

## Science

**National Curriculum ref:** Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity and response to magnets.

Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic

### Autumn 1:

- Properties and changes of materials
- To work scientifically
- To investigate materials

### Milestone ref:

- Compare and group together everyday materials based on evidence from comparative and fair tests, including their hardness, solubility, conductivity (electrical and thermal), and response to magnets.
- Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.
- Plan enquiries, including recognising and controlling variables where necessary.
- Take measurements, using a range of scientific equipment, with increasing accuracy and precision taking repeat readings when appropriate
- Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, bar and line graphs, and models.
- Use test results to make predictions to set up further comparative and fair tests.
- Report findings from enquiries, including oral and written explanations of results, explanations involving causal relationships, and conclusions.
- Use simple models to describe scientific ideas, identifying scientific evidence that has been used to support or refute ideas or arguments.

## CURRICULUM MAP

YEAR

5

TERM Autumn

Fairness and  
equality

### English

**Theme link:** Fairness and equality

Write formally.

### **Content:**

Free Verse Poetry –Write & Perform- Ben Zephaniah (noughts and crosses)

Fiction from our Literacy heritage (Charles Dickens- Scrooge-poverty)

Vocabulary building and grammar

Persuasive writing – Link to D&T

Discussion text

### **Milestone ref:**

- Identify the audience for writing.
- Choose the appropriate form of writing using the main features identified in reading.
- Note, develop and research ideas.
- Plan, draft, write, edit and improve.
- Use the techniques that authors use to create characters, settings and plots.
- Create vivid images by using alliteration, similes, metaphors and personification.
- Interweave descriptions of characters, settings and atmosphere with dialogue.
- Guide the reader by using a range of organisational devices, including a range of connectives.
- Choose effective grammar and punctuation and propose changes to improve clarity.
- Ensure correct use of tenses throughout a piece of writing.
- Write paragraphs that give the reader a sense of clarity.
- Write paragraphs that make sense if read alone.
- Write cohesively at length.
- Use knowledge of morphology and etymology in spelling and understand that some words need to be learned specifically.
- Use dictionaries to check spelling and meaning of words.

## Science

### **National Curriculum ref:**

Know that some materials will dissolve in liquids to form a solution.

Look at solubility and recovering dissolved substances. Separate mixtures.

Examine changes to materials that create new materials that are usually not reversible.

### Autumn 2:

- Dissolving, reactions and separations
- To work scientifically
- To investigate materials

### **Milestone ref:**

- Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.
- Demonstrate that dissolving, mixing and changes of state are reversible changes.
- Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning, oxidisation and the action of acid on bicarbonate of soda.
- Plan enquiries, including recognising and controlling variables where necessary.
- Take measurements, using a range of scientific equipment, with increasing accuracy and precision.
- Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, bar and line graphs, and models.
- Report findings from enquiries, including oral and written explanations of results, explanations involving causal relationships, and conclusions.
- Present findings in written form, displays and other presentations.
- Use test results to make predictions to set up further comparative and fair tests.
- Identify scientific evidence that has been used to support or refute ideas or arguments.

## History

### Theme Link

An investigation into the achievements of an early civilisation in West Africa . The rise and fall of that civilisation and how this is linked to the slave trade. Discussions linked to fairness and equality.

### **Content:**

Explore the achievements of a non-European society that provides contrasts with British history – a study on Benin (West Africa) c. AD 900-1300.

### **Skills:**

- Deduce information about the past using sources of evidence.
- Understand the concept of change over time, representing this, along with evidence, on a time line
- Select suitable sources of evidence, giving reasons for choices.
- Compare and contrast the similarities and differences in beliefs (social, political, religious) over time.
- Analyse the impact of historical events
- Demonstrate empathy through the presentation of information and ideas in original ways.

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### Geography

**Theme link:** Comparisons of natural resources through out Africa. An investigation into natural resources such as food, minerals, energy and water supplies and the similarities and differences between Africa and the UK..

### **Content:**

Develop the understanding of geographical characteristics (human and physical) of a number of countries across a continent (Africa).  
Locational knowledge- to locate world countries, using a map.

