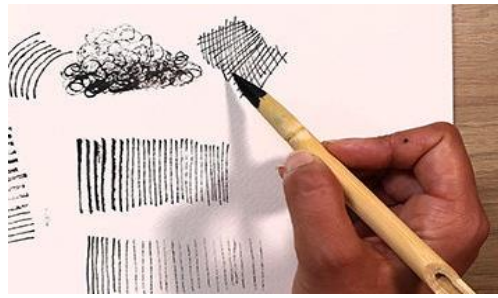
Challenge!

Create your own step-by-step guide to drawing a shell.



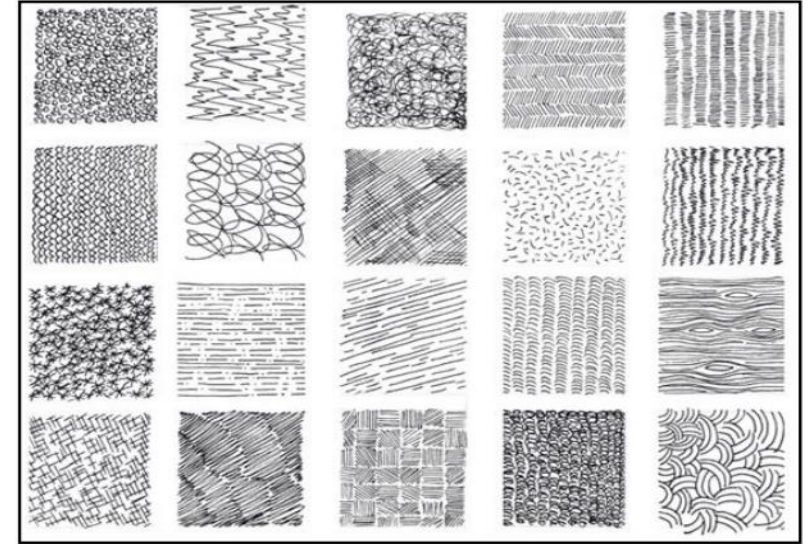
11. Vincent van Gogh

- **Vincent van Gogh (1853-1890)** was a Dutch Post-impressionist. Much of his inspiration was from nature.
- He made his drawings by using reed pens that he made himself, dipping them in ink. He found the reeds along canals.
- He believed drawing based around simple mark making, was 'the root of everything'.



13. Applying Mark Making

Look closely at the marks below.
Try to recreate them!



12. Mark Making

- Vincent van Gogh used various types of marks, swirls, dots and crosses to make his drawings – this is called **mark making**.
- **Mark Making** – describes the different lines, dots, marks, patterns and textures used to create an artwork. These marks can be loose and gestural or controlled and neat.



14. Applying Mark Making to your own landscape.

Vincent van Gogh used various types of marks, swirls, dots and crosses to make his drawings – use his techniques to draw this image or your own landscape.



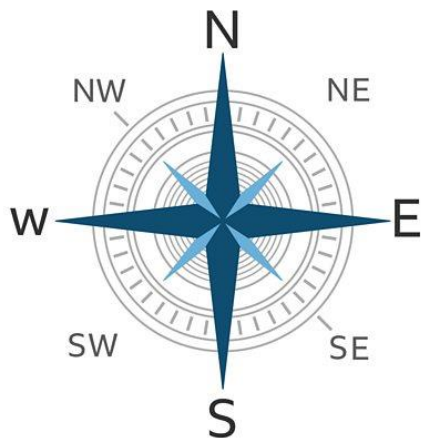
8. Compass Points

Compass points are vital for finding your way on a map.

There are many ways to remember where each direction goes.

You probably learnt a rhyme or a phrase to help you remember.

- North – Naughty
- East – Elephants
- South – Squirt
- West – Water

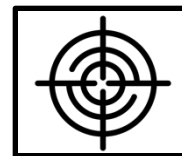


9. Types of Maps

Geographers have traditionally used **maps** to navigate, however we can now use a range of technology to help us find places, e.g. **satellite navigation, GPS and GIS on our computers or mobile phones.**

OS maps **show physical and human features as symbols.** This makes the maps easier to read. Each OS map has a key to show what the symbols mean.

Example of an OS Map of Taunton



SCAN ME

Challenge!

Scan this QR code below and test your knowledge of different types of maps.

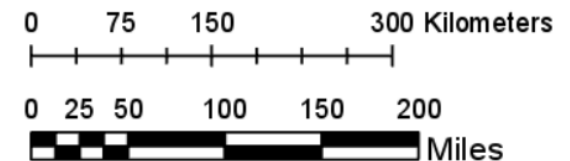
10. Scale and Distance

A map cannot be the same size as the area it represents. It needs to be *scaled down* to fit on a page or a screen.

