

Year 6 Curriculum HT1



PSHE
CBeing me in my world

E-safety
Digital footprints

Commando Joe
Mission focus:
Respect, fairness, determination, inquiry, pride, persistence, courage, honesty and selflessness

Personal Development
Wider Curriculum Clubs Available
sports, yoga, choir, football, netball, art, drama, cooking, french, computing, sewing and dodgeball, archery and chess

Trips and Visits
Visit to the Museum of Science and Industry as part of History topic on The Industrial Revolution

No Outsiders
Promoting diversity

English

Inspirational Text Class Reader

Genres for writing:
Narrative
Letters
Diary
Non-chronological report

Within writing, Year 6 will be focusing on:

- Writing multi-paragraph stories to advance through plot, maintaining atmosphere, starting a new paragraph at the opportune time
- Appreciating the characters and audiences impact upon the formality and structures.
- Short sentences, repetition and other grammatical choices to build tension; vocabulary and imagery to contribute to atmosphere and character
- Use of parenthesis in non-chronological reports, diaries and narrative
- Introduce meaningful dialogue to convey character or advance action within a scene

Poetry
The poem Year 6 will be studying and learning to recite is 'The Road Not Taken' by Robert Frost

Maths

To know and use number:

- Read numbers up to 10,000,000
- comparing and ordering numbers up to 10,000,000
- Rounding
- Negative numbers

To add, subtract, multiply and divide:

- problem solving using written methods of addition and subtraction
- Multiplying numbers up to 4 digits by 2 digits
- Dividing numbers up to 4 digits by 2 digits
- Factors and multiples
- Recognising prime numbers up to 100
- Squares and cubes
- Order of operations
- Mental calculations
- Reasoning from known facts

Mental Maths

MA6: Number Bonds 94.22 + 94.22 = 91.76 + 97.68 46 31.68	MA2: Round & Adjust 45.2 + 49.9 = 95.1 45.2 + 50 = 95.2 95.2 - 0.1 = 95.1
MA1: Multiplication 45.2 + 49.9 = 95.1 45.1 0.1 49.9 45.1 + 50 = 95.1	MS4: Counting On £12.05 - £11.99 = 1p +1p £12.05 £12.06
MS1: Multiplication 44207 + 10000 = 54207 44 10000 11000 44000 + 2000 = 46000	MA3: Partitioning £64.30 - £24.30 = £40.00 £64.30 £24.30 £40.00 £40.00 £24.30 £64.30

Science

The Year 6 Science topic this half term is Animals Including Humans.

Children will learn about the circulatory system and the impact of diet and exercise on our bodies

RRSA articles: 24, 29, 31 and 33

History

Year 6 will be learning about The Industrial Revolution this half term, looking more widely at the Victorian Era and completing a local study on the role of Manchester in the Industrial Revolution

RRSA articles: 2, 6, 14, 24, 27, 29 and 32

RE

What is the best way for a Muslim to show commitment to God?

RRSA articles: 2, 29 and 14

Music

Miss Marsden will be teaching music to Y6 this half term. The children will be learning to play the clarinet.

RRSA articles: 13, 29 and 31

PE

On Mondays, Year 6 will be playing hockey.
On Thursdays, Year 6 will be playing netball

RRSA articles: 24, 29 and 31

D&T

Year 6 will complete a construction project learning about mechanical systems and making Victorian toys

RRSA articles: 24, 29 and 31

Spellings

Year 6 will be reviewing spelling rules from the KS2 curriculum

Computing

Year 6 will be learning about computer systems and networks in their computing lessons. They will use laptops to learn about communicating effectively using the internet.

RRSA articles: 13, 29 and 17

French

Mrs Sunley is teaching French to Year 6 this half term. They will be learning:

- To describe feelings
- Numbers up to 60
- Daily routines
- How to tell the time

RRSA articles: 13, 29 and 31

Art

Mrs Cahill will be teaching Art. They will look at the artist Eileen Agar and creating mixed media artwork inspired by the industrial revolution



Knowledge Jigsaw

Year 6 Computing HT1



What we already know

The **World Wide Web** is only one part of the internet.

