

# **Knowledge Organisers**

## **1<sup>st</sup> Summer Term**

**Science**

**History**

**Geography**

**Art**

**PSHE**

**French**

**Computing**

**R.E.**

**P.E.**

**Swimming**

**Music**

### **Class 3 – Year 5 & 6**

# Knowledge Organiser - Light & Electricity- Science- Year 6

## How is light reflected?

Reflection is when light bounces off a surface, changing the direction of a ray of light. All objects reflect light; smooth and shiny surfaces reflect all the rays of light at the same angle, rather than scattering the rays of light like rough or dull surfaces.



## Key Knowledge

I know that light travels in straight lines and we need light to see.

I understand how we see.

I know how shadows are formed and that they have the same shape as the objects that cast them.

I understand how voltage affects the brightness of a bulb.

I understand and can investigate variations in how components function.

Component	Symbol
battery	
Cell	
Bulb	
Switch (open)	
Switch (closed)	
Ammeter	
Voltmeter	
Motor	
Buzzer	
Resistor	
wire	

Key Vocabulary	Definition
<b>electricity</b>	energy made available by the flow of electric charge through a conductor
<b>insulator</b>	A substance that does not transmit heat
<b>conductor</b>	a substance that readily conducts e.g. electricity and heat
<b>component</b>	A part that can be separated from or attached to a system
<b>circuit</b>	an electrical device that provides a path for electrical current to flow
<b>Negative charge</b>	having a surplus of electrons; having a lower electric potential
<b>Positive charge</b>	having a deficiency of electrons; having a higher electric potential
<b>voltage</b>	An electrical force that makes electricity move through a wire
<b>Reflect</b>	Throwback something without absorbing it
<b>Light Source</b>	An object that gives off light
<b>Shadow</b>	A shape produced by an object blocking the light source
<b>transparent</b>	An object that allows light to pass through
<b>translucent</b>	An object that allows some, but not all light to pass through
<b>opaque</b>	An object that does not allow light through



As the light source moves higher in relation to the object, the shadow gets shorter. As the light source moves lower, the shadow gets longer.









Advantages	Series
	<ul style="list-style-type: none"> <li>• Easy to use</li> <li>• Easy to add more power to the circuit</li> <li>• Doesn't over heat easily</li> <li>• Components all have same current</li> </ul>
Disadvantages	
	<ul style="list-style-type: none"> <li>• If one component breaks the whole circuit won't work</li> <li>• Increasing number of components increases resistance</li> </ul>

## Knowledge Organiser- World War One – History - Year 6

Key vocabulary	Definition
Imperialism	When a country increases its power and influence by colonising (taking over) another country.
Alliance	A union or relationship formed between countries/ organisations, to benefit them both
Mechanised warfare	The use of armoured fighting vehicles in modern warfare. Sometimes referred to as 'armoured' or 'tank' warfare.
Chemical warfare	The use of the toxic chemicals to kill or injure enemies. In WWI, Chlorine, Phosgene and Mustard Gas were used.
Trench warfare	Where opposite sides of the war fight from trenches dug into the ground, facing each other
No Man's Land	The land between the trenches of opposing armies
Home Front	The Home Front refers to life in Britain during WWI
Conscription	A law that says that if you are able to fight in the war, you have to. During WWI, by 1916, all men aged 18-41 had to go to war and fight for their country.
Armistice	An agreement made to stop fighting a war, also referred to as a 'truce'
The war was fought between:	
<b>The Triple Alliance</b>	Germany, Austria-Hungary and their allies
<b>The Triple Entente</b>	France, Britain and Russia

28th June 1914, Archduke Franz Ferdinand is assassinated	8th August 1914, the Defence of the Realm Act is passed	1916, British Summer Time is introduced	28th June 1919, Germany signed the Treaty of Versailles
4th August 1914, Britain declares war on Germany	1st July– 18th November 1916, the Battle of the Somme took place	11th November 1918, Germany signed an armistice and the war ended	

