

# KNOWLEDGE

# ORGANISER

**Year 9**  
Half Term 2



Name:

Tutor Group:

Academic Year:



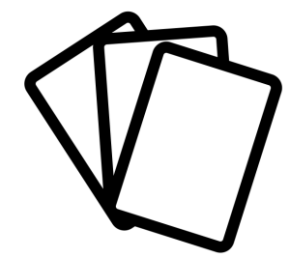

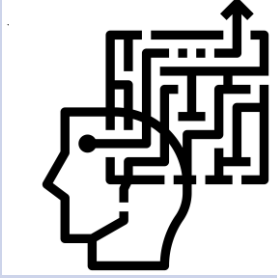
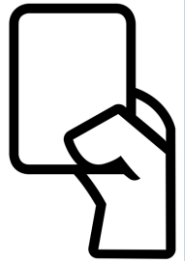



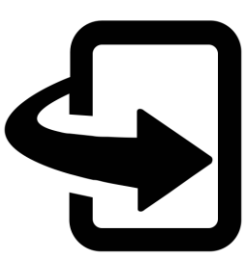
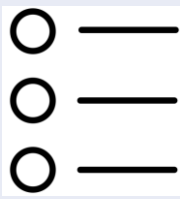


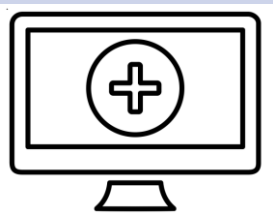
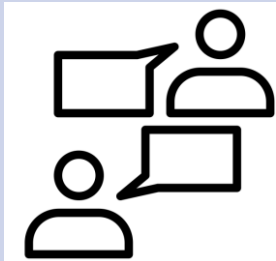

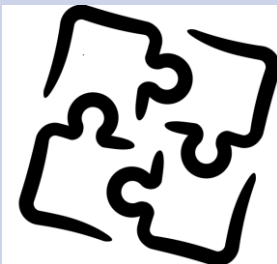

# How to use your Knowledge Organiser



The aim of the knowledge organiser is to ensure that **ESSENTIAL KNOWLEDGE** is stored and retrieved over a long period of time.



You need to ensure that you keep your knowledge organiser in your bag, ready for revision, quizzing and to refer to at any time in all of your subjects.

	Look, Cover, Write, Check	Definitions to Key Words	Flash Cards	Self Quizzing	Mind Maps	Paired Retrieval
Step 1	<p>Look at and study a specific area of your knowledge organiser</p> 	<p>Write down the key words and definitions.</p> 	<p>Use your knowledge organiser condense and write down key facts and/or information on your flash cards.</p> 	<p>Read through a specific area of your knowledge organiser</p> 	<p>Create a mind map with all the information that you can remember from your knowledge organiser.</p> 	<p>Ask a partner or someone at home to have the quiz questions or flash cards in their hands.</p> 
Step 2	<p>Flip the knowledge organiser and write everything you can remember.</p> 	<p>Try not to use the solutions to help you.</p> 	<p>Add diagrams or pictures if appropriate. Write the solutions on the back of the cards.</p> 	<p>Turn over and answer the questions related to that area.</p> 	<p>Check your knowledge organiser to correct or improve your mind map.</p> 	<p>Ask them to test you by asking questions on the section you have chosen from your knowledge organiser.</p> 
Step 3	<p>Check what you have written. Correct mistakes and add extra information. Repeat.</p> 	<p>Check your work. Correct using red pen and add more information if appropriate.</p> 	<p>Self quiz using the cards or ask some to help by quizzing you.</p> 	<p>Turn back over and mark your quiz. Keep quizzing until you get all questions correct.</p> 	<p>Try to make connections that links information together.</p> 	<p>Either say or write down you answers.</p> 

**CORE**

# Movements – Year 9 Unit 1 – English

1700

## The Augustans (1700 – 1740s)

- |  |  |
|--|--|
| <b>Features:</b>   | <b>Key figures:</b>  |
| <ul style="list-style-type: none"> <li>The modern novel</li> <li>Satire</li> </ul> | <ul style="list-style-type: none"> <li>Alexander Pope</li> <li>Jonathan Swift</li> </ul> |

## Romanticism (1790 – 1850)

- |   |  |
|---|--|
| <b>Features:</b>  | <b>Key figures:</b>  |
| <ul style="list-style-type: none"> <li>Individualism</li> <li>Nature</li> <li>Emotion</li> <li>A response to the Industrial Revolution</li> </ul> | <ul style="list-style-type: none"> <li>William Wordsworth</li> <li>William Blake</li> <li>Lord Byron</li> <li>Percy Shelley</li> </ul> |

## Gothic Fiction (1764 – 1832)

- |  |   |
|--|---|
| <b>Features:</b>   | <b>Key figures:</b>   |
| <ul style="list-style-type: none"> <li>Supernatural</li> <li>The sublime</li> <li>Duality of man</li> <li>Fear and horror</li> </ul> | <ul style="list-style-type: none"> <li>Horace Walpole</li> <li>Mary Shelley</li> <li>Edgar Allan Poe</li> </ul> |

## Transcendentalism (1830 – 1855)

- |   |   |
|---|---|
| <b>Features:</b>  | <b>Key figures:</b>   |
| <ul style="list-style-type: none"> <li>Spirituality and the divine</li> </ul> | <ul style="list-style-type: none"> <li>Henry David Thoreau</li> </ul> |

## Realism (1860 – 1940)

- |   |   |
|---|---|
| <b>Features:</b>  | <b>Key figures:</b>   |
| <ul style="list-style-type: none"> <li>Mundane, everyday life</li> <li>Average people</li> <li>Focus on middle/lower classes</li> </ul> | <ul style="list-style-type: none"> <li>Leo Tolstoy</li> <li>George Eliot</li> <li>John Steinbeck</li> </ul> |

## Naturalism (1865 – 1900)

## Modernism (1890 – 1950)

- |   |  |
|---|--|
| <b>Features:</b>  | <b>Key figures:</b>  |
| <ul style="list-style-type: none"> <li>Rejection of traditional forms</li> <li>A sense of disillusionment with the world</li> </ul> | <ul style="list-style-type: none"> <li>F. Scott Fitzgerald</li> <li>James Joyce</li> </ul> |

## Minimalism (1940 – 1980)

- |   |  |
|---|--|
| <b>Features:</b>  | <b>Key figures:</b>  |
| <ul style="list-style-type: none"> <li>Stripped-down prose</li> <li>Emotional distance from subjects</li> </ul> | <ul style="list-style-type: none"> <li>Samuel Beckett</li> <li>Ernest Hemingway</li> </ul> |

## Postmodernism (1951 – Present)

- |   |  |
|---|--|
| <b>Features:</b>  | <b>Key figures:</b>  |
| <ul style="list-style-type: none"> <li>Unreliable narrator</li> <li>Allusion to other works</li> <li>Social/political commentary</li> </ul> | <ul style="list-style-type: none"> <li>Samuel Beckett</li> <li>Joseph Heller</li> <li>Kurt Vonnegut</li> </ul> |

## Context: The Romantics

At the time of the Industrial Revolution, society was becoming increasingly scientific, logical and rational. Romantic writers focused on the beauty of nature, emotion and spontaneity. They were individualists who rebelled against social expectations.

## Context: Gothic Fiction

Gothic fiction allowed Victorian writers to push the boundaries of what was acceptable in society. It explored the darker side of human nature, and, as scientific ideas developed with the publication of Darwin's 'On the Origin of Species', it asked questions about the dangers of forbidden knowledge and the 'animal' side of humans.

## Critical Theory

### Marxism

Marxist theory considers how texts present the struggle between the working and ruling classes, and how the characters' lives and worlds are shaped by Capitalist exploitation.

### Feminism

Feminist theory considers how texts present the role and purpose of women. For example, do female characters act independently, or are they victims of patriarchal oppression?

### Psychoanalytical Theory

Psychoanalytical theory investigates the hidden, psychological motivations of the characters in a text and asks if the author's unconscious thoughts are expressed through their writing.

## The Harlem Renaissance

Harlem is an area of New York that became a centre for African-American artistic expression in the early 1900s.

## The Beat Generation

In the 1950s, a group of poets rejected social tradition social and poetic form to write free, rebellious, explicit poems.

Present Day

Poetic terms

- Enjambment:** a sentence in a poem that runs over more than one line.
- Caesura:** a pause in a line of poetry using punctuation
- Dramatic Monologue:** A poem spoken by a single character that tells a story.

# Movements – Year 9 Unit 1 – English

Present Day  
1700

- Draw out the timeline from 1700 to the present day. Can you name the literary movements in order?
- For each literary movement, research one key text. Write a paragraph about why it is considered important.
- Choose one feature associated with each movement and explain how or why it was used. For example, why were Gothic writers interested in exploring the duality of man?
- Think back over the texts you have studied in year 7 and 8 that have been written between 1700 and present day (i.e. not Shakespeare or Greek myths). Which literary movement would you place each text in? Why?