- You can visit websites and webpages on the World Wide Web.
- Files can be shared on the internet.
- The internet can be used to send emails.

A **website** is a collection of pages under one name.
A **web page** is a single page or document on the World Wide Web.

We can share media and files on the World Wide Web (e.g. images, and sounds).

Websites all have their own **web address**.

Most websites are hosted in large **data centres**.

You can access the World Wide Web on lots of different devices.

You can search for information on the World Wide Web by typing a search into the URL bar or into a search engine.

A **search engine** is a software system that is designed to carry out searches on the World Wide Web for particular information specified in the search query.

These are all types of **search engines** on the World Wide Web:



1989: Sir Tim Berners-Lee invented the World Wide Web to make it easier to share documents with other scientists.

1991: The first website was launched.

1994: The first widely used search engine (Yahoo!) was launched.

1998: Google was founded

How search engines work:

- Search engines use web crawlers to create an index of the web.
- They take a copy of the web pages that they visit to build up the search engine's index, which is stored on the search engine's servers.
- The indexes are stored in huge data centres around the world.

Search engines will tell you how many results there are for your search term.

You can refine a search by adding more detail to your search. E.g. 'dog' could be refined to 'black Labrador'.

Ranking is the process that search engines use to determine the order in which search results will be displayed.

Search engine optimisation (SEO) is applied to websites to help them rank as highly as possible.

Searching the web is done by:

Searcher: you, me, and other people using browsers to find web pages

Search engine: Google, Bing, DuckDuckGo, etc.

Web content creators: companies and organisations, e.g. BBC, your school, a local running club, etc

These things affect what is looked at on the web.

Searcher	Search engine	Web content creator
<ul style="list-style-type: none"> • The choice of search engine • The words used in the search phrase/term • The links that they click on 	<ul style="list-style-type: none"> • The rules that their web crawlers follow • The rules that their page rank uses • Other rules that the search engine uses 	<ul style="list-style-type: none"> • The terms, text, and headings used on the pages • The links in and out of a page

You can't find everything on the web.

E.g.

Personal information is kept private so is not accessible by searching on the internet.

Thoughts, feelings, love, friendship are hard to find on the World Wide Web.

Search results that are **sponsored** or **adverts** are ranked highly because companies have agreed to pay search engines for their links to be prominent for certain search terms. Providing this advertising space is how search engines make money.

Communication is to share or exchange information by speaking, writing or using another medium.

You can communicate with other people using the internet e.g. email, video call, instant messaging, group chats (whatsapp), blogs, Twitter.

Public – something in open view

Private – involving a particular person or group only.

Types of internet communication:

Type	Public or private?	What is shared? ²	One-to-one or one-to-many? ²	Are there adverts?	One-way or two-way? ²	Age limit
SMS	Private	Text	One-to-one	No	Two-way	No
Email	Note ⁴	Audio	One-to-one	No	Two-way	No
Video call	Private	Video	Both	No	Two-way	No
WhatsApp	Private	Text, audio, video, images	Both	No	Two-way	13
Blog post	Public	Text, images	One-to-many	Sometimes	Two-way	Note ⁵
YouTube video	Public	Video	One-to-many	Yes	Two-way	Note ⁶
Twitter	Public ¹	Text, video, images	One-to-many	Yes	Two-way	13
BBC Newsround	Public	Video	One-to-many	No	One-way	No

Knowledge Jigsaw

Year 6 Science HT1



What we already know

The human body needs a **balanced diet** to work properly. You need the right amount of food from the different food groups.

Fruit and vegetables - Contain fibre which helps us to digest food

Carbohydrates – give us energy e.g. bread, potatoes, pasta

Proteins – help our bodies to repair e.g. fish, meat, nuts, seeds, eggs and cheese

Fats – help store energy for our bodies e.g. butter, cheese, fried foods

Humans require exercise to keep healthy

Blood

Blood is made up of liquid and solids.

The liquid part is water and protein (**plasma**). The solid part includes **white blood cells, red blood cells and platelets**.