Key Knowledge	
I understand the causes of World War One.	
I understand that World War One was fought on land, in the air and at sea.	
I know what life was like for soldiers on the Western Front in the trenches.	
I understand what life was like on the Home Front, I know it was a 'total' war and that everyone was involved in the war effort.	
I understand the consequences of World War One and that the peace treaty was the Treaty of Versailles.	
Key People:	
Archduke Franz Ferdinand (heir to the throne of Austria-Hungary who was assassinated) 	David Lloyd George (PM 1916-1922) 
Kaiser Wilhelm II (The last German Emperor) 	Herbert Henry Asquith (PM 1908-1916) 
Zeppelins	Submarine
	




## Year 5 - Knowledge Organiser – Geography – New Zealand

Key Vocabulary	Definition
<b>Southern Hemisphere</b>	The half of Earth that is south of the Equator.
<b>Volcano</b>	A crater or vent through which lava, rock fragments and gases erupt from the Earth's crust.
<b>Geyser</b>	A hot spring in which water boils, sending a tall column of water and steam into the air
<b>Tectonic plate</b>	A massive slab of rock that moves over a liquid mantle
<b>Earthquake</b>	A sudden violent shaking of the ground, typically causing great destruction, as a result of movements within the earth's <u>crust</u> or <u>volcanic</u> action.
<b>Predator</b>	An animal that naturally preys or hunts other animals.

Key Knowledge
New Zealand is a country in the Southern Hemisphere made up of two islands
New Zealand is located on a plate boundary and so has active volcanoes and geysers
Maori were the first people to live in New Zealand and have their own customs and language.
New Zealand has many animals and plants that are only found on this island
The South Pacific has many small islands including Easter Island.



Wellington	Geyser	All Blacks	Kiwi	Easter Island
				
Wellington has been the capital city of New Zealand since 1865	Pohutu Geyser, which erupts up to 15 times a day and shoots hot water around 30m skywards.	The New Zealand national rugby team known as the All Blacks	A native flightless bird which is the national symbol of New Zealand	The distance between Easter Island and New Zealand is 7084km,

## Knowledge Organiser - Design and Accessory- DT- Year 5

Key Vocabulary	
pattern	a shape drawn to exact shape and size, used to assist in cutting out
seam	where fabric is joined together
fabric	cloth produced by weaving or knitting textile fabrics
specification	describes what a product has to do
tacking	large running stitches to hold pieces of fabric together
working drawing	detailed drawing containing the information needed to make a product but is updated as changes are made
Victorian sampler	a piece of embroidery or cross-stitch to demonstrate needlework
embroidery	sewing decorative designs onto fabric
reinforce	to strengthen or support something

Key Knowledge
I know different fabrics have different uses.
I can identify a range of stitches.
I can create a design using stitches.
I can sew a Victorian sampler.

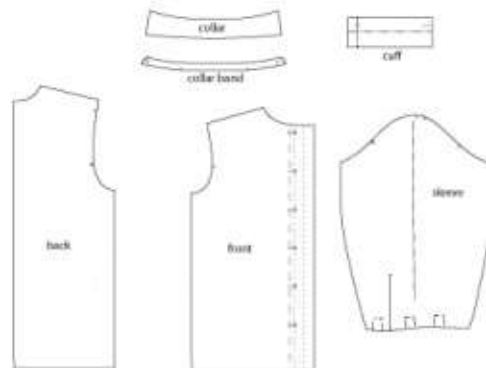


embroidery

Victorian Sampler



Pattern for a shirt





## Knowledge Organiser – PSHE – Relationships - Year Five

Key Vocabulary	
<b>Self-esteem</b>	A feeling of being happy with your own character and abilities.
<b>Attributes</b>	To regard a quality or feature as belonging to somebody/something.
<b>Characteristics</b>	A typical feature or quality that something/somebody has.
<b>Compromise</b>	An agreement made between two people or groups in which each side gives up some of the things they want so that both sides are happy at the end.
<b>Pressure</b>	The act of trying to persuade or to force somebody to do something.
<b>Jealousy</b>	Feeling angry or unhappy because somebody you like or love is showing interest in somebody else.
<b>Bullying</b>	The use of strength or power to frighten or hurt people. This can be face to face or through the use of technology.
<b>Safety</b>	To feel safe and protected from danger or harm.

