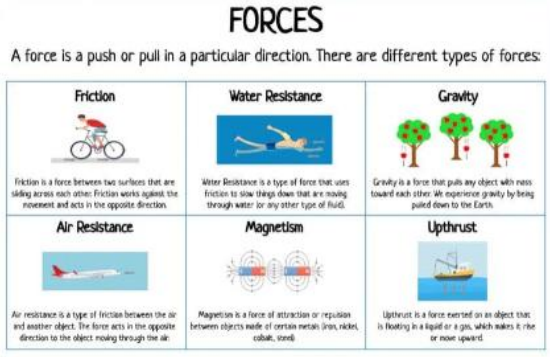
# Curriculum Journey

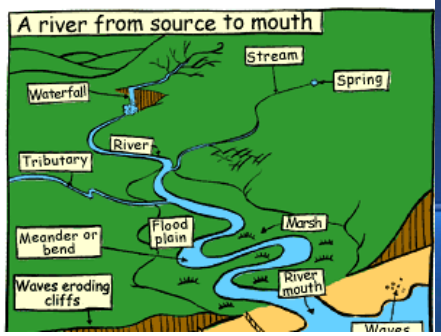
# Year 5 – Autumn 2

**Areas of learning**
In **Geography** we will learn about rivers, how we use them and how we manage them.
In **Science** we will learn about forces; gravity, air resistance, and how we gain a mechanical advantage from simple machines.
In **D&T** we will be making a marble run, and in **Computing** we will be using computer aided design to help us design it.












| 5Cs focus | |
|---|---|
| Care | We will identify bullying behaviours and celebrate difference |
| Challenge | We will spot patterns and see links in number |
| Collaboration | We will work together in groups to communicate through movement |
| Courage | We will develop our independence by planning and presenting a self-directed project |
| Creativity | We will explore different art styles to create a self-portrait |

<table>
<tr><th colspan="2">ENGLISH</th></tr>
<tr><td>Guided Reading<br>To be able to give synonyms for key words in text<br>To be able to predict the meaning of unknown words with increasing accuracy<br>To be able to identify relevant points in a text<br>To be able to use quotes from a text to support thinking (Point, justify<br>To be able to compare two different characters<br>To be able to use show and tell to infer characters feelings, thoughts and motives<br>To start to explain why author’s choice and the effect it has on the reader</td><td rowspan="2">Grammar<br>To consolidate previously taught grammar (capital letters, full stops, apostrophes, commas in lists)<br>To know how to punctuate relative clauses accurately<br>To know how to punctuate parenthesis accurately<br>To know to put commas after adverbial openers<br>To know how to use pronouns to avoid repetition<br>To be able to identify tense</td></tr>
<tr><td rowspan="2">Writing<br>Non-chronological Report on The Solar System<br>To maintain an appropriate form and style for the genre<br>To adapt writing for different audiences<br>To use paragraphs appropriately in non-narrative writing<br>To build cohesions through linking sentences and adverbials<br>To use a range of simple, compound and complex sentences in their writing<br>To vary sentence openers<br>To ensure the consistent and correct use of tense throughout a piece of writing<br>To know how to use relative clauses and punctuate them appropriately<br>To be able to use technical and formal language<br>To be able to use topic sentences<br>To be able to parenthesis and punctuate appropriately with brackets, dashes and commas<br>To proof read and edit writing including spelling and grammatical errors as well as improving what is written</td></tr>
<tr><td>Spelling<br>To be able to spell all the 3 and 4 spelling words correctly<br>To spell some of the year 5 and 6 words correctly<br>Prefixes sym- and sys-<br>Root morpheme cret, temper, cess, sper<br>Suffix – -ous</td></tr>
<tr><td></td><td>Handwriting<br>To cursively join handwriting ensuring children are using appropriate capital and lower case letters and joining letters with diagonal and horizontal strokes.<br>To ensure that capital letters are not joined<br>Focus on tall and long letters</td></tr>
</table>