Plasma carries the solid parts of the blood through the body. Red blood cells carry oxygen through the body. White blood cells fight infection.

Platelets help you to stop bleeding when you get hurt.

The main vessels are **arteries, veins and capillaries**.

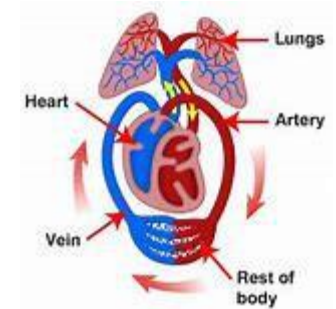
Arteries take blood away from the heart and veins in take blood in.

The Heart & Circulatory System

The circulatory system includes the heart, lungs, veins, capillaries and arteries that run through the body.

Children can name:

- Left and right ventricles
- Left and right atrium
- Valves
- Aorta
- Pulmonary artery



Animals

Some animals have different circulatory systems to humans.

- A human has a four chamber heart.
- A fish has a two chamber heart.
- Reptiles and amphibians have three chamber hearts.

Exercise

Exercise is very important to maintain a healthy heart. The average resting heart beat per minute is 60 (bpm). Some athletes have resting heart beats between 30—40 bpm.

Diet

Healthy diets can look different for different types of people depending on their individual needs; weight lifters and ballerinas have very different diets.



Drugs

Drugs are substances that have an effect on the body when it enters the system. There are legal and illegal drugs.

Drugs, alcohol and smoking can impede the body's ability to focus and function normally.

Knowledge Jigsaw

Year 6 History HT1



What we already know

Order and date key events in British History:
 Romans left – 410AD
 Anglo-Saxons – 410 – 1066
 Great Fire of London – 1666
 The Industrial revolution happened when people stopped being farmers and started to work in factories.
 Quarry Bank Mill is a local mill which was operational during the Victorian Era
 D.S Lowry (a local artist) lived during the Victorian Era and is famed for depicting the Industrial Revolution in his paintings.

The Victorian Era

The Victorian Era was 1837-1901.
 Queen Victoria was Queen for 63 years. She died at 81 years old.
 During this time, there were huge changes in transport, factories, education and social/medical care.
 She was the longest reigning monarch in British history until Queen Elizabeth II.
 She was a liked Queen because she was involved with the arts, social movement, she encouraged the improvement of health care and she was the monarch when transport was improving and Britain was changing.



Quarry Bank mill was built in 1784 and was owned by Samuel Greg. Lowry was born in Stretford, Manchester 1887. He painted the city and working class people.

What was life like for children during the Victorian Era?

Children were treated differently in the past compared to today. Laws are in place to protect children.
 Schools were for the rich.
 Most children never went to school and struggled to read or write.
 Children from rich families were typically taught at home by governess until the age of 10 years old.
 Poor children still went to work.
 Children's health was not good because of diseases.
 In 1870 the Education Act meant all children could attend school

The Industrial Revolution

The Industrial Revolution marked a period of development in the **latter half of the 18th century** that transformed largely rural, agrarian societies in Europe and America into industrialized, urban ones.

Instead of people or animals, some industries began using **water** and **wind** as sources of energy.

New machines were invented that could work much **faster** and on a **bigger scale** than human hands.

How did industry develop in Manchester?

Manchester was recognised for its manufacturing and trading of cotton and known as 'Cottonopolis'

Joseph Whitworth and Richard Arkwright were important figures in engineering developing the cotton industry in Manchester

Industrialisation polluted the city and caused major health problems for the city's workers and residents.

Sir Edwin Chadwick investigated the living conditions of the poor, finding a direct link between living conditions, disease and life expectancy.

How did transport develop?