Key Knowledge
I have an accurate picture of who I am as a person in terms of my characteristics and personal qualities
I understand how it feels to be attracted to someone and what having a boyfriend / girlfriend might mean.
I understand how to stay safe when using technology to communicate with my friends.

**Stop**

Think about how you're feeling. Angry? Upset? Disappointed? Let down?

Try to calm these feelings so you can think about what's gone wrong.

**Get Ready**

Look at each other's point of view.

Listen to hear the other person see it.

Think calmly about how you see it.

Work out what's gone wrong.

**Mend The Friendship**

Stop early if you need to (even if it's hard).

Agree how to put it right.

Do something fun together.

Have a special "make friends" sign, gesture or phrase (such as "Hi! Hi again, say 'make friends, make friends...').



Reflective questions
Ask me this...
What does friendship mean to you?
How do you know who you are talking to online?
What are good ways I can keep myself safe when using technology?

# Knowledge Organiser Year 6 French Unit 11: Le sport

Key Language	English
le football	football
le tennis	tennis
le vélo	cycling
le roller	roller skating
la natation	swimming
l'équitation	horse riding
la danse	dance
la gymnastique	gymnastics
Tu aimes quels sports?	What sports do you like?
Tu préfères quels sports?	What sports do you prefer?
J'aime/j'adore (le ski)	I like/I love (skiing)
Je n'aime pas/Je déteste ..	I don't like/I hate.....
Je préfère (la danse)	I prefer dance
mais/et	but/and
Pourquoi?	Why?
parce que	because
C'est amusant	it's fun
C'est facile	It's easy
C'est passionnant	it's amazing
C'est ennuyeux	It's boring
c'est cher	It's expensive
c'est difficile	It's difficult
c'est fatigant	It's tiring



J'aime la natation parce que c'est amusant.



J'adore la gymnastique parce que c'est facile.

Je préfère l'équitation parce que c'est passionnant.



## KEY QUESTIONS

Tu aimes quels sports?

What sports do you like?

Qu'est-ce que tu préfères?

What do you prefer?

Pourquoi?

Why?



## Knowledge Organiser- Data & Information - Introduction to Spreadsheets - Year 6

Key Vocabulary	Definition
Cell:	the building blocks of a spreadsheet. Each cell holds one piece of data.
Row:	a horizontal collection of cells. Each row is identified by a number on the left side of the row.
Column:	a vertical collection of cells. Each column is identified by a letter at the top of the column.
Spreadsheet:	the entire collection of data. Most spreadsheet programs like Excel, refer to this as a worksheet or workbook. Google just calls it a spreadsheet.
Tab:	an organizational unit in a spreadsheet. You can think of them sort of like different pages in the spreadsheet.
Formula:	an equation based on multiple cells.
Function:	formulas that are built into your spreadsheet software are called functions.
Manual Input:	user inputted data into a cell. The difference between manually inputted data versus a cell with a computed value will become increasingly clear over this course.
Output:	a cell with a value that is calculated based on data in other cells. A function is an example of an output cell.

### Key Knowledge

- To be able to create a data set in a spreadsheet
- To be able to build a data set in a spreadsheet
- To explain that formulas can be used to produce calculated data
- To apply formulas to data, including duplicating
- To create a spreadsheet to plan an event

# SPREADSHEET FEATURES

A spreadsheet is a computer model that performs calculations and displays data.

**Row**

A row is a horizontal block of cells. Each row is labelled numerically. The highlighted row is labelled 2.

**Cell reference**

The cell reference displays the location of a cell or group of cells.

**Formulae**

Formulae are not displayed on the spreadsheet. They are displayed in the formulae bar.

**Example Spreadsheet**

	A	B	C	D
1	Candidate no.	Name	Score	Result
2	1082	Jennifer	25	PASS
3	1212	Azhar	35	PASS
4	1932	Stephen	40	PASS
5	1324	Sam	18	FAIL
6	1453	Paul	29	PASS

**Columns**

A column is a vertical block of cells. Each column is labelled alphabetically. The highlighted column is labelled C.