| MATHS | |
|---|---|
| **Negative Numbers**<br>To represent a change story using addition and subtraction symbols<br>To interpret numbers greater than and less than zero in different contexts<br>To read and write negative numbers<br>To explain how the value of a number relates to its position from zero<br>To identify and place negative numbers on a number line<br>To interpret sets of negative and positive numbers in a range of contexts<br>To use their knowledge of positive and negative numbers to calculate intervals<br>To explain how negative numbers are used on a coordinate grid<br>To use their knowledge of positive and negative numbers to interpret graphs | **Multiplication and Division**<br>To multiply a two-digit number by a single-digit number using partitioning and representations (no regroups, one regroup and then two regroups)<br>To multiply a two-digit number by a single-digit number using expanded multiplication (no regroups)<br>To multiply a two-digit number by a single-digit number using short multiplication (no regroups)<br>To multiply a two-digit number by a single-digit number using expanded multiplication (regrouping ones to tens)<br>To multiply a two-digit number by a single-digit number using short multiplication (regrouping ones to tens)<br>To multiply a two-digit number by a single-digit number using expanded multiplication (regrouping tens to hundreds)<br>To multiply a two-digit number by a single-digit number using short multiplication (regrouping tens to hundreds)<br>To multiply a two-digit number by a single-digit number using both expanded and short multiplication (two regroups)<br>To use estimation to support accurate calculation<br>To multiply a three-digit number by a single-digit number using partitioning and representations<br>To multiply a three-digit number by a single-digit number using expanded and short multiplication (no regroups, one regroup and then multiple regroups)<br>To use estimation to support accurate calculation<br>To divide a two-digit number by a single-digit number using partitioning and representations (no remainders, no exchanging then with exchanging and finally with exchanging and remainders)<br>To divide a two-digit number by a single-digit number using short division (no exchanging, no remainders then with exchanging and finally with exchanging and remainders)<br>To divide a three-digit number by a single-digit number using partitioning and representations (no exchanging, no remainders then with exchanging and finally with exchanging and remainders)<br>To divide a three-digit number by a single-digit number using short division (with exchanging and remainders)<br>To solve short division problems accurately when the hundreds digit is smaller than the divisor<br>To use efficient strategies of division to solve problems |

| SCIENCE -Forces | Geography – How are Rivers Managed and Used in the UK |
|---|---|
| • Know what gravity is and its impact on our lives<br>• Identify and know the effect of air and water resistance<br>With prompting, to plan different types of scientific enquires to answer questions<br>• Identify and know the effect of friction<br>(Compare shoe friction on different surfaces)<br>With prompting to regcognise and control variables where necessary<br>Take precise measurements and record data in a table<br>• Explain how levers, pulleys and gears allow a smaller force to have a greater effect<br>• Explore the effects of air resistance by observing how different objects such as parachutes and sycamore seeds fall.<br>Ask their own questions about the scientific knowledge that they are studying.<br><br>• Explore the effects of friction on movement and find out how it slows or stops moving objects.<br>• Find out how scientists, for example, Galileo Galilei and Isaac Newton helped to develop the theory of gravitation.<br>A force may push or pull something, making it move. Forces may make things start, stop, speed up or slow down.<br>Gravity is a type of force which pulls things towards the centre of the earth. E.g. A ball falling to the ground.<br>Air resistance is a type of friction between the air and another material, it affects how fast or slowly objects move through the air. E.g. An aeroplane flying through the air.<br>Water resistance is another type of friction which slows objects down when moving through water. Eg. Trying to run through water<br>Isaac Newton helped develop the theory of gravity | **Locational Knowledge**<br>• Know, name and locate the main rivers in the UK, Thames, Severn, Trent, Forth, Shannon<br>• The longest rivers in Britain are the Severn (220 miles long) and the Thames (215 miles long).<br>**Place Knowledge**<br>• The river Thames flows through Teddington<br>**Human and Physical Geography**<br>• To know and label the main features of a river<br>• The start of a river is called the source and the end is called the mouth.<br>• Many rivers and streams join together before they reach the mouth of the river. The smaller rivers and streams are called tributaries.<br>• Revisit the water cycle<br>• Identify processes and landforms along a river<br>• Rivers erode their banks to create meanders this can sometimes result in oxbow lakes<br>• To know how rivers are used around the world /UK?<br>• Recognise and explain how flooding affects communities<br>• Is flooding becoming more common as a result of climate change?<br>• The Thames Barrier, the bridge and lock in Teddington was built to manage the transport and avoid flooding<br>• Recognise and explain how human activity affects rivers<br>**Geographical Map Work**<br>• Use digital mapping to identify landforms along main rivers in the UK.<br>• Know, name and locate the main rivers in the UK, Thames, Severn, Trent, Forth, Shannon<br>**Geographical Fieldwork**<br>• using standard field sampling techniques appropriately (e.g. taking water samples from Teddington Lock)<br>• collecting, analysing and presenting quantitative data in charts and graphs |

