

Knowledge Organiser

Year 4

St Mary's Swanage



Spring Term 2023



Art Y4 Spring Term

3D and Painting

National Curriculum Aims

- Produce creative work
- Become proficient in drawing and painting
- Evaluate and analyse
- Know about great artists.

Prior Knowledge:

Drawing:

- Know how to control a pencil with increasing confidence.
- Know how to experiment with different types of line to create a composition
- Know how to create texture through rubbings and creating surface patterns with pencils
- Know how to work confidently from observation.
- Know how to draw component parts of human face in detail

3D:

- Know how to shape, form, model and construct from observation.
- Know how to work safely

Vocabulary

consistency
surface pattern
method
approach
tertiary
perspective
purpose
overlapping
carving
cross hatching

Key Knowledge:

Drawing:

- **Know how to draw whole sketches with detail of surrounds**
- **Know how to confidently work from imagination.**
- **Know how to solidify infill shapes with coloured pencils and can produce a range of tones with each.**
- **Know how to use cross hatching**
- Know how to express different feelings through drawing.
- **Know how to use appropriate language.**
- **Know how to use proportion to draw human figure in more detail.**

3D:

- **Know how to use shape, form, model and construct from imagination**
- **Know how to use surface patterns / textures.**

Computing Y4 Spring Term

Creating Media - Manipulating digital images

Prior Knowledge:

Desktop publishing:

Creating documents by modifying text, images, and page layouts for a specified purpose.

Key Knowledge

Photo editing:

- Know how to combine two images.
- I know that computer images can be changed and some images are fake.
- I know how to rotate, flip and crop images.
- I know how apply filters and effects to a photograph to change how it looks.
- I know how to draw, add text and borders to a photograph.

National Curriculum Aims

- Understand computer science.
- Analyse problems and write computer programs to solve them.
- Evaluate information technology.
- Will be a responsible, competent and creative user of ICT.

Vocabulary

Media
Manipulate
Digital image
Modify
Layout
Combine
Rotate
Flip
crop

Computing Y4 Spring Term

Data And information - Recognising how and why data is collected over time

Prior Knowledge:

Branching databases: Building and using branching databases to group objects using yes/no questions.

Key Knowledge

Data logging:

- Know a range of different sensors that can be used with a computer.
- Know that different sensors can be used as input devices.
- Know that data can be collected instantly and also over a period of time.
- To know how to present data on a computer in a table or as a graph.

Vocabulary

Data
Information
Database
Sensors
Input device
Table
graph

National Curriculum Aims

- Understand computer science.
- Analyse problems and write computer programs to solve them.
- Evaluate information technology.
- Will be a responsible, competent and creative user of ICT.

DT Y4 Spring Term

Electrical systems: Simple circuits and switches

National Curriculum Aims

- Develop creative, technical and practical expertise.
- Design and make products for a range of users.
- Evaluate my designs.
- Understand and apply the principles of nutrition and learn how to cook.

Prior Knowledge:

- Constructed a simple series electrical circuit in science, using bulbs, switches and buzzers.
- Cut and joined a variety of construction materials, such as wood, card, plastic, reclaimed materials and glue.

Key Knowledge

Understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs and buzzers.

- Apply their understanding of computing to program and control their products.
- Know and use technical vocabulary relevant to the project.

Vocabulary

series circuit, fault, connection, toggle switch, push-to-make switch, push-to-break switch, battery, battery holder, bulb, bulb holder, wire, insulator, conductor, crocodile clip control, program, system, input device, output device user, purpose, function, prototype, design criteria, innovative, appealing, design brief

English Y4 Spring Term

National Curriculum Aim

Promote high standards of language and literacy by equipping pupils with a strong command of the spoken and written word, and to develop their love of literature through widespread reading for enjoyment.

<p>Reading</p> <ul style="list-style-type: none"> • Discussing words and phrases that capture the reader's interest and imagination • <u>Recognising</u> some different forms of poetry [for example, free verse, narrative poetry. • reading books that are structured in different ways and reading for a range of purposes • using dictionaries to check the meaning of words that they have read • Drawing inferences such as inferring characters' feelings, thoughts and motives. 	<p>Spoken Word</p> <ul style="list-style-type: none"> • maintain attention and participate actively in collaborative conversations, staying on topic and initiating and responding to comments • consider and evaluate different viewpoints, attending to and building on the contributions of others. • participate in discussions, presentations, performances, role play, improvisations and debates • speak audibly and fluently with an increasing command of Standard English
<p>Writing</p> <ul style="list-style-type: none"> • Discussing writing <u>similar to</u> that which they are planning to write <u>in order to</u> understand and learn from its structure, vocabulary and grammar • <u>Organising</u> paragraphs around a theme. • Assessing the effectiveness of their own and others' writing and suggesting improvements • using conjunctions, adverbs and prepositions to express time and cause. • indicating possession by using the possessive apostrophe with plural nouns. 	<p>Grammar and Punctuation</p> <ul style="list-style-type: none"> • extending the range of sentences with more than one clause by using a wider range of conjunctions, including when, if, because, although • using the present perfect form of verbs in contrast to the past tense • choosing nouns or pronouns appropriately for clarity and cohesion and to avoid repetition • using conjunctions, adverbs and prepositions to express time and cause • using fronted adverbials.