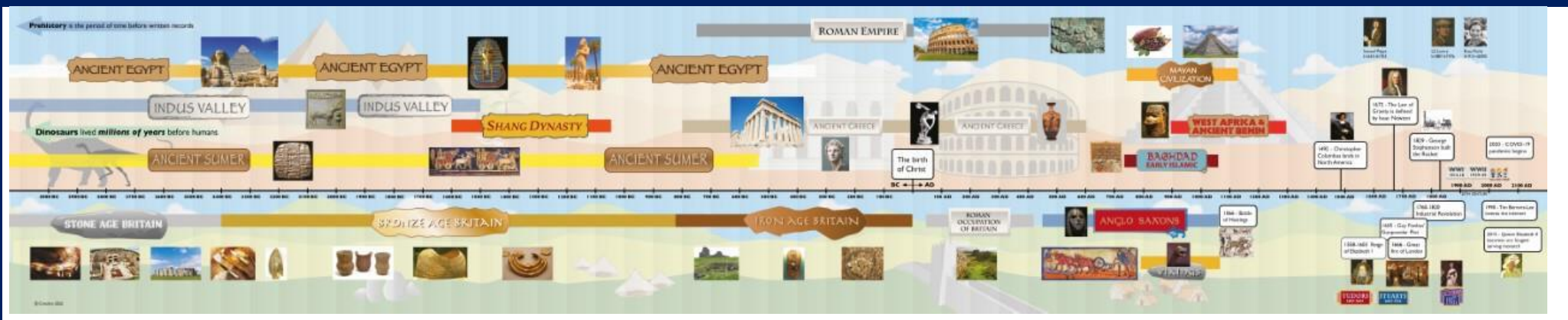
Transport changed during the Industrial Revolution.

Transport needed to be quicker and be able to travel further.

Between 1845 and 1900, £3 billion was spent on the construction of Britain's railway network.

Canals were used to transport large amounts of goods.

The Manchester Ship Canal opened in 1894 and was the largest river navigation canal in the world, transporting cotton and textiles between the docks of Liverpool and the mills of Manchester.



Knowledge Jigsaw

Year 6 PSHE HT1



What we already know

Know how to set personal goals

Understand my rights and responsibilities as a citizen of my country
Empathise with people in this country whose lives are different to my own

Understand my rights and responsibilities as a citizen of my country and a member of my school

Make choices about my own behaviour because I understand how rewards and consequences feel

Understand that my actions affect me and others

Understand how an individual's behaviour can impact on a group

Understand how democracy and having a voice benefits the school community and know how to participate in this

Identify my goals for this year, understand my fears and worries about the future and know how to express them.

Feel welcome and valued and know how to make others feel the same



Know that there are universal rights for all children but for many children these rights are not met.

Understand my own wants and needs and can compare these with children in different communities.



Understand that my actions affect other people locally and globally.

Understand my own wants and needs and be able to compare these with children in different communities.



Make choices about my own behaviour because I understand how rewards and consequences feel and I understand how these relate to my rights and responsibilities.

Understand that my actions affect myself and others; I care about other people's feelings and try to empathise with them.

Understand how an individual's behaviour can impact on a group.

Contribute to the group and understand how we can function best as a whole.

Understand how democracy works and having a voice benefits the school community.

Understand why our school community benefits from a Learning Charter and how I can help others to follow it by modelling it myself.



Our Discovery Question:

What is the best way for a Muslim to show commitment to God?

Knowledge

There are five pillars of Islam, which are five obligations that every Muslim must follow in order to live a good and responsible life:

1. The Shahadah - a statement which is repeated many times a day 'There is one God, Allah, and Muhammad is his prophet'
2. Salat - prayer, 5 times a day
3. Zakat - Giving 2.5% annual savings to charity
4. Fasting – sawm. This commemorates the giving of the Quran to Muhammad by Angel Gabriel. The fast lasts a month and is during daylight hours
5. Hajj – Pilgrimage to Makkah in Saudi Arabia once in a lifetime

Muslims believe that they must pray five times a day to show their belief and be reminded of God so they do not forget about Him.

Muslims believe they can pray anywhere but many will go to the mosque on Friday, the Muslim holy day.

Personal Reflection

I can reflect on the reasons for showing commitment and the difficulties and positive outcomes that come with it.

I can discuss the difference between duty and choice and the effect this has on people and how they live their lives.



Engineering

Brief: To design, make and evaluate an automata toy for a 6 year old child to play with.