The scale of the map will be detailed on the map. For example: 1 cm = 2 km.

This means that every cm on the map represents 2 km in real life.

Example of a map scale

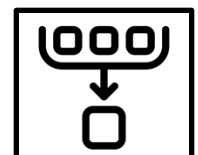


Challenge!

Scan this QR code, watch the video and make some notes on how to measure distance on an OS map.



SCAN ME



11. Relief and Contour Lines

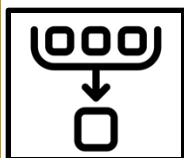
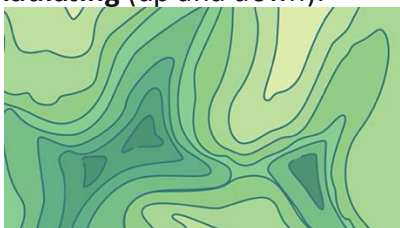
To show height on a map, contour lines are used.

Contour lines join areas of equal height and are shown in **orange** on an Ordnance Survey (OS) map.

The number written on the contour line shows **the height above sea level in metres**.

When contour lines are close together, it means the hill or mountain is **steep**.

When they are far apart, it means the land is **gently sloping**, flat or **undulating** (up and down).



12. 4 Figure Grid References

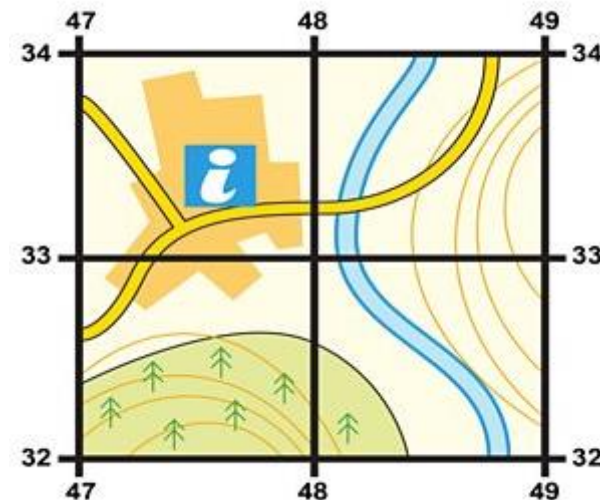
A grid reference is a useful tool for identifying any square on a map. The vertical lines are called **eastings**. They are numbered - the numbers increase to the east. The horizontal lines are called **northings** as the numbers increase in a northerly direction.

Things to remember:

When you give a grid reference, always give the easting first: "**Along the corridor and up the stairs**".

Here are the steps you should follow to produce a four-figure grid reference:

1. Start at the left-hand side of the map and follow the eastings (the vertical lines) along until you come to the bottom left-hand corner of the square you are looking for. Write down the two-figure number, e.g. 47.
2. Follow the northings (the horizontal lines) from the bottom of the map up until you find the same corner and make a note of this number, e.g. 33.
3. Put them together. This will give you the four-figure grid reference. For example, if the easting is 47 and the northing is 33, the grid reference is 47 33.



SCAN ME



Challenge!

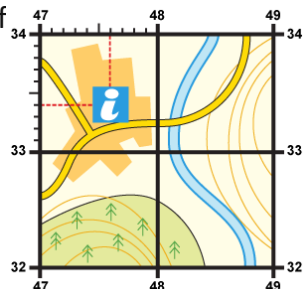
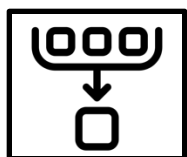
Scan this QR code, see if you can solve the code using 4 figure grid references.

13. Figure Grid References

Sometimes it is necessary to be even more accurate. In this case you can imagine that each grid is divided into 100 tiny squares.

Here are the steps you should follow to produce a six-figure grid reference:

1. First, find the four-figure grid reference but leave a space after the first two digits.
2. Estimate or measure how many tenths across the grid square your symbol lies. Write this number after the first two digits.
3. Next, estimate how many tenths up the grid square your symbol lies. Write this number after the last two digits.
4. You now have a six-figure grid reference. In this instance, the tourist information of 476334.



