



Autumn 2 YEAR B

Key Stage: Upper Juniors

Topic: Energy and Sustainability

Autumn 2 Year B		
English	Maths	
	Year 5	Year 6
<p><u>Read all about it!</u></p> <p>The MSC Napoli disaster links to our topic 'Energy and Sustainability'. Children engage with real articles from the time of the accident and learn to adopt the language of newspaper reports in order to write their own articles about a shipping disaster of their choice.</p> <p><u>Key Objectives</u></p> <ul style="list-style-type: none"> READING: predicting what might happen from details stated and implied WRITING: distinguish between the language of speech and writing <p><u>Balanced arguments</u></p> <p>Linked to their geography topic, children present the pros and cons of wind farms by using drama and debate to explore different viewpoints. They learn to write a non-biased, balanced argument, presenting both sides of the debate.</p> <p><u>Key Objectives</u></p> <ul style="list-style-type: none"> READING: distinguish between statements of fact and opinion WRITING: using a wide range of devices to build cohesion within and across paragraphs <p><u>A Christmas Carol</u></p> <p>In this classic heritage text, children learn to see the world through Scrooge's eyes. Writing in the first person, they consider language choices to portray Scrooge's character as his personality changes throughout the book. Children adopt the style and formality of Dickens, using previous knowledge from 'Great Expectations'</p> <p><u>Key Objectives</u></p> <ul style="list-style-type: none"> READING: summarising the main ideas drawn from more than one paragraph, identifying key details that support the main ideas WRITING: noting and developing initial ideas, drawing on reading and research where necessary 	<p>Number: Multiplication and Division <i>Continued from Autumn One</i></p> <ul style="list-style-type: none"> Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates <p>Fractions</p> <ul style="list-style-type: none"> compare and order fractions whose denominators are all multiples of the same number identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, $2/5 + 4/5 = 6/5 = 1 \frac{1}{5}$] add and subtract fractions with the same denominator, and denominators that are multiples of the same number multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams <p>Decimals</p> <ul style="list-style-type: none"> read and write decimal numbers as fractions [for example, $0.71 = 71/100$] recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents round decimals with 2 decimal places to the nearest whole number and to 1 decimal place read, write, order and compare numbers with up to 3 decimal places solve problems involving number up to 3 decimal places 	<p>Number: Multiplication and Division <i>Continued from Autumn One</i></p> <ul style="list-style-type: none"> perform mental calculations, including with mixed operations and large numbers use their knowledge of the order of operations to carry out calculations involving the 4 operations use their knowledge of the order of operations to carry out calculations (BIDMAS) solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why solve problems involving addition, subtraction, multiplication and division reason from known facts <p>Fractions</p> <ul style="list-style-type: none"> simplify fractions; use common multiples to express fractions in the same denomination compare and order fractions, including fractions > 1 add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions multiply simple pairs of proper fractions, writing the answer in its simplest form divide proper fractions by whole numbers <p>Decimals</p> <ul style="list-style-type: none"> associate a fraction with division and calculate decimal fraction equivalents identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places multiply one-digit numbers with up to 2 dp by whole numbers use written division methods in cases where the answer has up to 2dp solve problems which require answers to be rounded to specified degrees of accuracy