What I already know

Materials have different properties that lend themselves to different purposes. Materials are tested and/or discussed during the design process.

Movement can happen electronically and through the use of levers and pulleys.

A design brief is specific in stating the product, the intended user and the product's purpose. A product specification is more specific and focuses on what a specific user requires.

Key Vocabulary – tools & equipment

cam	A shaped component used to turn one form of movement into another. Circular cams create continuous motions and non-circular cams create varied motions.
rotational movement	A circular motion
linear movement	A straight motion: up and down or left and right.
butt joint	A joining technique
follower	The component that is moved up and down or rotated by the CAM.
slide	The housing (case) for the follower that allows it to move.
dowel	A cylindrical wooden rod used to hold components together.
panel pins	Rounded and lightweight pins used to fix small joins in place.

Design

The intended user of the product must always be consulted about size, colour, function when designing a product for them to use. This communication develops a **design specification** so that the brief becomes more specific.

Different shaped CAMS create different types of movement.



CAMS turn one form of movement into another in a machine, such as a car engine.

When a circular cam is placed at the edge of another circular CAM at a 90° angle, it will rotate with a continuous movement.



A butt joint is a technique in which two pieces of material are joined by simply placing their ends together without any special shaping.

Make

To ensure everyone is safe, always inspect tools for cracks, chips and wear. Always tie back long hair and tuck ties out of the way.

When using clamps, tighten and loosen a G-clamp and spreader clamps by turning or pressing.

Junior hacksaws are used to cut wood into straight lines. They cut when pulled towards user or backwards (look at the teeth position on the blade).

Sandpaper is used to smooth cut wood and avoid splinters.

Panel pins are a quick and easy method to join two pieces of wood.

A junior pin hammer can be used to knock the pins in place. Pin hammers are lightweight and ideal for tapping pins into place. They must not be used as a lever because they are not strong enough.

Evaluate

A successful evaluation of a product will question whether the item is fit for purpose and if it is aesthetically pleasing. *Does it work? Does it look good?*

A product should be evaluated by its maker, considering the design and make process, but it must also be evaluated by its intended user.

Evaluations of made products must consider any benefits or challenges in relation to costs and time constraints.

Knowledge Jigsaw

Year 6 French HT1



What we already know

Sport and accessories
 The verb avoir
 Adjectives
 Hobbies
 Animals
 Numbers up to 60
 Toussaint
 Jean de la Fontaine
 Weather
 Some adjectival agreement
 Ask and answer questions about someone's identity
 Use adjectives to describe a planet
 Ice cream flavours and ordering

To write extended sentences

Use adjectives in sentences and recognise differences between males and females.



To use numbers

Know how to use numbers to complete calculations.

Dix plus douze est vingt-deux

$$10 + 12 = 22$$

Know the sound spelling of 'ingt' as 'an'.

Time/ L'heure

Know how to tell the time for o'clock

Quelle heure est- il?
 Il est...



Il est une heure



Il est quatre heures

Il est midi
 Il est minuit

To know that t is a silent letter in the word est
 To know that q is pronounced as k

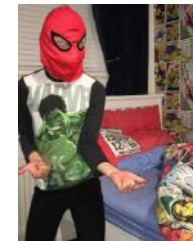
Routine/ La routine quotidienne

Je me réveille	I wake up
Je me lève	I get up
Je m'habille	I get dressed
Je me brosse les dents	I brush my teeth
Je me douche	I shower
Je mange mon petit déjeuner	I eat my breakfast
Je vais à l'école	I go to school

To ask and answer questions about daily routine

Quand tu te lèves?

Je me lève à sept heures.





Industrial Revolution in Britain

Styal Quarry Bank Mill is one of the earliest landmarks of the Industrial Revolution, built in 1784. It was a weaving and cotton spinning mill. The mill's machinery comprised of many mechanical objects such as chains, cogs and wheels.



Weaving

Weaving is a textile craft. The loom is the equipment used in weaving. You move the weft threads over and under the warp threads when weaving. Weaving can be done by hand or by machine. Many materials can be used to weave with e.g. yarn, paper, fabric, string, raffia, etc.