## Context: The Romantics

- What was the romantic era, in large part, a reaction to?
- What were the values of Romantic writers?
- Choose one Romantic writer and research their work. Complete a page of your reflection log to explain what influenced their writing.
- **Stretch:** read and summarise the article from the British Library:  
<https://www.bl.uk/romantics-and-victorians/articles/the-romantics>

## Context: Gothic Fiction

- What elements of society was Gothic fiction a response to?
- How did Darwin's scientific theories influence Gothic literature?
- Choose one Gothic writer and research their work. Complete a page of your reflection log to explain what influenced their writing.
- **Stretch:** read and summarise the article from the British Library:  
<https://www.bl.uk/romantics-and-victorians/articles/the-origins-of-the-gothic>

## Critical Theory

- Watch the video on literary criticism and make a page of notes in your reflection log:  
<https://tinyurl.com/2svmah8h>

### Marxism

- Watch the video on Marxist criticism, complete your own research and make a page of notes in your reflection log:  
[https://www.youtube.com/watch?v=RhU57\\_nP3zM](https://www.youtube.com/watch?v=RhU57_nP3zM)

### Feminism

- Watch the video on feminist criticism, complete your own research and make a page of notes in your reflection log:  
<https://www.youtube.com/watch?v=fRQtBsS-XaU>

### Psychoanalytical Theory

- Watch the video on psychoanalytical criticism, complete your own research and make a page of notes in your reflection log: <https://www.youtube.com/watch?v=c4NXNfBEwZg>

## The Harlem Renaissance

- Read and summarise the article on the Harlem Renaissance: <https://tinyurl.com/harl3mr3n>
- What was the Harlem Renaissance?

## The Beat Generation

- Read and summarise the article on the Beat Generation:  
<https://tinyurl.com/b3atg3n>
- Research Jack Kerouac and Allen Ginsberg. Complete a page of your reflection log, describing what inspired their poetry.
- **Research:** How were the Beats responding to social pressures?

Poetic terms

- What is enjambment?
- What is caesura?
- What is a dramatic monologue?
- Can you give an example of enjambment and caesura from a poem you have studied?

# YEAR 9 — CONSTRUCTING IN 2D/3D... 3D Shapes

@whisto\_maths

## What do I need to be able to do?

By the end of this unit you should be able to:

- Name 2D & 3D shapes
- Recognise Prisms
- Sketch and recognise nets
- Draw plans and elevations
- Find areas of 2D shapes
- Find Surface area for cubes, cuboids, triangular prisms and cylinders
- Find the volume of 3D shapes

## Keywords

**2D:** two dimensions to the shape e.g length and width

**3D:** three dimensions to the shape e.g length, width and height

**Vertex:** a point where two or more line segments meet

**Edge:** a line on the boundary joining two vertex

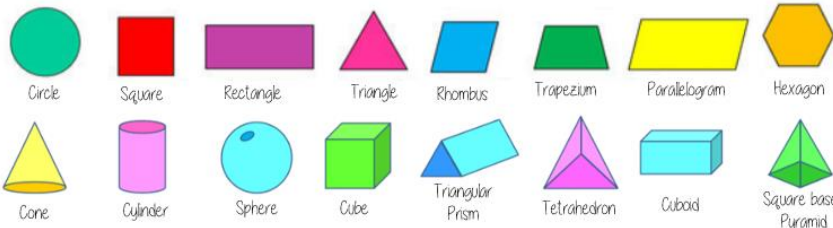
**Face:** a flat surface on a solid object

**Cross-section:** a view inside a solid shape made by cutting through it

**Plan:** a drawing of something when drawn from above (sometimes birds eye view)

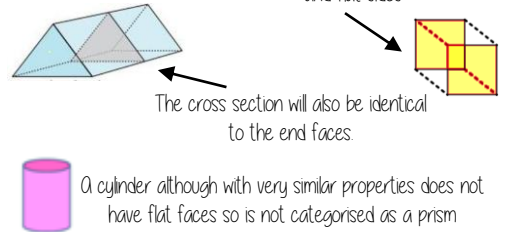
**Perspective:** a way to give illustration of a 3D shape when drawn on a flat surface.

## Name 2D & 3D shapes

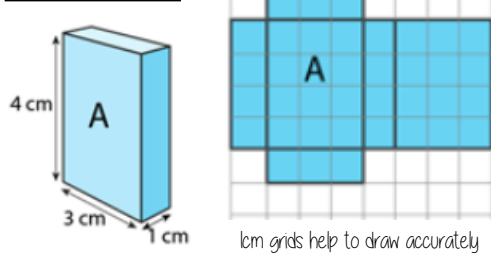


## Recognise prisms

A solid object with two identical ends and flat sides

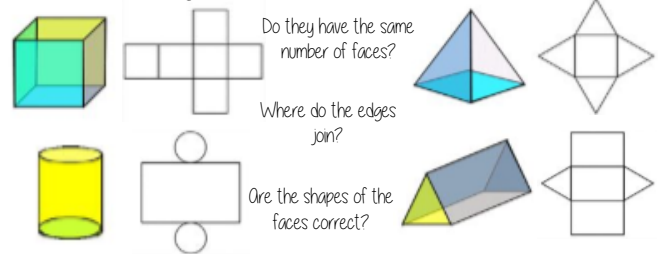


## Nets of cuboids

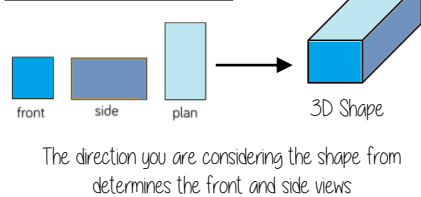


Visualise the folding of the net. Will it make the cuboid with all sides touching

## Sketch and recognise nets

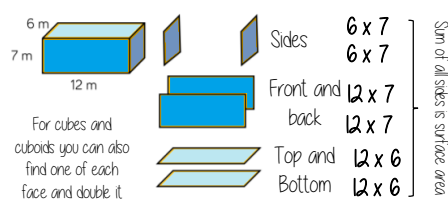


## Plans and elevations



## Surface area

Sketching nets first helps you visualise all the sides that will form the overall surface area



For other shapes - not all the sides are the same, so calculate the individually

## Volumes

Volume is the 3D space it takes up - also known as capacity if using liquids to fill the space

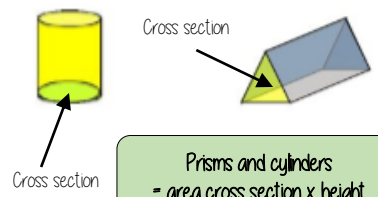


### Counting cubes

Some 3D shape volumes can be calculated by counting the number of cubes that fit inside the shape

**Cubes/ Cuboids = base x width x height**

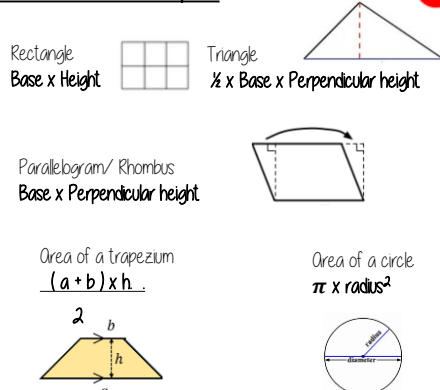
Remember multiplication is commutative



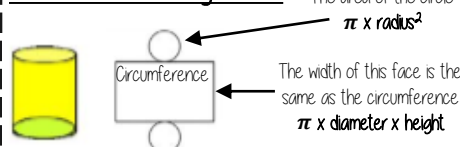
Areas - square units  
Volumes - cube units

Areas and volumes can be left in terms of  $\pi$

## Area of 2D shapes



## Surface area - cylinders



**$2 \times \pi \times \text{radius}^2 + \pi \times \text{diameter} \times \text{height}$**

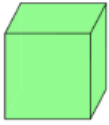
# YEAR 9 — CONSTRUCTING IN 2D/3D... 3D Shapes

@whisto\_maths

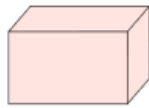
## Name 2D and 3D shapes

Name the following 3D objects:

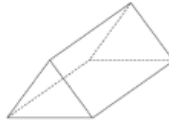
(a)



(b)



(c)



(d)



(e)

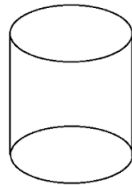
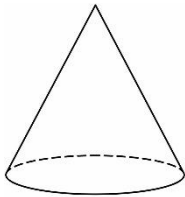
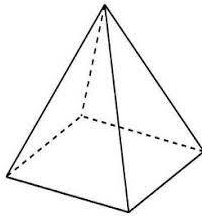


(f)



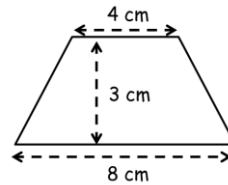
## Recognise Prisms

Tick which of the following are prisms:



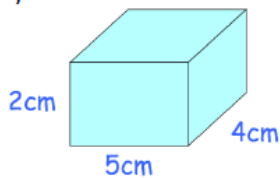
## Area of 2D Shapes

Calculate the area of the trapezium:



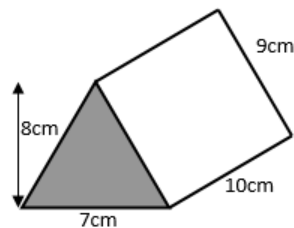
## Surface Area

Calculate the total surface area of the following cuboid:



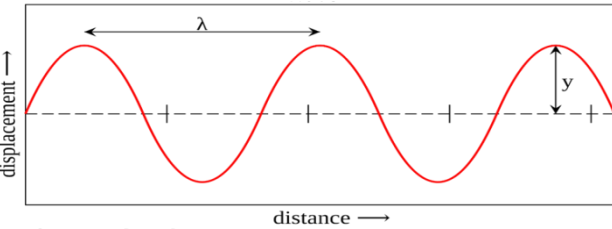
## Volume

Calculate the volume of the following object:



## Transverse & Longitudinal Waves

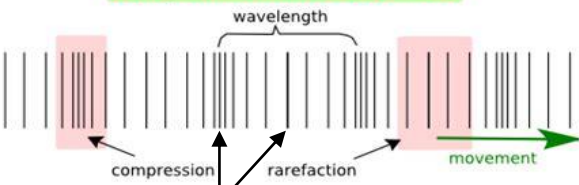
### Transverse Waves (light)



$\lambda$  = wavelength  
 $y$  = amplitude

The displacement of a transverse wave is described as peaks and troughs. In a longitudinal wave these are described as compressions and rarefactions.

### Longitudinal wave (sound)

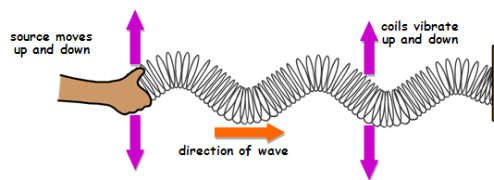


Max displacement = 2 × Amplitude

**Wavelength (m)** - the distance from one point on a wave to the same point on the next wave.

**Amplitude (m)** - the maximum displacement of a point on a wave from its undisturbed position.

**Frequency (Hz)** - the number of waves passing a point per second.  
**Period (s)** - the time taken to produce one complete wave.



### Applications of EM Waves

	Type	Application	Suitability (HT)
Low frequency low wavelength	Radio	Television and radio	Travel through atmosphere for long distances
	Microwave	Satellite communications, Cooking food	Travel through atmosphere; agitates water molecules causing them to heat food
	Infrared	Electrical heaters, cooking food, infrared cameras	Heat energy transfer; detection of heat waves
High frequency short wavelength	Visible	Fibre optic communications	Retina can detect light waves; light can travel through optic fibres and carry information
	Ultraviolet	Energy efficient lamps, sun tanning	Some materials can absorb UV and re-emit as visible, energy efficient, skin reacts to UV light causing tanning
	X-rays	Medical imaging and treatment	Pass through soft tissue, penetrate materials to different extents so can produce image
	Gamma rays	Medical imaging and treatment	Kill tissue; tracers can produce images of internal organs.

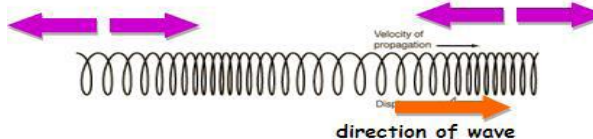
## Knowledge Organiser Year 8 Waves part 1

### Ultrasound

Ultrasound is sound waves with a frequency over 20,000 Hz - too high pitch for humans to hear.



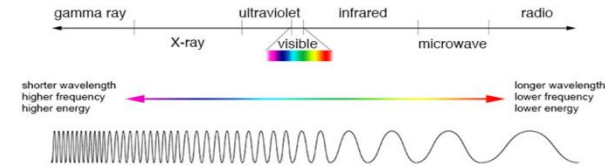
Ultrasound waves can be used to generate an image during a baby scan.



## Electromagnetic (EM) Waves

Light is a type of wave (transverse wave) called Electromagnetic.

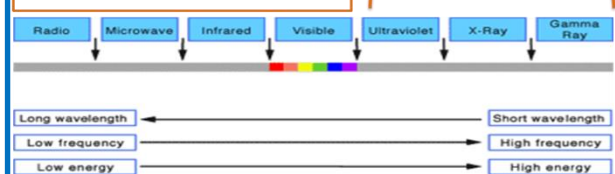
Electromagnetic (EM) waves travel in straight lines and do not need material to travel through. They are transverse waves that transfer energy from the wave source to an absorber.



### EM Spectrum

Electromagnetic waves form a continuous spectrum from the shortest (gamma waves) to medium (the different colours of visible light) to the longest (radio waves).

High frequency radiations have **high energy**. They can have a **hazardous** effect on **human tissue**.  
 UV, X ray and gamma waves are high energy radiations.



Shorter wavelengths have a higher frequency and higher energy.





# Science Knowledge Organiser – Year 8 Waves part 1

## Self Quizzing Questions

### Transverse & Longitudinal Waves:

1. Give the definition for *wavelength* of a wave.
1. Give the definition for *amplitude* of a wave.
1. Give the definition for *frequency* of a wave.
1. Give the units (what it is measured in) for wavelength and amplitude of a wave.
1. Give the definition for (*time*) *period* of a wave and state the units.
1. What is the displacement described as in a transverse wave?
1. What is the displacement described as in a longitudinal wave?
1. What type of wave (longitudinal or transverse) is light?
1. What type of wave (longitudinal or transverse) is sound?

### Ultrasound:

1. State the frequency of Ultrasound.
1. Give one use for ultrasound waves.

### Electromagnetic (EM) Waves:

12. How do electromagnetic waves travel?
12. What do electromagnetic waves do?
12. Name the shortest wavelength in the electromagnetic spectrum.
12. Name the longest wavelength in the electromagnetic spectrum.

### Applications of EM Waves:

12. State two applications of radio waves.
12. State two applications of microwaves.
12. State three applications of infrared waves.

### EM Spectrum:

12. Name the three high energy radiations.
12. Do shorter waves have lower or higher energy?
12. Name the lowest energy EM wave.

### EXTENSION ACTIVITIES:

- Compare Light & Sound waves. Draw diagrams of each to help your description of how they differ from each other.
- Explain how a baby scan works

**EBACC**

### Prior Knowledge

Most adjectives have a different feminine form.

masculine	feminine
patient	patiente
intelligent	intelligente
paresseux	paresseuse
sportif	sportive

Some adjectives are the same in the masculine and feminine forms.

masculine	feminine
sympa	sympa
pénible	pénible
drôle	drôle
égoïste	égoïste
timide	timide

Possessive adjectives are the words for 'my' and 'your'. They change according to whether the noun they refer to is masculine, feminine or plural.

	masculine	feminine	plural
my	<b>mon</b> père	<b>ma</b> mère	<b>mes</b> parents
your	<b>ton</b> père	<b>ta</b> mère	<b>tes</b> parents

on means 'we'. The verb form is the same as for *il* and *elle*.

on parle we speak  
on regarde we watch  
on va we go  
on rigole we have a laugh



### Avoir and Être

When talking about other people, the most common verbs to use are avoir and être which, when conjugated, look like this;

Avoir

J'ai	I have	Je suis	I am
Tu as	You have	Tu es	You are
Il a	He has	Il est	He is
Elle a	She has	Elle est	She is
On a	We have	On est	We have
Nous avons	We have	Nous sommes	We have
Vous avez	You have	Vous êtes	You are
Ils ont	They have	Ils sont	They are
Elles ont	They have	Elles sont	They are

**aller** (to go)

je vais  
tu vas  
il/elle/on va  
nous allons  
vous allez  
ils/elles vont



You use the near future tense to talk about what you are going to do.

<b>je vais</b> porter	I am going to wear
<b>tu vas</b> porter	you are going to wear
<b>il/elle va</b> porter	he/she is going to wear
<b>on va</b> porter	we are going to wear

### Verbes utiles

être*	to be	<i>*irregular verbs</i>
avoir*	to have	
écouter	to listen	
parler	to speak	
discuter	to discuss	
rigoler	to have a laugh	
aller	to go	
faire	to do*	
télécharger	to download	
regarder	to watch	
jouer	to play	<b>Venir* = to come</b> Je viens I come Tu viens You come Il vient He comes Elle vient She comes Nous venons We come Vous venez You come Ils viennent - They come Elles viennent - They come
visiter	to visit	
acheter	to buy	
porter	to wear	
nager	to swim	
danser	to swim	

### Le verbe aller dans le passé

We have learnt that when putting most verbs in French into the past tense, we use them with the verb avoir (to have), however, there is a group of verbs that go with être (to be) in the past tense. Aller is one of these verbs as seen below;

Je suis allé	I went
Tu es allé	You went
Il est allé	He went
Elle est allée	She went
On est allé	We went
Nous sommes allés	We went
Vous êtes allés	You went
Ils sont allés	They went
Elles sont allées	They went

Note the extra e/s on some of the past participles

### Quel temps fait-il?

La météo - The weather  
Quand... When  
S'... If

Il fait beau



It's fine

Il fait chaud



It's hot

Il pleut



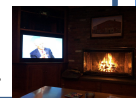
It's raining

Il fait froid



It's cold

S'il fait froid, je regarde la télé.