**Cell and Font Format**

	A	B	C	D
1	Name	Score	Grade	Result
2	John	154	D	Failed
3	Alexis	185	C	Passed
4	Isabella	210	A	Passed
5	Oliver	132	F	Failed

Within spreadsheets it is possible to change the font style, colour and size. It is also possible to change the background and border colour of cells.

**Alignment**

≡

≡

≡

⊕

Left Align    Centre    Right Align    Merge & Centre

The Merge & Centre tool is used to combine cells and centre text. It is useful for headings.

**Number**

1-9  
Number

1/4  
Fraction

£  
Currency

12:31  
Time

05/05/12  
Date

%  
Percentage

It is important to select the correct number format when using spreadsheets. Users are also able to select the number of decimal places displayed.

**Graphs & Charts**

	A	B
1	Grade	Number of people
2	A	4
3	B	20
4	C	15
5	D	22

Graphs and charts provide visual representations of tabulated data. They are generally easy to interpret and help identify patterns and trends.

**Sorting**

	A	B	C	D
1	Pupil ID	First name	Surname	Score
2	1223	Jennifer	Row	64
3	1432	Isabella	Young	71
4				
5				

Column: PupilID    Sort on: Value    Order: A to Z

Cells can be sorted according to rules set for one or more columns.

**Formulae and Functions**

+ - \* / IF

SUM AVERAGE ROUND

MIN MAX COUNT

There are various formulae and functions available in spreadsheets.



## R.E. Year 6 Summer 2 Knowledge Organiser

Enquiry: What is the best way for a Sikh to show commitment to God?

Key vocabulary	Definition
Sikh	A person who follows the religion of Sikhism
Commitment	To promise to be loyal to someone or something
The 5 Ks	Khalsa Sikhs wear five symbols – called the five Ks, or Panj Kakka - to show their devotion to Sikhism. Kangha- comb, kirpan- sword, kara – bracelet, kachera- shorts and Kesh – uncut hair
Amrit Ceremony	The Amrit initiation ceremony involves the drinking of Amrit (sugar water stirred with a dagger) in the presence of 5 Khalsa Sikhs as well as the Guru Granth Sahib
Guru Granth Sahib	Sikh Holy Book
Gurdwara	Sikh worship place
Sewa	Helping others – could be donations of money, good or time

### Key Knowledge

I understand the term commitment.

I know Sikh's dress in a way to show commitment to God

I know the 3 Golden rules of Sikhism and can explain what Seva means.

I can explain why it is important to Sikhs to show their commitment to God and can describe different ways they choose to do this.




I can give my opinion on what I think Sikhs should do to show commitment to God and explain why

I know that religions can influence how people live



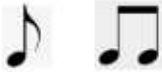



Key Vocabulary	Definition
<b>Streamline</b>	To ensure that the body travels through the water in as straight a line as possible so as not to create any more turbulence than necessary.
<b>Synchronised</b>	To do something together/at the same time.
<b>Retrieve</b>	To collect an object from the bottom of the swimming pool.

Skill development
Swim competently, confidently and proficiently over a distance of at least 25m.
Use a range of strokes effectively (for example, front crawl, backstroke and breaststroke).
Perform safe self-rescue in different water-based situations.

Skills	
<b>Breaststroke breathing</b>	
<b>Streamline</b>	
<b>H.E.L.P position</b>	



Key Vocabulary	Definition
Time signature	The rhythm following a clef
Key signature	The key of a piece of music depends on the flats and sharps in the music.
Minim	
Crotchet	
Quaver	
Semi-quaver	
DAW	Digital Audio Workstation
Live sound	Live music, played at present
Digital sound	Recorded sound

Songs covered

- Fanfare For The Common Man
- Do What You Want To
- It's All About Love
- Let's Write A Song
- Sunshine On A Rainy Day