Geography Y4 Spring Term

Rainforests

Prior Knowledge:

Using maps; continents and oceans; geographical terms from local and contrasting locality units

National Curriculum Aims

Develop knowledge of globally significant places.

Understand key physical and human geographical features of the world.

Carry out a range of fieldwork

Interpret information from a range of sources.

Key Knowledge

- the location and principal features of the Amazon, situating it within the globe and the South American continent and comparing and contrasting it with South-East Brazil;
- the key elements of a river and how these distinctively apply to the Amazon;
- the key elements of a rainforest biome, how these contrast with other biomes, the main location of the world's rainforests, and how these things distinctively apply to the Amazon;
- how some people have adapted to life in rainforests, including the Amazon;
- the key elements of the water cycle and how these apply to the Amazon.
- interpret a range of maps and aerial views of the Amazon and apply this information to their understanding of it;
- use appropriate vocabulary when describing the Amazon; rainforest and other biomes; river features and place locations.
- use globes and atlases to identify the location and distribution of rainforest and other biomes;

Vocabulary

Amazon Basin, Amur River, Congo Forest, Congo River, Democratic Republic of the Congo, Ethiopia, Indonesia, Lake Tanganyika, Ob-Irtysh River, Paraná River, River Niger, River Nile, River Thames, South Sudan, Sudan, Uganda, Yangtze River, Yellow River, Yenisei River

acid rain, agriculture, biodiversity, biome, canal, canopy, channel, condensation, confluence, dam, deforestation, drainage, drinking water, ecosystem, embankment, emergent layer, environment, environmentalist, erosion, evaporation, fertile, flooding, flood management, flood plain, flood prevention, forest floor, freshwater, groundwater, humidity, hydro-electric power, indigenous, irrigation, logging, meander, mouth, pollution, poverty, river bank, river basin, source, transportation, tributary, understory, valley, vegetation, water cycle, watershed

altitude, equatorial, estuary, International Date Line, lower course, middle course, Prime Meridian, upper course,



History Y4 Spring Term

Saxons and Scots

National Curriculum Aims

Know chronology of topic studied.

Understand significant events.

Understand historical terms.

Understand historical concepts and use them to make connections.

Understand and take part in historical enquiry.

Prior Knowledge:

- Romans: why they left Britain 410 AD / CE – what continued and what changed
- Hadrian's Wall was built because the Romans never managed to conquer the area we know as Scotland today.

Key Knowledge

- Know where the Angles, Saxons, Jutes, came from (and how the term 'Anglo-Saxon' can be misleading); when and why these people came and where they settled.
- Know where the Scots came from, when (including emigration from Ireland), where they settled and why.
- Know that the conflict between the Scots and Saxons led to the establishment of a border that still exists today.
- Know aspects of Anglo-Saxon art and culture and society, including laws and justice.
- Explain some of the religious beliefs and practices of the early Anglo-Saxons, and describe some of the gods they worshipped.
- Learn how the Anglo-Saxons were converted to Christianity and the people who were influential in this, and significant places; understand that converting to Christianity brought literacy and the writing of books and documents.
- Explain what the Seven Anglo-Saxon Kingdoms were and where they were.
- Begin to understand The Church as a connected, complex organisation linked across Europe that had periods of reform and disagreements through a focus on the Synod of Whitby 664 (convened to set a date for Easter).
- Know that Wareham was a Saxon settlement, and the evidence which can be seen today.

Vocabulary

AD – CE

BC – BCE

Angles

Saxons

Jutes

Scots / Scotti

Picts

invasion

invaders

settlers

migration

settlement

Hengist and Horsa

pagan

Christianity

Monk

Abbey

Abbot

Abbess

The Venerable Bede

Augustine (of Canterbury)

The Church (as a connected, powerful institution)

Canterbury

Iona

Lindisfarne

Seven **Kingdoms** (Heptarchy):

Northumbria, Mercia, East

Anglia, Wessex, Sussex, Essex,

Kent

Sutton Hoo

Offa's Dyke

-ham / -ton, -tun / -wich / -ford /

-burh

wattle and daub

thatch

farmer-warrior

illumination

Manuscript

were geld

Maths Y4 Spring Term

National Curriculum Aims
Become fluent in the fundamentals of mathematics
Reason mathematically
Solve Problems