### Reading

Associe les phrases aux dessins.

- manger au restaurant
- un tee-shirt bleu
- des baskets
- jouer au foot
- aller au cinéma
- un jean
- faire du camping
- un pantalon beige
- un short orange
- faire de la rando
- une chemise blanche
- aller à un concert
- des bottes noires
- un sweat à capuche noir
- un pullover bleu



e.g. 1 = a

Lis les textes. Copie et remplis le tableau.

Read the texts. Copy and fill in the table.

	artist	opinion	other details
Quentin	Lily Allen		
Guillaume			
Gabrielle			

La musique, c'est ma passion. J'écoute du métal parce que j'adore ça. Je n'aime pas du tout la musique de Lily Allen. À mon avis, c'est nul.

**Quentin**



Je suis fan de Diam's. J'adore la chanson *Ma France à moi* parce que j'aime bien les paroles. J'aime aussi son look et je pense qu'elle est sympa et intelligente. Je n'aime pas la musique de Michael Bublé. Il est nul. Mais ma sœur adore sa musique. Moi, je n'aime pas les paroles.

**Gabrielle**



Moi, j'aime beaucoup la musique de Katy Perry parce que j'adore les paroles et les mélodies.

**Guillaume**



### Grammar Practice

8 Which three sentences are correct? Correct the two sentences that are wrong.

- J'ai joué au foot dans le parc.
- J'ai regarde des DVD.
- Je joué au volley avec mes copains.
- J'ai aimé le film.
- J'ai mangé du popcorn.

### The perfect tense with être

To form the perfect tense of the verb **aller**, you use **je suis** (instead of *j'ai*) plus the past participle.

If you are a boy, you say:

*je suis allé* I went

If you are a girl, there is an extra **-e** on the past participle:

*je suis allée* I went

9 Find the five sentences in this word snake.

Hiers soir, j'esuis allé en ville. Le weekend dernier, j'esuis allé au parc. Ensuite, j'esuis allé au cinéma. Puis j'esuis allé au restaurant. Finalement, j'esuis allé au lit.

10 Translate these sentences into French.

- I ate a pizza.
- I went into town.
- I watched a film.
- I played table tennis.
- I went to the cinema.

### Writing

6 Choose the correct form of the near future tense to fill in the gaps.

Ce weekend, **1** je va faire/je vais faire du shopping avec mes copines et le soir, **2** je vas manger/je vais manger au restaurant.

Le dimanche, **3** je vais aller/je va aller au cinéma avec ma famille. **4** Je vais porter/Je vas porter ma jupe bleue. Et toi, qu'est-ce que **5** tu vais faire/tu vas faire?

7 Adapt the paragraph above to write about what you are going to do this weekend. Can you also write some sentences to say what you did last weekend (le weekend dernier) using the perfect tense with avoir and the phrase 'je suis allé' to say 'I went'?

#### WEEKEND PLANS

- Walk my dog
- Cuddle my dog
- Talk to my dog
- Watch tv with my dog

My weekend plans:



#### WEEKEND PLANS



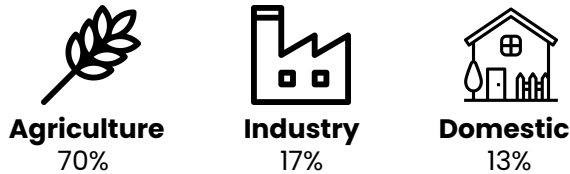
NO PLAN

## 1 – Water consumption

Only 3% of all the water in the world is fresh and only 1% is available for us to use.

### Globally

Consumption of water has increased rapidly since the 1950s. This is mainly due to population growth. Water is consumed for three main purposes:



### In the UK

The water which comes to our homes comes from **rainwater**. It is stored in two ways:



**Water deficits** exist in areas of high population density and low precipitation. Example: South East England

**Water transfer and storage schemes** move water from areas of surplus to areas of deficit but can lead to conflict.

## 2 – Air pollution

99% of the global population breathe air that contains high levels of pollutants (gases and particulates)

Populations in LICs and NEEs suffer from the highest exposures.

Burning fossil fuels for energy and forest fires are the main sources of air pollutants.

### UK transport-related air pollution

The highest concentrations of pollutants are in the south east of England

#### Causes:

- Rapid **increase in the use of cars** burning petrol
- Increased traffic congestion** - Leads to cars idling and releasing carbon dioxide, nitrogen dioxide and particulates in high concentrations

#### Impacts:

- Health problems:** lung disease, heart disease, asthma, underweight babies
- Linked to 40,000 deaths annually.

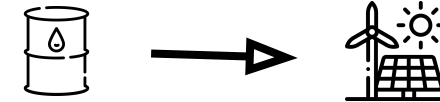
#### Solutions:

- Reduce car use** through increased use of public transport, clean air zones and car sharing schemes
- Use cleaner cars** - electric or hybrid

## 3 – Energy generation

In 2020 43% of UK power came from renewable energies. It is planned that all coal fired power stations will be closed by 2025.

This shows that the energy mix is changing:



**From fossil fuels**  
Coal, oil and gas

**To renewables**  
Wind, solar and HEP

**Non-renewable** sources such as **coal** are often burnt in power stations to produce electricity.

#### Opportunities:

- Abundant reserves of coal
- Cheap to generate electricity
- Continual supply is possible

#### Challenges:

- Coal is a finite resource
- Coal needs to be imported
- Produces air pollutants

**Renewable** the biggest source of renewable energy in the uk is **wind**.

#### Opportunities:

- Doesn't create air pollution
- Low operating costs
- Provides jobs

#### Challenges:

- Intermittent production
- Produces noise pollution
- Expensive to build wind farms

## 4 – Key terms

**Irrigation** - artificially applying water to crops using channels or sprinklers

**Water stress** - Pressure felt when demand for water exceeds local availability

**Water deficit** - When demand for water is greater than supply

**Water surplus** - When supply of water is greater than demand

**Reservoir** - An artificial lake where water is stored. Formed by building a dam.

**Traffic congestion** - The slow movement of traffic caused by large traffic volume

**Fossil fuel** - fuel formed from the fossilised remains of plants or animals

**Pollutants** - harmful or dangerous substances introduced to an environment

**Renewables** - sources of energy which do not run out



## 1 – Water consumption

1. How much of the world's water is fresh?
2. How much of the world's water is available to use?
3. What is happening to global water consumption?
4. When did this change start?
5. Why is this change happening?
6. What are the three main purposes of water consumption?
7. Where does the water we use in our homes in the UK come from?
8. Where is the water that comes to our homes stored?
9. When does a water deficit occur?
10. Where in the UK is a water deficit a problem?
11. What can be done to move water from areas of surplus to deficit?
12. What problem can occur when these schemes are used?

## 2 – Air pollution

1. What proportion of the global population breathe air that contains high levels of pollutants?
2. Name two types of pollutants
3. Which populations have the highest exposure to pollutants?
4. What are the two main sources of these pollutants?
5. What type of air pollution occurs in the UK?
6. Where are the highest concentrations of pollutants in the UK?
7. Which two factors are causing the increase in transport-related air pollution in the UK?
8. What are the impacts does increased air pollution have on people's health?
9. Name two ways in which transport related air pollution can be reduced.
10. What are the alternatives to using a car?

## 3 – Energy generation

1. How much of the UK's power came from renewables in 2020?
2. When is it planned that all coal fired power stations will close?
3. How is the energy mix changing?
4. Name three fossil fuels.
5. Name three renewables.
6. What happens to non-renewables like coal to generate electricity?
7. What are the opportunities of using non-renewables like coal to generate electricity?
8. What are the challenges of using non-renewables like coal to generate electricity?
9. Which is the most common source of renewable energy in the UK?
10. What are the opportunities of using renewables like wind to generate electricity?
11. What are the challenges of using renewables like wind to generate electricity?

## 4 – Key terms

- |                           |                                |                           |
|---------------------------|--------------------------------|---------------------------|
| 1. What is irrigation?    | 1. What is water surplus?      | 1. What are fossil fuels? |
| 2. What is water stress?  | 2. What is a reservoir?        | 2. What are pollutants?   |
| 3. What is water deficit? | 3. What is traffic congestion? | 3. What are renewables?   |

# RE Knowledge Organiser

## Religious Festivals

### Hinduism

Hindus celebrate many festivals. Hindus in India celebrate these different festivals in many different ways.