**Key Signature: C major** — there are no sharps or flats in the key signature



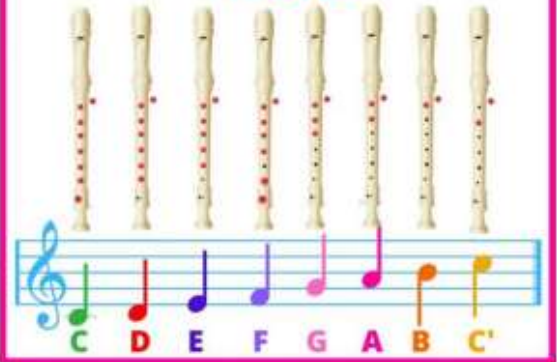
**Key Signature: G major** — there is one sharp in the key signature



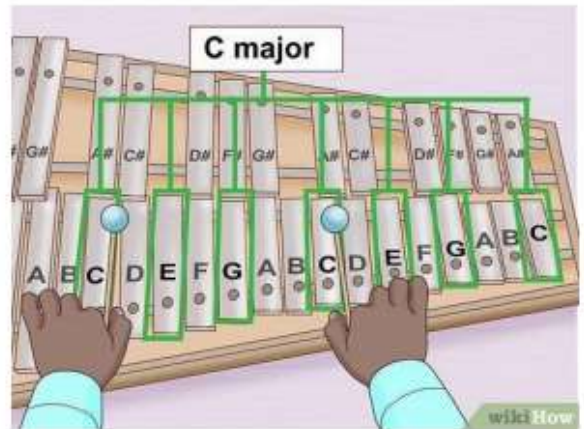
**Key Signature: D major** — there are two sharps in the key signature



Recorder NOTES Chart 1




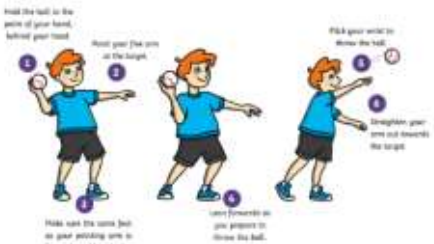
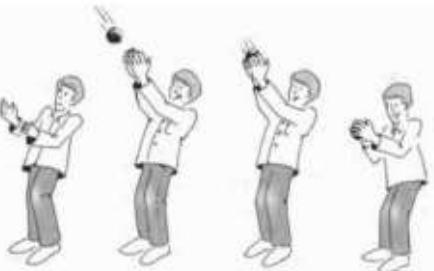
2/4 Time Signature



## Knowledge Organiser – PE – Rounders – Year 5

Key Vocabulary	Definition
<b>Abide</b>	Act in accordance with the rules.
<b>Backing up</b>	To move position to support.
<b>Collaborative</b>	To work jointly with others.
<b>Umpire</b>	A person who makes sure the rules are followed.
<b>Short barrier</b>	Creating a barrier with hands in front of feet to stop a ball travelling on the ground at slow speed.
<b>Tactic</b>	A plan or strategy.
<b>Track</b>	To move your body to get in line with a ball that is coming towards you.
<b>Stance</b>	The body position you have taken.

Key Skills	Development
<b>Attacking</b>	Aim to score as many points as possible by getting your players around the bases. When you strike the ball, try and aim for gaps in the field to score more points. When the ball is good, try and hit it high and far to avoid fielding players.
<b>Defending</b>	Field the ball quickly and accurately to make sure they opponents do not get many points. Work as a team to run opponents out.

Skills	
<b>Ready position</b>	
<b>Throwing</b>	
<b>Catching</b>	

### Rules

### OUTS

- A player will be called out if they are:
- Caught out: fielders catches a batted ball
  - Run out: their teammate runs to the same post as them
  - Stumped out: fielder stumps the post that the batter is running to
  - They run inside the bases

### Tactics

Tactics will help your team to achieve an outcome e.g. when fielding spread out to make so that you have a better chance of catching a batter out or stopping them from scoring.

### HOW TO SCORE

- One rounder = ball is hit and live batter runs to 4th
- A half rounder = ball is hit and live batter gets to 2nd
- A half rounder = ball is not hit and live batter gets to 4th
- A half rounder = two consecutive no-balls