

Scientific enquiry skills should permeate through all Science learning

During years 5 and 6, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

- planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
- taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate -recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
- using test results to make predictions to set up further comparative and fair tests
- reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations
- identifying scientific evidence that has been used to support or refute ideas or arguments.

BORN FREE (3)

Challenge: Animals in captivity is a current hot topic and Monkey world would like to know about the children's views

CITIZENSHIP/RE

NC OBJECTIVES

- to talk and write about their opinions, and explain their views, on issues that affect themselves and society
- to face new challenges positively by collecting information, looking for help, making responsible choices, and taking action
- to research, discuss and debate topical issues, problems and events; b. why and how rules and laws are made and enforced, why different rules are needed in different situations and how to take part in making and changing rules
- to reflect on spiritual, moral, social, and cultural issues, using imagination to understand other people's experiences

ENGLISH

NC OBJECTIVES

- Using a wide range of devices to build cohesion within and across paragraphs ☑ using further organisational and presentational devices to structure text and to guide the reader [for example, headings, bullet points, underlining]
 - Assessing the effectiveness of their own and others' writing
 - Use dictionaries to check the spelling and meaning of words
 - Use the first three or four letters of a word to check spelling, meaning or both of these in a dictionary
 - Noting and developing initial ideas, drawing on reading and research where necessary
 - Explain and discuss their understanding of what they have read, including through formal presentations and debates, maintaining a focus on the topic and using notes where necessary
 - Provide reasoned justifications for their views
 - Recommending books that they have read to their peers, giving reasons for their choices
 - Distinguish between statements of fact and opinion
 - Retrieve, record and present information from non-fiction
- Application in writing opportunities:**
 Persuasive letters
 Balanced argument letter
 Debate in class

Computing

NC OBJECTIVES

- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

Outcome: Send debates to Monkey World to meet the challenge.

IT'S A DISASTER (4)	
Challenge: Increasing number of natural disasters. Share recent natural disasters in an email from Top Trumps, please help us develop a new game. Scientific enquiry – acid/bicarb	
GEOGRAPHY	NC OBJECTIVES -Describe and understand key aspects of physical geography, including volcanoes and earthquakes, -use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied
ENGLISH Class read/ Quality text: Running Wild	NC OBJECTIVES -Selecting appropriate grammar and vocabulary, understanding how such choices can change and enhance meaning - In narratives, describing settings, characters and atmosphere and integrating dialogue to convey character and advance the action -In writing narratives, considering how authors have developed characters and settings in what pupils have read, listened to or seen performed -Participate in discussions about books that are read to them and those they can read for themselves, building on their own and others' ideas and challenging views courteously -Checking that the book makes sense to them, discussing their understanding and exploring the meaning of words in context -Identifying how language, structure and presentation contribute to meaning -Asking questions to improve their understanding Application in writing: Setting and character descriptions Narrative- story opening Newspaper report
Computing	NC OBJECTIVES -use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
Outcome: Top Trumps produced	

MAYAN MAYHEM (6)	
Challenge: Parents report they know very little about the Mayans, how can we make learning about the Mayans more engaging?	
GEOGRAPHY	<p>NC OBJECTIVES</p> <ul style="list-style-type: none"> - Describe and understand key aspects of human geography, including: types of settlement and land use, economic activity including trade links - (Revisit) locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities - understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom a region within North America – Mexico - describe and understand key aspects of physical geography, including: climate zones, biomes and vegetation belts - identify the significance of Prime/Greenwich Meridian and time zones
HISTORY	<p>NC OBJECTIVES</p> <ul style="list-style-type: none"> - a non-European society that provides contrasts with British history –Mayan civilization c. AD 900;
ENGLISH	<p>NC OBJECTIVES</p> <ul style="list-style-type: none"> - Using a wide range of devices to build cohesion within and across paragraph - Selecting appropriate grammar and vocabulary, understanding how such choices can change and enhance meaning - Recognising vocabulary and structures that are appropriate for formal speech and writing, including subjunctive forms - Using passive verbs to affect the presentation of information in a sentence - Identifying the audience for and purpose of the writing, selecting the appropriate form and using other similar writing as models for their own - Using a wide range of devices to build cohesion within and across paragraphs - Drawing inferences such as inferring characters' feelings, thoughts and motives from their actions, and justifying inferences with evidence <p>Application in writing: Describing settings Non chronological report Holiday brochures Formal Letter</p>
Computing	<p>NC OBJECTIVES</p> <ul style="list-style-type: none"> - select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information <p>DISCRETE – SPREADSHEETS</p>
Outcome: Comic strip	

SURVIVAL OF THE FITTEST (6)	
Challenge: Introduce Darwin as an influential thinker of our time. How can we share his knowledge and research?	
ART	<p>NC OBJECTIVES</p> <ul style="list-style-type: none"> -to create sketch books to record their observations and use them to review and revisit ideas -to improve their mastery of art and design techniques, including drawing
SCIENCE	<p>NC OBJECTIVES</p> <ul style="list-style-type: none"> -compare and group together different kinds of rocks on the basis of their appearance and simple physical properties -describe in simple terms how fossils are formed when things that have lived are trapped within rocks -recognise that soils are made from rocks and organic matter - describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals -give reasons for classifying plants and animals based on specific characteristics - recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago -recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents -identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution
ENGLISH	<p>NC OBJECTIVES</p> <ul style="list-style-type: none"> -Using semi-colons, colons or dashes to mark boundaries between independent clauses -Using a colon to introduce a list -Using hyphens to avoid ambiguity - Recognising vocabulary and structures that are appropriate for formal speech and writing, including subjunctive forms - In narratives, describing settings, characters and atmosphere and integrating dialogue to convey character and advance the action - Predicting what might happen from details stated and implied - Provide reasoned justifications for their views. <p>Application in writing: Narrative Diary Biography</p>
Computing	<p>NC OBJECTIVES</p> <ul style="list-style-type: none"> -use sequence, selection, and repetition in programs; work with variables and various forms of input and output -design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
Outcome: Darwin lecture	