Artist

To look at the timeless artwork of the Surrealist artist, Eileen Agar, who was born during the reign of Queen Victoria. To learn about her fascination for exploring different art disciplines such as photography, watercolour, pen and ink and collage.



To look at how she creatively used mixed-media in her artwork. To learn about how she combined image, pattern and texture.

Observational Drawing

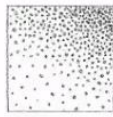
An observational drawing is when you draw something that is in front of you. To explore line and tone to create observational drawings of iron objects that date from the time of the Industrial Revolution. To learn how to use different techniques; hatching, cross-hatching and stippling to create tone.



Hatching



Cross-hatching



Stippling

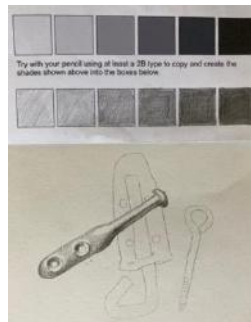


Bleeding

To know how to 'bleed' fine-liner to create tone. To know how to use fine-liner and diluted coffee to create observational drawings of rusty, iron objects that look old.

Mono-printing

When we create mono-prints, we use mark-making to create one-off prints. When we make mono-prints, using graphite, we create an impression of a drawing. To know how to add tone to a mono-print.



Mixed-Media

We can use and combine different techniques and materials to create outcomes which explore time and place, such as the Industrial Revolution in Britain.





What we already know

The saxophone and clarinet are instruments that belong to the woodwind family. Woodwind, brass, string and percussion are families of instruments in the orchestra.

Music is divided up into bars, separated by bar lines and notes sit on the staff. When playing the sax/clarinet we read music written in the treble clef.

The beginning of music tells us the time signature, dynamic marking, tempo and key signature.



Performing

Perform pieces on A and B controlling steady air flow and tonguing notes. Perform Two at Twilight and B Groovy. Learn how to fit a reed.

Learn G and perform pieces combining A, B and G. Copy phrases played by teacher developing listening skills, embouchure and techniques and the use of the diaphragm. Perform a round in 3/4 groups.

Develop articulation, phrasing and playing with expression in varied tempos. Perform pieces including a duet in 3/4 time. Copy short melodic phrases on A, G and F.

Learn C understanding that less/more fingers placed on finger holes alters the pitch of the instrument. Perform Clown Dance, Rigaudon (a duet) and other pieces with piano and backing track accompaniment.

Performing

Perform Merrily, There Was a Man and Theme from New World Symphony. Learn E.

Perform compositions in small groups.

Perform a whole class composition with piano accompaniment.

Sing and perform warm-ups making a connection with the diaphragm to support breathing and embouchure.

Perform increasingly complex rhythmic and melodic phrases reading and understanding traditional notation.

Composing

Compose short melodic and rhythmic phrases in 3/4 and 4/4 time.

Compose a piece of music in 4/4 time on the staff using C, B, A and G, tied notes and rests.



Use a 'rhythm clock' to compose melodies on B, A and G.



Theory of Music

Understand what a duet, trio, quartet, quintet is in music. Identify instruments from the orchestra in listening extracts e.g. the baritone, tenor, alto and soprano saxophone in a video performance of Cantaloupe Island by Herbie Hancock.

Understand dynamics in music and how they can be written and interpreted as a musician to convey a mood.



Understand that a round is a piece played at different entry points producing harmony between instruments.

Read and understand time signatures, tempo markings and repeat signs in music.



Listening and Appraisal

Listen and appraise Miss Marsden performing saxophone and clarinet pieces e.g. Take Five by Dave Brubeck and The Pink Panther by Henry Mancini.

Comment on and discuss peer performances referring to the elements of music (e.g. tempo, dynamics, structure), articulation, posture and phrasing.

Listen and appraise an orchestral performance of Dvorak's Symphony No.9 written in the Romantic era.

Develop an understanding of the history and development of musical styles e.g., the role of the saxophone and clarinet in jazz.