Termly Overview		
1	Number - multiplication and division	Multiplication and division 2
2	Measurement	Measure - area
3	Number fractions (including decimals)	Fractions 1
4	Number fractions (including decimals)	Fractions 2
5	Number fractions (including decimals)	Decimals 1

MFL Y4 Spring Term

Caperucita Roja (Little Red Riding Hood)

Prior Knowledge:

- Understand that all nouns in Spanish are either masculine or feminine
- Read, write and say the masculine and feminine forms of the singular definite article: “the” (el/la)
- Know that the word “the” has a plural form
- Read, write and say the masculine and feminine forms of the plural definite article: “the” (los/las)

Key Knowledge

- Can listen attentively to all of a traditional tale: Little Red Riding Hood
- Use reading skills when listening to and reading a longer text
- Match pictures and key words
- Remember and repeat from memory orally key words from the story
- Rewrite key words from the story
- Read aloud key phrases
- Say, read, write ten parts of the body

Learn about aspects of Spanish culture

- Know key information about *Las Fallas de Valencia*

National Curriculum Aims

Understand spoken and written language.

Speak with accurate pronunciation and intonation.

Write for different audiences.

Discover and develop and. Appreciateion of. The language studied.

Vocabulary

Caperucita Roja – Little Red Riding Hood

la casa – the house

la abuela – the grandmother (formal)

la abuelita – the granny (informal)

el lobo – the wolf

el cazador – the woodcutter

el bosque – the forest

los padres – the parents

unos pasteles – some cakes

el cuerpo – the body

la cabeza – the head

la boca – the mouth

la nariz – the nose

los ojos – the eyes

los pies – the feet

las orejas – the ears

las rodillas – the knees

el hombro – the shoulder

MFL Y4 Spring Term

La Historia de la Antigua Gran Bretaña (Ancient Britain)

National Curriculum Aims

Understand spoken and written language.

Speak with accurate pronunciation and intonation.

Write for different audiences.

Discover and develop and. Appreciateion of. The language studied.

Prior Knowledge:

- Know how to say “I am”
- Completed simple sentences with first person verb + noun (I play – toco / I am – soy)
- Know that “tengo” means I have
- Understand that all nouns in Spanish are either masculine or feminine
- Read, write and say the masculine and feminine forms of the indefinite article: “a” (un/una)
- Studied Ancient Britain in history lessons in English (Y3)

Vocabulary

La historia de la antigua Gran Bretaña - the history of Ancient Britain

La edad de piedra – the Stone Age

La edad de **bronce** – the Bronze Age

La edad de hierro – the Iron Age

El imperio Romano – the Roman Empire

Los Anglosajones – the Anglo-Saxons

La época Vikinga – the Viking period

Soy... - I am

Un hombre – a man

Una mujer – a woman

Soy un hombre de la edad de piedra – I am a man from the Stone Age

Soy una mujer de la edad de piedra – I am a woman from the Stone Age

Soy un hombre de la edad de bronce – I am a man from the Bronze Age

Soy una mujer de la edad de bronce – I am a woman from the Bronze Age

Soy un hombre de la edad de hierro – I am a man from the Iron Age

Soy una mujer de la edad de hierro – I am a woman from the Iron Age

tengo... - I have...

un sílex – a flint

un hacha – an axe

una espada – a sword

Vivo en... - I live in...

una cueva – a cave

una choza – a hut / shelter

una casa redonda – a round house

Key Knowledge

- Can listen attentively to key facts about Ancient Britain
- Name the six key periods of Ancient Britain
- Name the three types of people who lived in Ancient Britain
- Name the three key hunting tools used in the Stone Age, Bronze Age and Iron Age



Music Y4 Spring Term

Three little birds

The dragon song

National Curriculum Aims

Perform, listen to and evaluate a range of music.

Learn to sing, create and compose music and play an instrument.

Understand how music is created and use appropriate notation.

Prior Knowledge:

Performing

- Know how to sing in tune with expression.
- Know how to control the voice when singing with clear diction.
- Know how to play clear notes on an instrument

Composing

Know how to use different elements in composition; repeat patterns on a range of instruments and create accompaniments to a melody

- Know how to choose instruments purposefully and combine different sounds to create an intended effect.

Listening and appraising

- Know how to use musical vocabulary to describe a piece of music, discussing likes and dislikes.
- Know how to improve work, stating how it has been improved.
- Know how to recognise the work of at least one famous composer showing awareness of when it was written.

Key Knowledge

- Performing
- Know how to perform a simple part including rests.
- Know how to improvise using repeated patterns.
- Know how to maintain a part in a group showing awareness of others.
- Memorise songs and perform with accuracy.