The festival of Holi takes place in spring. Celebrations start on the evening before Holi, which is called Holika Dahan. Today, Hindus celebrate this in many ways, but it is traditional to have a bonfire, to which offerings such as grain, dates and coconuts are made.

Diwali is the festival of lights, and households put lines of Diya lamps up in their windows. This celebrates the story of Rama and Sita.



### Sikhism

Vaisakhi is the largest and most famous Sikh festival. It recalls the day Guru Gobind Singh set up the Khalsa in 1699 and takes place in April. A central theme of the celebration is to remind Sikhs they are saint-soldiers - fighting for justice while living spiritual lives.

Gurpurbs are days where Sikhs show respect to the Gurus. The birthdays of Guru Nanak and Guru Gobind Singh and the martyrdom of Guru Arjan are remembered by all Sikhs and are celebrated as gurpurbs. This is a chance for Sikhs to remember what the Gurus endured during their lives and the sacrifices they made for their religion.



### Islam

Islam is the religion of giving, and generosity is an essential part of being a Muslim. This forms a part of the festival Ramadan, in which Muslims fast during the day and only eat between a certain amount of hours in the evening. Another festival in Islam is Eid. Eid is another festival in which Muslims will give and receive gifts. There are two Eid festivals; Eid Ul-Adha which is celebrated at the end of Hajj and Eid Ul-Fitr celebrated on the first day of Shawwal, the month after Ramadan.



### Judaism

There are a number of different festivals in Judaism including Pesach and Sukkot. Pesach, sometimes known as Passover, is a festival held each year and remembers the story of Moses' mission to free the Israelites in Egypt. Pesach means to pass over, referring to God's passing over the Israelites' houses and sparing their firstborn. The Festival of Sukkot looks back to the Exodus, when the Israelites wandered the desert, and it celebrates the autumn harvest, when farmers bring in their crops. When the Israelites wandered the desert after leaving Egypt they faced many hardships, including hunger and exhaustion. Sukkot is a remembrance of this and the reason why there is a celebration of a successful harvest. =-['

### Christianity

The most important celebration in Christianity is Easter, and it remembers the death and resurrection of Jesus. Religious celebrations and services begin with Psalm Sunday and carry on for a week up until Easter Sunday. The resurrection of Jesus is one of the most significant, if not the most significant, events to take place in Christianity, as for most Christians this shows that Jesus was certainly the son of God.

Other important days of that week include Maundy Thursday, Good Friday and Easter Saturday. Other festivals include Christmas, which celebrates the birth of Jesus. There are many aspects to the celebration of Christmas including Advent, Christingle and Midnight Mass.

### Buddhism

There are two main festivals in Buddhism, Wesak and Parinirvana Day.

Wesak is commonly celebrated in May. It is the Buddhist festival that celebrates the birth of the Buddha. Wesak also commemorates the three major events in the Buddha's life, which were his birth, his enlightenment and his death. It is also known as Buddha Day.

Parinirvana Day is linked to Wesak as it is concerned with the Buddha's death. It is commonly celebrated by Mahayana Buddhists on the 15th of February and it commemorates when the Buddha achieved final nibbana.

## KEY VOCABULARY/TERMS

Pesach, Mitzvah, Eid-UI Fitr, Eid Ul-Adha, Ramadan, Christingle, Psalm, Advent, Shawwal, Sukkot, Matzah, Exodus, Sukkah, Holi, Divali, Holika Dahan, Rangwali Holi, Rangoli Patterns, Diya lamps, Wesak, Parinirvana Day, Vaisakhi, Khalsa, Gurpurbs, Nibbana, Enlightenment

# RE Knowledge Organiser

## Religious Festivals

### Quiz questions

What does Pesach translate into?

When does Sukkot celebrate?

What is the most important celebration in Christianity?

How long does the Easter celebrations last?

On what date does Midnight Mass take place?

What do Muslims do during the celebration of Ramadan?

Who led the Israelites out of Egypt?

What is Wesak also known as?

Which festival is celebrated at the end of Hajj?

What does Divali Celebrate?

When is Vaisakha celebrated?

What are Sikhs reminded of during Vaisakha?

Which festival is celebrated at the end of Ramadan?

Whose birthdays are celebrated as part of Gurpurbs?

What does Parinirvana Day celebrate?

When might someone use Diya lamps?

What is the most important festival in Christianity?

When is Parinirviana Day celebrated?



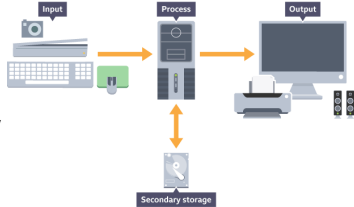


# Computer Science

## 9.1 Computer Systems

### Overview

**Computer systems** are a combination of both hardware and software working together to process data. **Hardware** is the physical components of the computer, such as the central processing unit (CPU), memory and storage. **Software** is the programs that run on a computer, controlling the hardware.



A computer system requires both hardware and software to function. Aside from the internal components of a computer, additional hardware allows the user to communicate with the system through **inputs** and **outputs**.

### Hardware Components

The **PROCESSOR** is the component that executes program instructions.

The main **MEMORY** (primary storage) is the component that stores the programs and data currently in use.

**SECONDARY STORAGE** is the set of components that store programs and data that are not-in use.

The instruction and data are fetched from memory, decoded and executed.

Memory is volatile: its contents are lost when the power is turned off.

Storage is persistent or non-volatile: it retains its contents when the power is off.

**Terminology:** commonly referred to as the CPU (central processing unit).

**Terminology:** The main memory is commonly referred to as RAM (random-access memory).

**Terminology:** Typical secondary storage devices include, Hard drives, solid state drives, SD cards, Optical Disks etc.

### Operating Systems

An **operating system** is the most important software that runs on a computer. The operating systems main functions are to:

- controlling hardware components
- managing the computer's memory
- providing a user interface
- managing security
- managing processes to allow multi-tasking

Without an operating system, a computer cannot operate!

There are numerous operating systems, controlling a variety of devices (computers, phones, tablets etc). Five of the most common operating systems are Microsoft Windows, Apple macOS, Linux, Android and Apple's iOS.

### Computer programs

```
My program
print("Welcome to my program")
age = int(input("How old are you?"))
if age > 18:
```



**Programs** are a sequence of instructions that specify the operations to be performed on data. Programs can be to control the computer system (system software) or to assist the user complete tasks (application software)

### General Purpose Computers

A **general purpose computer** is designed to execute programs, thus allowing it to carry out many different tasks. Desktop computers and laptops are examples of general purpose computers.



### Computers are Digital

A computer is built from hardware. Hardware components are basically a collection of transistors (special switches), at least 1 million transistors per square millimetre which are joined together to form circuits.

Transistors (switches) can only have two states:

- on - a current is flowing through the component
- off - a current is not flowing through the component

These two states can easily be represented by using binary:

1 = on (TRUE)

0 = off (FALSE)



$$0+1=0$$

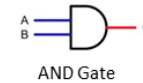
2 or more switches joined together in a circuit is called a logic gate. The logic gates operate in different ways depending on the digital data passing through them. There are 3 logic gates you need to understand; the AND gate, the OR gate and the NOT gate.

### Logic Gates

Logic gates receive binary data, apply a Boolean operation, then output a binary result. Each gate is shown by a different symbol.

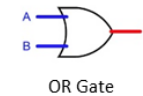
**Truth tables** show all possible input combinations of 1s and 0s and their corresponding outputs.

- AND gates take two inputs and give one output.
- If both inputs are 1, the output is 1, otherwise the output is 0.



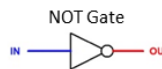
Input A	Input B	Output C
0	0	0
0	1	0
1	0	0
1	1	1

- Or gates take two inputs and give one output.
- If one or more inputs are 1, the output is 1, otherwise the output is 0.



Input A	Input B	Output C
0	0	0
0	1	1
1	0	1
1	1	1

- NOT gates take one put and give one output.
- If the input is 1, it outputs 0. If the input is 0, it outputs 1.



Input	Output
0	1
1	0

### The IOT

The Internet Of Things is where objects, animals and people are connected to the internet and share data with other connected 'things' automatically. Most devices that are connected to the internet that weren't once are called 'smart devices' and it allows them to have more functionality and be controlled remotely. The IOT is based around the sharing of data.