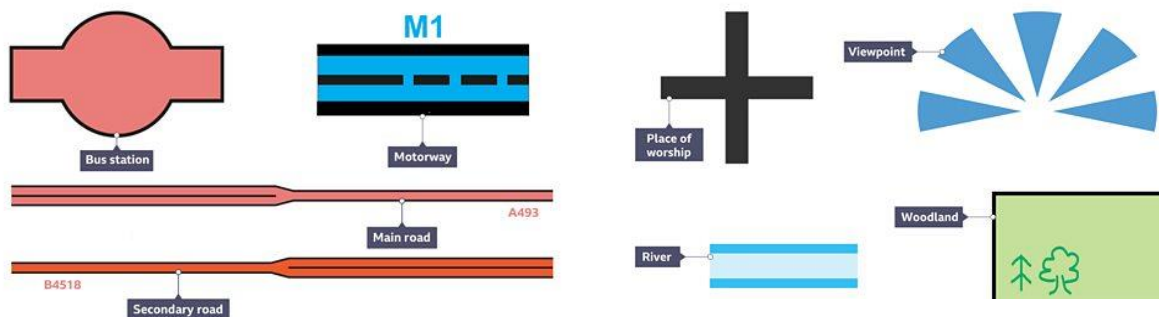
14. Map symbols

Maps contain a lot of information about the areas of land that they show. There are too many features to label everything using text, so we use map **symbols**.

Symbols can be **small pictures, letters, lines or coloured** areas to show features like campsites, youth hostels or bus stations. If you look closely at a map, you will see that it is covered in symbols.

There will usually be a **key** next to the map to tell you what the symbols mean.

Here are some examples of OS map symbols:

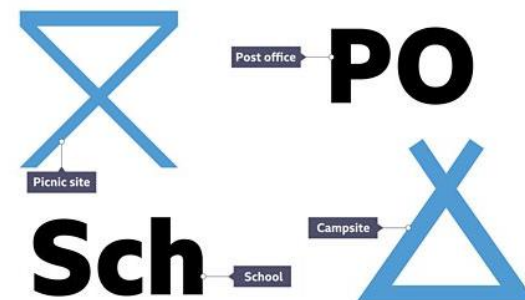


SCAN ME



Extra Challenge!

Scan this QR code below and test your knowledge of map symbols.



Book and Author

Next page

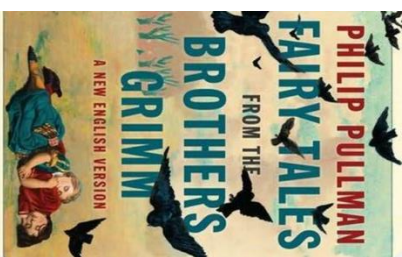
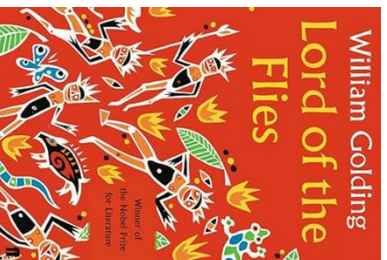
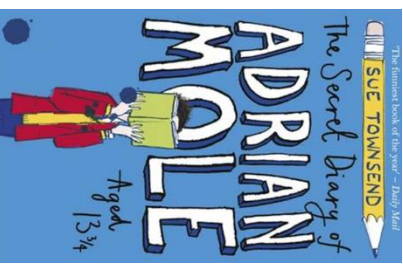
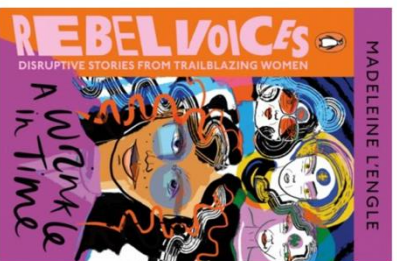
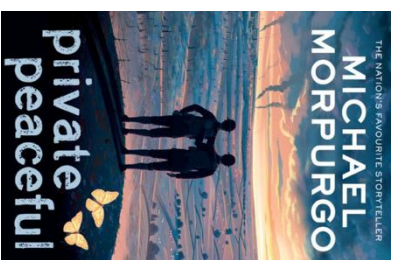
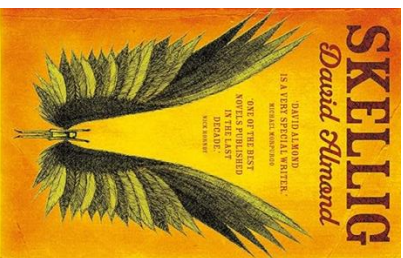
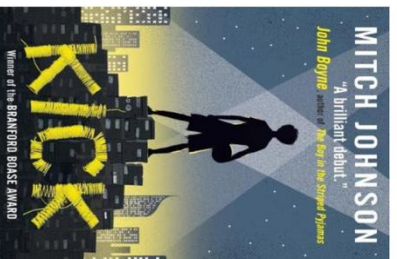
Comments and signature

Book and Author

Next page

Comments and signature

Recommended Reads



Pyrland against Prejudice

NO to being unkind about race, culture or nationality
 NO to being unkind about sexuality or identity
 NO to inappropriate physical contact
 NO to abusive language

If someone is being unkind to you, tell your tutor or Head of Year.
 Or you could let us know by...



PYRLAND SCHOOL

PAUSE AND SPEAK UP @ Pyrland