Composing

- Know how to use basic rhythmic notation to transcribe ideas.
- Know how to notate a composition using basic notation and use to record performance.
- Explore and compose a short song (lyrics and melody) and perform

Listening and appraising

- Know and identify the different purposes of music, using musical vocabulary.
- Develop their understanding of a musical timeline, recognising there are different eras of music and being able to recognise their differences.
- Know how silence can affect the overall effect of a musical piece or idea.

Vocabulary

Musical style, rapping, lyrics, choreography, digital/electronic sounds, turntables, synthesisers, drums, unison, pulse, rhythm, pitch, tempo, dynamics, texture structure, compose, improvise, hook, riff, melody, solo by ear, notation, improvise, melody, composition, backing vocal, piano, bass, drums, organ,

PE Y4 Spring Term

Netball Dance Hockey

National Curriculum Aims

Develop competence in a broad range of physical activities.

Be physically active for sustained periods of time.

Engage in competitive sports and activities.

Lead healthy, active lives.

Prior Knowledge:

Netball

- Pupils will develop their passing and moving skills to outwit their opponents and keep possession of the ball.
- Pupils will apply an understanding of where, when and why we pass and move, in order to score points against another team.

Dance

- Pupils will ensure that their movements are big and clear, they will perform with expression and emotion as they tell a story.

Hockey

- Pupils will develop their passing and moving and dribbling skills to outwit their opponents and keep possession of the ball

Key Knowledge

Netball

- Pupils will be able to apply a secure understanding of passing, moving and shooting in order to score points against another team.
- Pupils will demonstrate a growing understanding of the difference between attack and defence by making effective decisions and creating simple tactics.

Dance

- Pupils will perform with big and clear movements that flow. They will perform with expression and be able to stay in character.

Hockey

- Pupils will be able to apply a secure understanding of passing, moving and dribbling and develop their skills of blocking and tackling, to prevent attacks.

Vocabulary

Netball

Attacker, defender, possession

Dance

Excellent dancers, expression, creativity, emotion. Motif, choreography,

Hockey

Tackling, blocking, free hit.

PHSE/RSE Y4 Spring Term

Valuing Difference

Prior Knowledge:

- I know examples of different groups of people, due to origins, ethnicity, and religion. These groups use team work to form a community
- I know some ways to manage conflict through negotiation and compromise.
- I know some consequences of aggressive behaviour.
- I know what a stereotype is and that some are promoted within media.

Key Knowledge

- I know examples of different groups of people, due to origins, ethnicity, and religion. These groups use team work to form a community
- I know some ways to manage conflict through negotiation and compromise.
- I know some consequences of aggressive behaviour.
- I know what a stereotype is and that some are promoted within media.

Vocabulary

Negotiation, compromise, acquaintance, aggressive, apologies, stereotype



PHSE/RSE Y4 Spring Term

Me and My Relationships

Prior Knowledge:

- I know that feelings vary in intensity and change over time.
- I know when and how to say no.
- I know some strategies and skills needed for collaborative work.
- I know what bullying and being pressurised looks like.

Key Knowledge

- I know that feelings vary in intensity and change over time.
- I know when and how to say no.
- I know some strategies and skills needed for collaborative work.
- I know what bullying and being pressurised looks like.

Vocabulary

Responsibility, exclusion, assertive, aggression, compromise, collaboration, pressure.

Feelings:

Miserable, distressed, ignored, isolated, alone, troubled, joyful, calm, assured, peaceful.

RE Y4 Spring Term

Come and See

Themes	Topic	Title	Content
Local Church	Community	Community	Life in the local Christian community ministries in the parish.
Eucharist	Relating	Giving & receiving	Living in communion.
Lent/Easter	Growing	Self discipline	Celebrating growth to new life.

Science Y4 Spring

Animals including humans

Prior Knowledge:

- Identify and name a variety of common animals that are carnivores, herbivores and omnivores. (Y1 - Animals, including humans)
- Find out about and describe the basic needs of animals, including humans, for survival (water, food and air). (Y2 - Animals, including humans)
- Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. (Y2 - Animals, including humans)
- Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat. (Y3 - Animals, including humans)

Key Knowledge

- Describe the simple functions of the basic parts of the digestive system in humans.
- Identify the different types of teeth in humans and their simple functions.
- Construct and interpret a variety of food chains, identifying producers, predators and prey.

Vocabulary

Digestive system, digestion, mouth, teeth, saliva, oesophagus, stomach, small intestine, nutrients, large intestine, rectum, anus, teeth, incisor, canine, molar, premolars, herbivore, carnivore, omnivore, producer, predator, prey, food chain

As a Scientist I will be:

Develop scientific knowledge conceptual understanding

Making Observations

Engaging in Practical Activities

Recording and Presenting Evidence

Evaluating and raising questions

Communicating Findings