## What I need to know:

### Computer Systems (features, components and facts)

- What is a computer system?
- Describe the three main hardware components that make up a computer system?
- List the key functions of an operating system.
- Name the five most common operating systems.
- What is a computer program?
- What are the two types of computer program?
- What is a general purpose computer?
- What is the processor, and by what acronym is it commonly known as?
- What is RAM (primary storage) used for in a computer?
- What does RAM stand for?
- Name and describe three different types of secondary storage.
- What does volatile mean in relation to computer memory?
- What does it mean to state that secondary storage is persistent?
- What is hardware built from?
- What is a transistor?
- Why are 0 and 1 (binary digits) used?
- What is a logic gate?
- Describe an AND gate.
- Describe an OR gate.
- Describe a NOT gate.
- What are Truth Tables?
- What does IOT stand for?
- Describe what is meant by the IOT

- 1 What is a general purpose computer?
  - A computer found in a digital watch
  - A computer designed to perform more than one task
  - A small computer that forms part of a larger system
- 2 What is clock speed measured in?
  - Bytes
  - Hertz
  - Seconds
- 3 Which of the following are components of the central processing unit (CPU)?
  - Registers, read only memory (ROM) and cache
  - Resisters, read only memory (ROM) and arithmetic logic unit (ALU)
  - Registers, cache and arithmetic logic unit (ALU)
- 4 Which central processing unit (CPU) component makes logical decisions?
  - Control unit (CU)
  - Cache
  - Arithmetic logic unit (ALU)
- 5 What is a register?
  - A small amount of high speed random access memory (RAM) contained within the processor
  - A small amount of high speed read only memory (ROM) contained within the processor
  - A small computer that forms part of a larger system

- 6 What is a core?
  - A second processing unit within a control unit (CU)
  - A system that has many processors
  - A processing unit within a CPU
- 7 What are the three types of bus?
  - Address, control and instruction
  - Address, control and data
  - Address, data and instruction
- 8 Which of these statements about Von Neumann architecture is true?
  - Only data is stored in main memory
  - Only instructions are stored in main memory
  - Data and instructions are both stored in main memory
- 9 Which register holds the address of the next instruction to be fetched from memory?
  - Program counter (PC)
  - Memory address register (MAR)
  - Current instruction register (CIR)
- 10 What is hardware?
  - The physical parts that are attached to the motherboard
  - The logical components of a computer system
  - The physical components of a computer system

SCAN ME



### Do some research and then write a summary of each of the following keywords

Computer, system, device, program, software, instructions, hardware, data, general purpose, purpose-built, embedded.	architecture, hardware, RAM, ROM, CPU, secondary storage, specs, communication, memory, component.	fetch, decode, execute, read-only, volatile, non-volatile, persistent, BIOS, boot-up
transistor, switch, state, logic-gate, circuit, truth table, binary	software, program, application, system-software, operating system, driver, utility, compress, defrag, encrypt, user-interface.	internet, connected, data, sensor, innovation, cyber-security, breach, automated, exploit.

# History Knowledge Organiser

## WW2

### Key Dates

1939	Germany invades Poland
1940	Dunkirk evacuated and France surrenders to Germany
1940	Germany launches air attacks on Great Britain (The Battle of Britain and the Blitz begins)
1941	The Japanese attack the US navy in Pearl Harbor.
1944	D-day and the Normandy invasion.
1945	Germany surrenders and victory in Europe is declared
1945	Atomic bombs dropped on Hiroshima and Nagasaki, Japan by the US

### The Blitz



### Rationing

Rationing was introduced in the United Kingdom in September 1939, on petrol. It was steadily introduced on more and more goods as the war went on, starting with bacon, butter and sugar on 8th January 1940. Everybody in the UK was affected, including the Royal family and Churchill. The Government created a special 'Ministry of Food' to ensure the British people did not starve.

### Key Facts

<b>Triggers and causes</b>	Political and economic instability in Germany. The harsh conditions of the Treaty of Versailles Rise of power of Adolf Hitler and his alliance with Italy and Japan to oppose the Soviet Union
<b>Conflict between</b>	The Axis Powers (Germany, Italy, and Japan) and the Allied Powers (France, Britain, the U.S., the Soviet Union, and China)
<b>Casualties</b>	Over 60 million people died in World War II. Estimated deaths range from 50-80 million. 38 to 55 million civilians were killed, including 13 to 20 million from war-related disease and famine.
<b>Genocide</b>	German Nazis committed genocide against Jews and Romanis, people with disabilities, Poles, homosexuals, Jehovah's witnesses and Afro-Germans.
<b>Methods of warfare</b>	Nuclear power and missiles were used, modern concepts of covert and special operations. Submarines and tanks were also more heavily used. Encryption codes for secret communication became more complex. Germany used the Blitzkrieg fighting method.

### Key People

<b>Adolf Hitler</b>	Leader of the Nazi Party and Chancellor of Germany, 1933 - 1945 (also referred to as the Führer meaning leader).
<b>Winston Churchill</b>	UK Prime Minister, 1940 - 1945 (and again from 1951 - 1955). Made many inspirational speeches that helped Britain win the War.
<b>FDR</b>	US President, 1933 - 1945 (took the US into the war following the Pearl Harbor attacks). Died before the war finished.
<b>Stalin</b>	General Secretary of the Communist Party and Leader of the USSR, 1929 - 1953. He signed the Nazi-Soviet pact and then helped to defeat Germany after 1941.

### Key Vocabulary

<b>Allies</b>	Countries which fought on the British side (including: USA, Great Britain, France, Russia (1941-1945))
<b>Axis</b>	Countries which fought on the German side (including: Italy, Germany, Japan, Russia (1939-1941))
<b>Blitz</b>	Series of aerial bombing raids on the UK, mainly cities including London, Bristol and Nottingham
<b>Blitzkrieg</b>	Translated as 'lightning war'. German quick strike invasion of Western Europe
<b>Air raid</b>	A building to protect people from bombs dropped by planes
<b>Luftwaffe</b>	The German Air Force (responsible for the Blitz)

# History Knowledge Organiser

## WW2

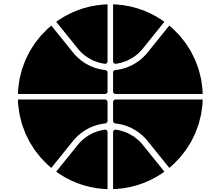
### Quiz questions

1. When did the war begin and end?
2. Where were British troops evacuated from?
3. Which US navy base did Japan attack?
4. What was the invasion of Normandy called?
5. Which two Japanese cities were atomic bombs dropped on?
6. What was created to oversee rationing?
7. What types of food were rationed?
8. When was the blitz?
9. Name two cities other than London that were bombed.
10. Which countries made up the allies?
11. Which countries made up the Axis powers?
12. Who were the four key leaders?
13. What does the word blitzkrieg mean?
14. What was the name for the German air force?
15. What types of new weapons were used in WW2?
16. Which country changed sides during WW2?
17. The treatment of the Jews, Poles, homosexuals and others was called a...?
18. How many people died in WW2?

**INNOVATION**

# KS3 | BASKETBALL SKILLS & TACTICS

Big picture: To develop knowledge and understanding of the complex skills in Basketball



## Shooting

"BEEF" is an acronym for the four major components of correct shooting.

It stands for **B**alance, **E**yes, **E**lbow, and **F**ollow-through.

### Balance

Feet are shoulder width apart for good balance. Your knees should be slightly bent.



### Eyes on the prize

Your elbow should be at a 90 degree angle. Your strong hand should be slightly under the ball with your weak hand at the side.



### Elbow

Your eyes should always be looking at the target (basket).



### Follow through

The shooting arm should extend towards the basket and flick the wrist as the ball is released.



## Lay Up

A layup is considered the easiest shot in basketball, because it's taken so close to the basket

- 1) Dribble close to the basket with your right hand approaching from the side.
- 2) Step towards the basket with your right foot.
- 3) Take off from your left foot.
- 4) Release the ball at the highest point aiming for the back board square.



A lay up sequence

## Marking (Defence)

Man Marking

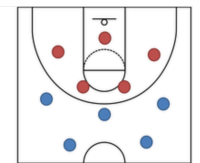
- Defenders are matched up against attackers.
- Players are matched up against size and ability.

Zonal Marking

- Defenders are responsible for an area in or around the D.
- If an attacker comes into that area they are responsible for that player.



Man Marking



Zonal Marking

## Rebound/Fast Break

A **rebound** in basketball is a player retrieves the ball after a missed shot.

A **fast break** offensive team rushes the ball up-court to get a good shot before the defence can get set.

# HOMework | SUPPORT | UNDERSTANDING

These questions, key terms and links can all be used for homework/home learning on this topic

## Key Questions



1. What is the acronym for the shooting technique?
2. Describe each part of the shooting technique?
3. Why is the lay up considered the easiest way to score?
4. Describe how to perform a lay up listing each teaching point.
5. Describe how to perform man marking.
6. Describe how to perform zonal marking.
7. Explain the difference between man marking and zonal marking.
8. What are the benefits of zonal marking?
9. What is a rebound?
10. Describe how to carry out a fast break.
11. Why might zonal marking be more favourable than man marking?
12. When would you use man marking in a game situation? You may need to research this.

## Key Terms



### **Shooting** - *noun*

An act of scoring or attempting to score .