| D&T | Computing – Computer Aided Design |
|---|---|
| ***Problem: A child needs a marble run which is free standing.***<br>• To investigate what makes a good marble run.<br>• Brackets are the use of triangular shapes to strengthen a structure<br>• Scoring cardboard makes it easier to bend or fold.<br>• flange joints are used to connect pipes and tubes.<br>• Tabs are used to join two pieces of cardboard together.<br>• To know cardboard can be engineered by a range of techniques<br>• To develop ideas through cross sectional drawings from an existing design specification<br>• To Use computer-aided design to develop and communicate their ideas<br>• To use skills and knowledge to make a clear plan and list of resources<br>• To use the skills I have learnt to make my marble run evaluating and testing as I go<br>• To evaluate the final prototype and know how to theme a project for the intended user. | Aut 2- 3D modelling Tinker CAD Marble Run<br>1. To know that you can work in three dimensions on a computer<br>2. To identify that digital 3D objects can be modified<br>3. To recognise that objects can be combined in a 3D model<br>4. To be able to combine objects in a design<br>5. To be able to construct a 3D model based on a design<br>6. To be able to evaluate and improve a 3D model |
| **PE - Hockey** | **PE - Dance** |
| 1. To develop dribbling to beat a defender.<br>**Dribbling**: know that dribbling in different directions will help to lose a defender.<br>2. To develop sending the ball using a push pass<br>3. To develop receiving the ball with control.<br>**Sending & receiving**: know that not having a defender between myself and a ball carrier enables me to s&r with better control.<br>4. To be able to move into space to support a teammate.<br>**Space**: know that by moving to space even if not receiving the ball will create space for a teammate.<br>**Tactics**: understand the need for tactics and identify when to use them in different situations.<br>5. To develop using an open stick (block) tackle and jab tackle to gain possession of the ball.<br>6. To apply the rules and skills you have learnt to play in a hockey tournament.<br>**Rules**: understand and apply rules whilst playing and officiating<br>• Organise and lead warm up activities and games<br>• Help others to change in order to improve performances<br>• Accept decisions<br>• Compromise with other teams/individuals | • To create a dance using a random structure and perform the actions showing quality and control.<br>I can accurately copy and repeat set choreography.<br>I can choreograph phrases individually and with others considering actions and dynamics.<br>• To understand how changing dynamics changes the appearance of the performance.<br>I can confidently perform different styles of dance, clearly and fluently, showing a good sense of timing.<br>• To understand and use relationships and space to change how a performance looks.<br>• To copy and repeat movements in the style of rock 'n' roll.<br>I can lead a group through short warm-up routines.<br>I can refine the way I use actions, dynamics, relationships and space in my dance in response to a stimulus.<br>• To work with a partner to copy and repeat actions keeping in time with the music.<br>I can suggest ways to improve my own and other people's work using key terminology.<br>• To work collaboratively with a group to create a dance in the style of Rock 'n' Roll.<br>- Organise and lead warm up activities and games<br>- Help others to change in order to improve performances<br>- Accept decisions<br>- Compromise with other teams/individuals |

| R.E - How do religious groups contribute to society and culture across the world? | PSHE –Celebrating Difference |
|---|---|
| ***Living the Faith* – Organisations: Christian Aid, Salvation Army, CaFOD, Tearfund Muslim Aid/Islamic relief/Penny Appeal/ Zakat**<br>I can describe some practical ways that Christians and Muslims might care for the world<br>• To understand the significance of Zakah for Muslims in the Qu'ran<br>**Zakat**: is a pillar of Islam and it means giving money away to charity<br><br>Know 3 practical ways in which Charities care for the world<br>- Provide essentials eg food, clothing and blankets<br>- Provide shelter<br>- Give families a goat or sheep<br>- Provide tools for gardening | L1- To know that cultural differences sometimes cause conflict<br>Children will be able to recall at least two examples of cultural difference that sometimes cause conflict.<br>L2 - I understand what racism is<br>Children will be able to give a definition of racism, know what it is and why it is unacceptable<br>L3- To know that rumour spreading and name-calling is a form of bullying on and offline<br>L4 – To know that bullying can be direct and indirect<br>Children will be able to give at least two examples of direct and indirect bullying and classify these correctly.<br>L5- To know how my life is different with people in the developing world<br>Children will understand what the developing world means.<br>L6- To understand a different culture from my own<br>Know how their life is different from the lives of children in the developing world and draw at least two comparisons |
| | **Art – Making it Personal -** Frida Kahlo |
| | **Practical**: Layering, shading and composition can be used to create an imaginative and well-balanced scene.<br>**Theoretical**: Artists use colour, composition and symbolism to guide the viewer and communicate meaning in their artwork.<br>**Disciplinary –** How do artists use their imagination to create meaningful and imaginative artworks?<br><br>1. To explore Frida Kahlo's work, symbolism and surrealism<br>2. To know layering and blending techniques for colour pencil<br>3. To plan, compose and sketch a surrealist self portrait<br>4. To know how to layer and blend colour pencils with pastel to add colour and depth<br>5. To be able to refine use of colour and add detail in a surrealist self portrait<br>6. To evaluate the use of composition, layering and shading |