DOCTOR DOCTOR (6)	
Challenge:	
HISTORY	<p>NC OBJECTIVES</p> <ul style="list-style-type: none"> - a study of an aspect or theme in British history that extends pupils' chronological knowledge beyond 1066 – Medicine Through History
SCIENCE	<p>NC OBJECTIVES</p> <ul style="list-style-type: none"> -identify common appliances that run on electricity -construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers -identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery -recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit -recognise some common conductors and insulators, and associate metals with being good conductors
DESIGN TECHNOLOGY	<p>NC OBJECTIVES</p> <ul style="list-style-type: none"> -understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] -apply their understanding of computing to program, monitor and control their products
ENGLISH	<p>NC OBJECTIVES</p> <ul style="list-style-type: none"> - Using commas to clarify meaning or avoid ambiguity in writing -Using the perfect form of verbs to mark relationships of time and cause -Using relative clauses beginning with who, which, where, when, whose, that or with an implied (i.e. omitted) relative pronoun -Identifying the audience for and purpose of the writing, selecting the appropriate form and using other similar writing as models for their own -Predicting what might happen from details stated and implied <p>Application of writing:-</p> <ul style="list-style-type: none"> Diary Narrative Formal/informal letter
COMPUTING	<p>NC OBJECTIVES</p> <ul style="list-style-type: none"> -select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and informatio
Outcome: Operation game	

HEALTHY BODY, HEALTHY MIND (6)

Challenge: Dawn has asked year 6 to help support well-being in school and share the importance of healthy lifestyle choices with staff.

<p>SCIENCE</p>	<p>NC OBJECTIVES</p> <ul style="list-style-type: none"> -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 - identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood -recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function -describe the ways in which nutrients and water are transported within animals, including human -describe the changes as humans develop to old age (Sex and Relationships Ed)
<p>DESIGN TECHNOLOGY</p>	<p>NC OBJECTIVES</p> <p>As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.</p> <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, aimed at particular individuals or groups -select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] -select from and use a wider range of materials and components, including ingredients, according to their functional properties and aesthetic qualities -investigate and analyse a range of existing products -evaluate their ideas and products against their own design criteria and consider the views of others to improve their work -understand how key events and individuals in design and technology have helped shape the world -understand and apply the principles of a healthy and varied diet
<p>ENGLISH</p>	<p>NC OBJECTIVES</p> <ul style="list-style-type: none"> -Identifying the audience for and purpose of the writing, selecting the appropriate form and using other similar writing as models for their own -Noting and developing initial ideas, drawing on reading and research where necessary selecting appropriate grammar and vocabulary, understanding how such choices can change and enhance meaning -Proposing changes to vocabulary, grammar and punctuation to enhance effects and clarify meaning -Recognising vocabulary and structures that are appropriate for formal speech and writing, including subjunctive forms -Summarising the main ideas drawn from more than one paragraph, identifying key details that support the main ideas -Discuss and evaluate how authors use language, including figurative language, considering the impact on the reader <p>Application in writing:</p> <ul style="list-style-type: none"> Formal letter Non-chronological report

**YEAR 6 CURRICULUM OBJECTIVES OVERVIEW
2019-2020**

	Instructions
Computing	NC OBJECTIVES -use sequence, selection, and repetition in programs; work with variables and various forms of input and output DISCRETE – Scratch
Outcome: Sell healthy snacks	

GREAT GREAT BRITAIN (6)	
Challenge: Who put Britain on the map? Share their influences!	
ART	<p>NC OBJECTIVES</p> <ul style="list-style-type: none"> -to create sketch books to record their observations and use them to review and revisit ideas -to improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay] -taught about great artists, architects and designers in history.
ENGLISH	<p>NC OBJECTIVES</p> <ul style="list-style-type: none"> -Identifying the audience for and purpose of the writing, selecting the appropriate form and using other similar writing as models for their own -Noting and developing initial ideas, drawing on reading and research where necessary selecting appropriate grammar and vocabulary, understanding how such choices can change and enhance meaning -Proposing changes to vocabulary, grammar and punctuation to enhance effects and clarify meaning - Précising longer passages - Preparing poems and plays to read aloud and to perform, showing understanding through intonation, tone and volume so that the meaning is clear to an audience ☑ <p>Application in writing:</p> <ul style="list-style-type: none"> Persuasion Biography Poetry
Computing	<p>NC OBJECTIVES</p> <ul style="list-style-type: none"> -select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information <p>DISCRETE – Digital media</p>
Outcome: Pop up Banksy	

Discrete

Refer to PE Curriculum

- 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 [for example, through athletics and gymnastics]
- 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

Science Curriculum

- compare how things move on different surfaces
- notice that some forces need contact between two objects, but magnetic forces can act at a distance
- observe how magnets attract or repel each other and attract some materials and not others
- compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials
- describe magnets as having two poles
- predict whether two magnets will attract or repel each other, depending on which poles are facing.

KNOWLEDGE AND CONCEPTS

Forces are measured in Newtons

Reading Newton metres

Apply a force for something to move or change shapes

Contact forces - Friction is created when two surfaces rub together

Non-contact forces include magnets and gravity

Magnets – repel and attract depending on poles

Magnets don't attract all metals