### **Lay up** - *noun*

A one-handed shot made from near the basket, especially one that rebounds off the backboard.

### **Marking** - *noun*

The act of sticking with a player to avoid opposition from gaining any advantage

### **Zonal** - *noun*

Zonal marking is a defensive strategy with which teams prioritise controlling and defending spaces rather than matching the opposition player for player.

### **Rebound** - *noun*

the ball becoming available for possession by either opponent after an attempt to put the ball in the basket has been unsuccessful.

### **Skill** - *noun*

The ability to do something well

### **Tactic** - *noun*

An action or strategy carefully planned to achieve a specific end.

### **Strategy** - *noun*

A plan of action designed to achieve a long-term or overall aim.

## Youtube Links



Shooting Technique- [LINK](#)

Shooting and Rebound Drill [LINK](#)

Lay Up drill [LINK](#)

Man Marking [LINK](#)

Zonal Marking [LINK](#)

Rebound [LINK](#)

Fast Break [LINK](#)

Fast Break Drill [LINK](#)

# KS3 | LEADERSHIP HEART



Big picture: To lead with confidence creating practices from given scenarios to improve specific skills

Expectations	Scenario	Progression	Feedback
--------------	----------	-------------	----------

**Objective of Leadership**  
Leading group tasks including a warm up to build confidence.

**3 Stage warm-up**

**Pulse Raiser**  
This is light exercise that slowly increases the heart rate and gradually increases body temperature. For example, jogging, skipping, cycling.

**Stretch**  
Muscles is deliberately flexed or stretched in order to improve the muscle's felt elasticity and achieve comfortable muscle tone. The result is a feeling of increased muscle control, flexibility, and range of motion.

**Sports Specific**  
This will allow you to simulate at low intensity the movements you are about to perform at higher intensity during your chosen activity.

**How to the session started**

**Organising your group**  
Organise your group into the coloured bibs

**Lead as a group**  
Discuss as a group how you can lead the activity.

**Set up**  
Set up the activity based on the scenario given.

**How to end the session**

Consolidate - discuss the session and give feedback to students.

**Discussion**  
Discuss how you can progress the drill  
This involves taking a higher level of a desired skill.

This is a simple shooting drill with no pressure.

Adding a defender could be a progression in this drill to make it more difficult.

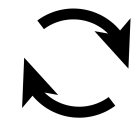
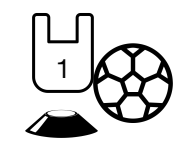
**Confidence**

Self confidence gives athletes the belief that they can do anything. Leaders need to be confident in their sessions and their abilities.

Feedback on how your group have performed based on the scenario. What went well or what could be improved?

**Peer Feedback**  
Peer assessment or peer review provides a structured learning process for students to critique and provide feedback to each other on their work.

**Self Feedback**  
This is the process of providing feedback for one self in detail on a performance or task in relation to a certain criteria. For example, analysing your own leadership performance and looking for areas to improve for next time.





# HOMework | SUPPORT | UNDERSTANDING

These questions, key terms and links can all be used for homework/home learning on this topic

## Key Questions



1. What is the acronym for the shooting technique?
2. What are the 3 components of a warm up?
3. What activities are involved in a pulse raiser?
4. What dynamic stretches can be performed during the 2nd stage?
5. What does sports/activity specific mean?
6. Why is it important to warm up correctly?
7. What is a scenario?
8. What are the key parts of the scenario?
9. How do you show self-confidence?
10. What is the difference between self and peer feedback?

## Key Terms



### Warm-Up - noun

A period or act of preparation for a match, performance, or exercise session, involving gentle exercise or practice.

### Pulse Raiser - noun

This is light exercise that slowly increases the heart rate and gradually increases body temperature

### Stretching - noun

Stretching is a form of physical exercise in which a specific muscle or tendon (or muscle group) is deliberately flexed or stretched in order to improve the muscle's felt elasticity and achieve comfortable muscle tone. The result is a feeling of increased muscle control, flexibility, and range of motion.

### Dynamic Stretching - noun

Dynamic stretching involves making active movements that stretch the muscles to their full range of motion.

### Feedback - noun

Information about reactions to a product, a person's performance of a task, etc. which is used as a basis for improvement.

### Confidence - noun

a feeling of trust in one's abilities, qualities, and judgement.

## Youtube Links



<https://youtu.be/HH32ZM0qm2s> LINK

<https://youtu.be/ejiuZsEVhrw> LINK

<https://youtu.be/tZg3H3y7sOg> LINK

<https://www.youtube.com/watch?v=G2HRt2-wZ-s> LINK

<https://www.youtube.com/watch?v=tmKReusF9MY> LINK

# KS3 | HANDBALL SKILLS & TACTICS



Big picture: I can officiate in most activities with confidence and apply tactics to my teams performance

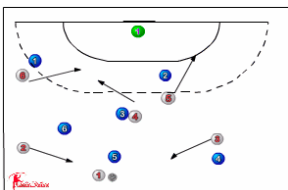
## Defensive strategies in handball

### Defending

Defending in handball is strategically preventing the opposition gaining a clear sight on goal and denying goal scoring opportunities. Individual defending techniques include blocking and tackling, while this should be progressed into defending in units and as a team.

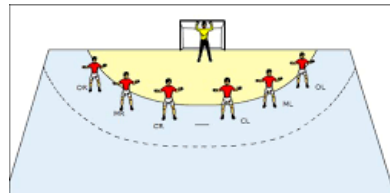
### Man to Man

In a man-to-man defence, those defenders are generally teammates staying close to their own assigned offensive player, and thus are often not in a good position to offer help should a weaker defender be eluded by the offensive player he is trying to guard.



### 6-0 defence

The 6-0 defence is the simplest form of defence for new beginners. All the players are standing just outside the goal line and the principle is, that no one is allowed to run behind the defending players.



### 5v1 - 4v2 defence

The 6-0 defence is the simplest form of defence for new beginners. All the players are standing just outside the goal line and the principle is, that no one is allowed to run behind the defending players.

## Defensive strategies in handball

### Attacking

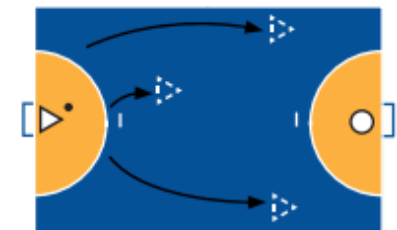
Attacking players aim to score by throwing the ball into the opposing goal. In possession of the ball..

- ... a player may take a maximum of 3 consecutive steps and may bounce the ball as much as desired. If the player catches the ball, they can not bounce it again and must take a maximum 3 further steps, pass or shoot.
- ... a player is not permitted to enter the goal area. Players may jump towards it (e.g. to shoot) providing the ball is released prior to landing inside the 6-metre line.

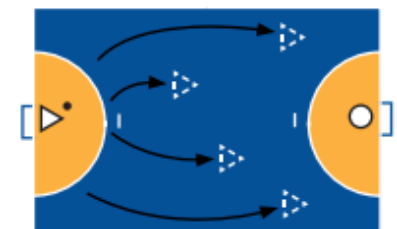


### Fast Breaks

A fast break is a swift attack from a defensive position in handball. Fast break should become a starting point for every attack in modern handball. Fast break can begin from the intercepted ball, after a free-throw, side-throw, referee's throw-in or goalkeepers-throw which occur as a result of different mistakes of the attackers, after a blocked shot or a ball won and after a successful goalkeeper's defence.



Transitional play in 3+GK - example



Transitional play in 4+GK - example

# HOMework | SUPPORT | UNDERSTANDING

These questions, key terms and links can all be used for homework/home learning on this topic

---

## Key Questions



1. What are you preventing when defending in handball?
2. What is a technique that can be used to defend in handball?
3. Explain the man to man strategy in handball.
4. Explain the 6-0 defence in handball.
5. Draw a picture of the 6-0 defence in handball.
6. What is the aim of attacking in handball?
7. Explain the dribbling and the jump shot rule.
8. When can body feints be used?
9. Why are body feints used?
10. What are fast breaks and how are these started?

## Key Terms



**Defending** -Defending in handball is strategically preventing the opposition gaining a clear sight on goal and denying goal scoring opportunities.

**Attacking** - making a forceful attempt to score or otherwise gain an advantage.

**Man to man strategy** - Man-to-man defence, or man defence, is a type of defensive technique used team sports in which each player is assigned to defend and follow the movements of a single player on offence

**6-0 defence** - All the players are standing just outside the goal line and the principle is, that no one is allowed to run behind the defending players.

**Dribbling**- take (the ball) forwards past opponents (in handball) by continuous bouncing.

**Jump shot** - a shot made while jumping.

**Body feints** - making the opponent think you are going to move in one direction so that you can quickly move the other way.