	Computing	History	Geography
Description	Children will use Google Sheets and understand how to use formulae to solve calculations		Children learn about energy and sustainability, using Iceland as a case study (continued from Autumn 1)
NC Objectives	<ul style="list-style-type: none"> Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content Select, use and combine a variety of software Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content 		<ul style="list-style-type: none"> Understand the location and characteristics of a range of the world's most significant human and physical features. Develop use of geographical knowledge, understanding and skills to enhance their locational and place knowledge.
Substantive Knowledge	<ul style="list-style-type: none"> Children will learn how to create a Google Sheet that calculates the sum and total Children will be able to format data that has been collected using conditional formatting 		<p>Locational knowledge</p> <ul style="list-style-type: none"> Understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom, a region in a European country, and a region within North or South America <p>Human and physical geography</p> <ul style="list-style-type: none"> Describe human geography, including: types of settlement and land use, economic activity, and the distribution of natural resources including energy
Disciplinary Skills	<ul style="list-style-type: none"> Understand how data is collected Understand how to use simple formulae Understand how to edit and form different cells in a spreadsheet Understand how to write a spreadsheet formula Understand how data is collected 		<p>Geographical skills and fieldwork</p> <ul style="list-style-type: none"> Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied Use the eight points of a compass, four and six-figure grid references, symbols and key to build their knowledge of the United Kingdom and the wider world Use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies
Vocabulary	log in, log out, mouse, pointer, cursor, username, password, taskbar pop up, track pad, keyboard, enter, backspace, copy, paste, screen, account, Google Document, Document, page, computer, laptop, graph, sum, spreadsheet, cells, format, columns, rows, formula, data, table, publish, collate, average, filter, conditional format, validation		Climate sustainability renewable human impact green energy wind farm
Assessment	Children will collect their data from Google Forms and export this to a Google Sheet		Essay about energy and sustainability, using Iceland as a case study

	Art	DT	Science
Description		Children design, create and evaluate a cams toy	Children learn about the solar system and how celestial bodies relate to each other
NC Objectives		<ul style="list-style-type: none"> • use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose • evaluate their ideas and products against design criteria • understand how key events and individuals in design and technology have helped shape the world • apply their understanding of how to strengthen, stiffen and reinforce more complex structures • understand and use mechanical systems in their products 	<ul style="list-style-type: none"> • Describe the movement of the Earth, and other planets, relative to the sun in the solar system • Describe the movement of the moon relative to the Earth • Describe the sun, Earth and moon as approximately spherical bodies • Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky
Substantive Knowledge		<ul style="list-style-type: none"> • Design - work confidently in a range of contexts; describe the purpose and audience; model ideas using prototypes; use annotated sketches • Make - select suitable tools and equipment; order stages of the making process; measure, mark out and cut materials accurately; use techniques that involve a number of steps • Evaluate - consider views of others (including intended users); critically evaluate the quality of design • Technical knowledge - Know how mechanical systems such as levers and linkages create movement; know that mechanical systems e.g cams, pulleys or gears create movement 	<p>Our Solar system</p> <ul style="list-style-type: none"> • A Solar system is a collection of planets, which orbit a star. • There are a huge number of stars in space. • Our solar system consists of 8 planets, many of those planets have moons which orbit around them. • Earth's moon is not a planet but is a satellite which orbits Earth. • Understand the phases of the moon. • The 'moonlight' we see is the sun's light reflected off the lunar surface. • Our solar system can be represented with a model, but it isn't possible to draw it to scale. • The planets and moons are rotating (spinning) • The time it takes one planet to rotate is called a day (Earth=24hrs) • The time it takes a planet to complete one orbit around its star is called a year. On Earth this is 365.25 days • The solar system is with a massive collection of stars called the galaxy • Know that the Earth spins around an imaginary line through its centre called an axis and that this axis is tilted relative to the Earth's orbit • Know that night and day are the result of the Earth rotating on its axis • Know the sun does not move – the earth is rotating • Know that the tilt of the Earth towards and away from the Sun's light as the Earth orbits the Sun leads to the seasons • Know that a solar eclipse occurs when the Moon is between the Sun and the Earth, casting a shadow on the Earth; a lunar eclipse occurs when the Earth is between the Sun and the Moon, casting a shadow on the Moon • Know the Earth, Moon and Sun are roughly spherical. • Know planets may have moons orbiting them. <p>What Else is in the Solar System?</p> <ul style="list-style-type: none"> • Stars are huge balls of gas that produce vast amounts of light and heat. • Asteroids are lumps of rock that orbit a star • Comets are objects that are made of ice • Know that humans have sent man-made satellites into orbit
Disciplinary Skills		<ul style="list-style-type: none"> • To apply the substantive knowledge of the existing products and materials to create their own toy that is fit for purpose, functional and aesthetically pleasing • Make thoughtful improvements based on critical evaluation • Apply learning from other subjects to help design, make and evaluate quality products that work 	<ul style="list-style-type: none"> • Know how to use primary and secondary sources evidence to justify ideas • Know that evidence can refute or support their ideas and how to find it • Know how to recognise where secondary sources will be most useful to research ideas and begin to separate opinion from fact • Know how to use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas • Know how to talk about how scientific ideas have developed over time.
Vocabulary		Cam movement mechanism push pull rotate slider component	planet, rotate, spherical, axis, orbit, solar system, scaled, sustain, ellipsoid, gnomon, eclipse
Assessment		Assess final product against the design criteria	Headstart assessment on Earth and space