**Fast breaks** - a swift attack from a defensive position in handball.



## Key Vocabulary

**Embroidery foot-** this allows the fabric to be moved around the sewing machine easily.

**Reinforced/stabilised** – the fabric is strengthened using bondaweb or interfacing so that it doesn't crease when being sewn.

**Bobbin** – the piece of equipment that holds the lower thread

**Feed dog** – the part of the sewing machine that moves up and down under the fabric and moves the fabric along and through the machine.

## Instructions

1. Locate the screw that attaches the presser foot to the machine
2. Replace existing foot with free embroidery foot and screw tightly into place
3. Always make sure fabric used for free embroidery is either stretched in a frame or reinforced with interfacing
4. Before you start pull the bottom bobbin thread up

Answer the following questions in your reflection log.

Explain what an embroidery foot is used for.

Why is it important that the feed dogs are down when doing free motion embroidery?

Why does the fabric need to be stabilised when working on free motion embroidery?

Identify two other methods of stabilising fabric for free motion embroidery.

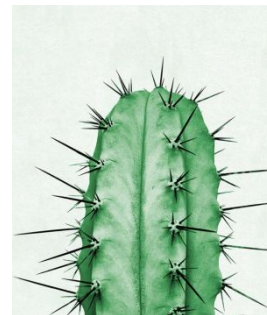
What is a bobbin?

### Extension task

Draw and label the parts of a sewing machine.

### Free machine embroidery challenge

Use free motion embroidery to recreate one of the sketches in your sketchbook, or use a biro to shade the image.

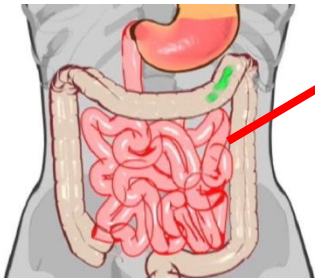


## Fibre – essential but not a nutrient.

**Provided by** – fruit, vegetables and cereals.

**Function** – prevents constipation, helps the passage of food through the digestive system (transit time).

**Lack of** – causes constipation, diverticulitis.



**Diverticulitis** is caused when **undigested** food or faecal matter gets stuck in the pouches, which in turn causes discomfort. This stops the circulation of blood to this particular section making the area vulnerable to an invasion by bacteria. This affects the bowels capacity to remove waste which results in constipation, diarrhoea, and cramps.

## Water - essential but not a nutrient.

**Provided by** – fruit, vegetables and drinks.

**Needed for** – it helps get rid of waste and regulates temperature.

**Lack of** – dehydration, chapped lips.



**Dehydration** is a condition that occurs when the loss of body fluids, mostly water, is greater than the amount that is taken in. With dehydration, more water is moving out of our cells and then out of our bodies than the amount of water we take in through drinking.

Use the information to answer the questions in your reflection log.  
Use full sentences.

1. What foods provide fibre in the diet?
2. What is the function of fibre in the diet?
3. What happens if you do not get enough fibre in the diet?
4. Along with constipation and cramps, what other symptoms may you have if you are suffering from diverticulitis?
5. Why is water important in the diet?
6. What foods provide water?
7. State two functions of water in the diet.
8. What happens if you do not have enough water?
9. Explain what dehydration is.



### KEY VOCABULARY/ TERMS

Learn the spelling of each word and look up any you do not know.

Fibre	Function	Constipation	Diverticular
Hydrated	Regulate	Dehydration	Fluid



### POP ART



#### Relevant dates

Mid 1950's to mid 1970's



#### Relevant Artists

Andy Warhol 1928 – 1987, Roy Lichtenstein 1923 – 1997,  
Peter Blake born 1932, Patrick Caulfield 1936 -2005,  
Richard Hamilton 1922-2011



#### Description of work

Emerging in the mid 1950s in Britain and late 1950s in America, pop art reached its peak in the 1960s. It began as a revolt against the traditional views on what art should be. Young artists felt that what they were taught at art school and what they saw in museums did not have anything to do with their lives or the things they saw around them every day. Instead they turned to sources such as Hollywood movies, advertising, product packaging, pop music and comic books as inspiration for their imagery.

### KEY VOCABULARY

**Pop Art** – The name given to a group of artists in the 1960's, who use everyday imagery as inspiration for their art work.

**Imagery** - The use of pictures to represent objects, ideas and actions in such a way that the appeals to the physical senses.

### WORK EXAMPLE



*Peter Blake -Sources of Pop Art V*

### ASSESSMENT CRITERIA

ASSESSMENT OBJECTIVE 1 - Develop ideas through investigations, demonstrating critical understanding of sources.

ASSESSMENT OBJECTIVE 2 - Refine work by exploring ideas, selecting and experimenting with appropriate media, materials, techniques and processes.

ASSESSMENT OBJECTIVE 3 - Record ideas, observations and insights relevant to intentions as work progresses.

ASSESSMENT OBJECTIVE 4 - Present a personal and meaningful response that realises intentions and demonstrates understanding of visual language.



**Write 3 relevant facts about Pop Art**

1.

2.

3.

**Write the definitions for these words**

Pop Art –

Imagery -

**Write about your likes/dislikes of Peter Blake's picture**

Likes:

Dislikes:

**Copy some of the pictures from Peter Blake's image in your book**

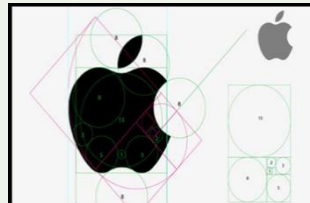
## Components of Graphic design

### What is Typography?

When looking at almost any magazine it is obvious that there are a wide and varied number of letter **styles / fonts** available for everyday use. There is a style of writing for almost every occasion from celebrations to formal events. More modern styles of writing are often named after the designer whereas many can be dated back hundreds of years. The different styles of writing are called **fonts** and they fall into four different categories .

### Using a Logo Grid

A **logo grid** or construction guide is a popular starting point for many designers looking to create a logo. The use of a grid system, especially for a design that might often have to be adapted to **different sizes**– very large or small – can help you create something that has **visual harmony**, an **organized aesthetic** and **professional presentation**.



## KEY VOCABULARY

**Font, Grid, Serif, Script, Decorative, kerning**

### Four main font styles

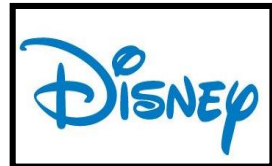
**Serif** – Serifs are the small lines tailing from the edges of letters and symbols. Serifs are easier to read in printed works like books and magazines and are often used in the logos of old, established and successful companies.



**Sans-serif** – is a typeface that does not have the small projecting features called 'serifs' at the end of the letters or symbols. Sans-serif is easier to read on a screen and are often used in the logos of modern and popular companies.



**Script (Script)** – is a typeface that represents hand written words and letters. It is difficult to read on paper and on screen however it is often used in invitations and is used in the logos of companies that product hand crafted traditional products.



**Decorative (Decorative)** – this typeface uses serif and sans-serif fonts and adapts them to make them look more interesting and original. Decorative is a very artistic style, it is often very popular with younger people because it is modern and creative.



### ASSESSMENT CRITERIA

**Competence** - How you complete and improve your work using the project activities.

**Technical ability** – experiment with all of the different components of graphic designing explaining every aspect in detail.

## Components of graphic design

**Why is typography important in graphic design?**

.....  
.....  
.....

**How does a logo grid help create a successful logo?**

.....  
.....  
.....

**What font style is the easiest to read in print form?**

•

**What font style is used to reflect tradition and is difficult to read?**

•

**Why is kerning important in typography?**

.....  
.....

**What does the 'sans' in sans serif mean?**

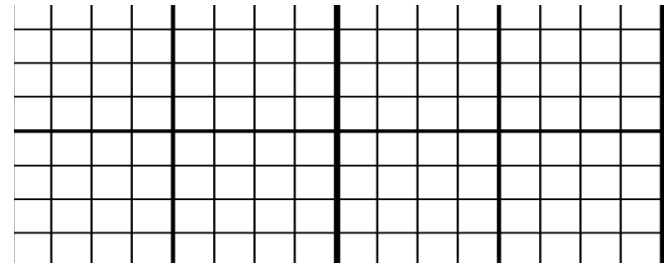
•

**Give three examples of logos that use decorative text.**

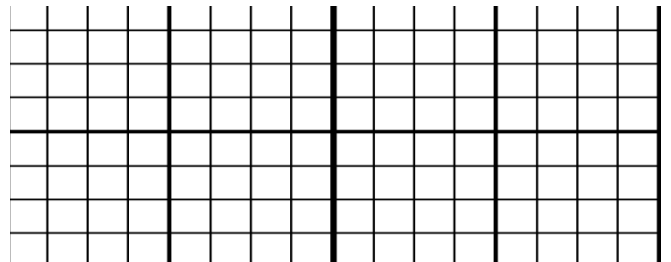
- 
- 
- 

Using the logo grids below use three of the font styles to experiment with the FCAT logo.

**Serif**



**Sans serif**



**Decorative**