	PE	Music	Religious Education	
Description	Indoor- Fitness Outdoor- Invasion Games (Hockey) PPA- OAA	To listen to, perform and create music in a calypso style. Children learn to play a calypso bass line and create and perform their own version	Description	INCARNATION Children will learn about the Christian belief that Jesus is fully God and fully human
NC Objectives	<ul style="list-style-type: none"> use running, jumping, throwing and catching in isolation and in combination play competitive games, modified where appropriate [for example, badminton, basketball, cricket, football, hockey, netball, rounders and tennis], and apply basic principles suitable for attacking and defending develop flexibility, strength, technique, control and balance perform dances using a range of movement patterns take part in outdoor and adventurous activity challenges both individually and within a team compare their performances with previous ones and demonstrate improvement to achieve their personal best. 	<ul style="list-style-type: none"> Play and perform in solo and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression Improvise and compose music for a range of purposes using the inter-related dimensions of music Listen with attention to detail and recall sounds with increasing aural memory Use and understand staff and other musical notations Appreciate and understand a wide range of high-quality live and recorded music drawn from different traditions and from great composers and musicians Develop an understanding of the history of music. 	Living Difference Concept Cycle	Inquire <ul style="list-style-type: none"> To accurately explain the Christian concept of Incarnation and how this relates to the Trinity. Contextualise <ul style="list-style-type: none"> To accurately explain how passages in the Bible, depicting the Nativity, reflect the Christian belief that Jesus is God Incarnate. To identify how artists have shown the human and Godly qualities of Jesus in their artwork. To accurately explain the Christian belief in the Trinity and relate this to the idea of Incarnation. Evaluate <ul style="list-style-type: none"> To discern the value of Incarnation for Christians and reflect on what the idea of Incarnation may mean to them Communicate <ul style="list-style-type: none"> To respond creatively and to begin to describe their response to the Trinity. Apply <ul style="list-style-type: none"> To explain some examples of how the ideas of Incarnation and the Trinity may affect their lives or the lives of others.
Substantive Knowledge	Fitness <ul style="list-style-type: none"> Understand the importance of good upper-body strength Recognise the benefits of increased activity Find areas of physical fitness that children want to improve. Invasion <ul style="list-style-type: none"> Know when to choose formations that suit the game. Know when to apply principles for attacking. Know when to adapt games and activities. Know when to keep possession of the ball. Know when and what tactics to use in games. OAA <ul style="list-style-type: none"> Know that planning strategies can help achieve success. Know that communication is vital to achieving success. Know when to move a map and when to move myself. Know what appropriate skills to choose for the challenge. Know when relevant techniques and elements are required. 	<ul style="list-style-type: none"> Explore, recognise and identify a range of different scale patterns including pentatonic, major and minor and could extend to: raga, chromatic, modes, and how they influence music Identify voices / instruments within families and their role in a wider range of ensembles; refine the use of voices and percussion instruments with intended impact Explore and use a wider range of developmental structures 		
Disciplinary Skills	Fitness <ul style="list-style-type: none"> Develop lower body strength Develop speed and endurance (aerobics) Apply and link FMS (KS1) and demonstrate stamina OAA <ul style="list-style-type: none"> Know how to use a map confidently and design a route. Know how to build a detailed map. Work well as part of a team. Invasion <ul style="list-style-type: none"> Know that using different skills will help keep possession. Understand the positions in a team and the roles they play. Know that there are different ways to defend and attack. I consider the best way to score and win the game, remembering to find and use space when running. 	<ul style="list-style-type: none"> Extend imaginative vocal use, chant and sing in balanced parts with expressive interpretation Demonstrate precise and confident instrumental skills and use them to perform with musical awareness Recognise which refinements need to be made and know how to make them Understand, select and use a range of notation for specific purposes including precise graphic notation and stave notation Respond to, identify, compare and contrast music 	Religious Traditions	CHRISTIANITY
Vocabulary	Indian Dribble, close, cover, mark, block, slap pass, decision making, possession, evaluate, explore	Calypso, metre, syncopated, rhythm, rhythmic pattern, accompaniment, chord, harmony	Vocabulary	Incarnation, Trinity, special
Assessment	Assessed against Hordle's PE internal assessment criteria..	Perform a calypso bass line and create and perform their own version of Calypso Sparkle	Assessment	Creative writing from POV of Mary - realisation of Jesus as God incarnate

	PSHE	MFL (French)	
Description	Celebrating Difference: Children learn about The Equality Act and develop their understanding of diversity	Children learn about the artist Matisse and about school subjects and school life in France.	
NC Objectives	<ul style="list-style-type: none"> • Value the different contributions that people and groups make to the community • Know about diversity: what it means; the benefits of living in a diverse community; about valuing diversity within communities • Understand stereotypes; how they can negatively influence behaviours and attitudes towards others; strategies for challenging stereotypes • Know about prejudice; how to recognise behaviours/actions which discriminate against others; ways of responding to it if witnessed or experienced 	<ul style="list-style-type: none"> • Explore the patterns and sounds of language through songs and rhymes and link the spelling, sound and meaning of words • Engage in conversations; ask and answer questions; express opinions and respond to those of others; seek clarification and help • Develop accurate pronunciation and intonation so that others understand when they are reading aloud or using familiar words and phrases • Read carefully and show understanding of words, phrases and simple writing • Appreciate stories, songs, poems and rhymes in the language • Broaden their vocabulary and develop their ability to understand new words that are introduced into familiar written material, including through using a dictionary • Describe people, places, things and actions orally and in writing 	
Substantive Knowledge	<ul style="list-style-type: none"> • I understand there are different perceptions about what normal means • I understand how being different could affect someone's life • I can explain some of the ways in which one person or a group can have power over another • I know some of the reasons why people use bullying behaviours • I can give examples of people with disabilities who lead amazing lives • I can explain ways in which difference can be a source of conflict and a cause for celebration 	<ul style="list-style-type: none"> • Study the collage work of Matisse • Describe colours and shapes • Be able to name the different school subjects • Be able to describe which subjects you like and dislike 	
Disciplinary Skills	<ul style="list-style-type: none"> • I can empathise with people who are different • I am aware of my attitude towards people who are different • I know how it can feel to be excluded or treated badly by being different in some way • I can tell you a range of strategies for managing my feelings in bullying situations and for problem-solving • I appreciate people for who they are • I can show empathy with people in either situation 	<ul style="list-style-type: none"> • Listen and show understanding of single words through physical response. • Repeat modelled short phrases • Recognise a familiar question and respond • Recognise and use the first person possessive adjectives (mon, ma) • Name the gender of nouns, name the indefinite article for both genres and use correctly • Repeat modelled short phrases • Use sentence structures to say likes and dislikes • To develop more complex sentences by using 'parce que' to give reasons for opinions 	
Vocabulary	Ability, disability, empathy, perception, diversity, fairness, prejudice, racism, harassment, bullying	Carré rectangle étoile ovale triangle ligne, les maths, l'anglais, le français, les sciences, le sport, l'informatique, l'histoire, le dessin, la géo, tous les jours, car c'est, intéressant, amusant, fascinant, super, fantastique, ennuyeux, nul	
Assessment	Summarise by discussing the importance of understanding difference and diversity	Speaking - children to say some sentences about the subjects they enjoy	