### **Skills:**

Identify the position and significance of latitude , longitude, equator, northern hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, and time zones (including day and night).  
Describe the main physical and human characteristics of a number of African countries.  
Discuss and compare the diversity between the UK and Africa  
Evaluate the impact of climate on agriculture  
Compare and contrast with the UK climate

## Computing

### **Theme link:**

1. To design, implement and review a fairground ride
2. To investigate how hardware systems respond (coding)

### **National Curriculum ref:**

Programming systems

### **Content:**

Design a fairground ride  
Investigate coding programmes

### **Milestone ref:**

- To research and identify automatic control systems in the outside world, including those using sensors to monitor environmental conditions. Explain, in simple terms, how they operate, distinguishing between cause and effect
- To understand that we should be able to “read” programs and understand them in much the same way as any written text. Know that programmers add comments to support this process. With a partner “read” their game programs and add comments to support interpretation.
- To understand that control languages can be used to command physical devices. Use a programming language to control simple physical devices (motors, bulbs, buzzers etc.) to meet agreed objectives.
- To know that many control systems in the outside world are managed through instruction sequences and use input sensors and output devices to respond to different situations, including varying environmental conditions. Build and program a device which includes input sensors and output devices .

## Music

**Theme link:** N/A

**Content:** Brass

**National Curriculum ref:** Play and perform in solo and ensemble context playing musical instruments with increasing accuracy fluency and control.

**Milestone ref:**

- Sing or play from memory with confidence.
- Perform solos or as part of an ensemble.
- Sing or play expressively and in tune.
- Perform with controlled breathing (voice) and skilful playing (instrument).
- Use the standard musical notation of crotchet, minim and semibreve to indicate how many beats to play.
- Read and create notes on the musical stave.
- Understand the purpose of the treble and bass clefs and use them in transcribing compositions.

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## ART

**Theme link:** African Art -Julie Mehretu, Ethiopia and Benin African Africa, Nigeria.

**Content:** Focus on an African Artist with a link to slavery.  
**National Curriculum ref:** Improve mastery of techniques

**Milestone ref:**

- Sketch (lightly) before painting to combine line and colour.
- Create a colour palette based upon colours observed in the natural or built world.
- Use the qualities of watercolour and acrylic paints to create visually interesting pieces.
- Combine colours, tones and tints to enhance the mood of a piece.
- Use brush techniques and the qualities of paint to create texture.
- Develop a personal style of painting, drawing upon ideas from other artists.

## R.E.

**Theme link:** Rules for living and Light as a symbol- linked to Fairness and Equality

**Content:**

Autumn A - Rules for Living-  
Autumn B - Light as a Symbol  
(Follow Herts scheme)

**Milestone ref:**

- Explain how some teachings and beliefs are shared between religions.
- Explain how religious beliefs shape the lives of individuals and communities.
- Explain the practices and lifestyles involved in belonging to a faith community.
- Compare and contrast the lifestyles of different faith groups and give reasons why some within the same faith may adopt different lifestyles.
- Show an understanding of the role of a spiritual leader.
- Explain some of the different ways that individuals show their beliefs.
- Recognise and express feelings about their own identities. Relate these to religious beliefs or teachings.
- Explain their own ideas about the answers to ultimate questions.
- Explain why their own answers to ultimate questions may differ from those of others.
- Explain why different religious communities or individuals may have a different view of what is right and wrong.
- Show an awareness of morals and right and wrong beyond rules (i.e. wanting to act in a certain way despite rules).
- Express their own values and remain respectful of those with different values.

## P.E.

**Theme link:** Fairness and Equality through playing competitive games.

**National Curriculum ref:** Play competitive games, modified where appropriate, such as football, netball, rounders, cricket, hockey, basketball, badminton and tennis and apply basic principles suitable for attacking and defending.

**Content:** Tag Rugby

**Milestone ref:**

- Choose and combine techniques in game situations (running, throwing, catching, passing, jumping and kicking, etc.).
- Work alone, or with team mates in order to gain points or possession.
- Strike a bowled or volleyed ball with accuracy.
- Use forehand and backhand when playing racket games.
- Field, defend and attack tactically by anticipating the direction of play.
- Choose the most appropriate tactics for a game.
- Uphold the spirit of fair play and respect in all competitive situations.
- Lead others when called upon and act as a good role model within a team.

## P.E.

**Theme link:** African Dance

**National Curriculum ref:** Dance with a range of patterns

**Content:** African Dance

**Milestone ref:**

- Compose creative and imaginative dance sequences.
- Perform expressively and hold a precise and strong body posture.
- Perform and create complex sequences.
- Express an idea in original and imaginative ways.
- Plan to perform with high energy, slow grace or other themes and maintain this throughout a piece.
- Perform complex moves that combine strength and stamina gained through gymnastics activities (such as cartwheels or handstands).

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## PSHE

**Theme link:** Fairness and Equality when discussing rules and responsibilities

**National Curriculum ref:** N/A

**Content:** Children will look at the SEAL unit new beginnings where fairness and equality runs through.

**New Beginnings –SEAL**

**Milestone ref:**

- Enjoy new things and take opportunities wherever possible.
- Find things to do that give energy.
- Become fully involved in clubs or groups.
- Meet up with others who share interests in a safe environment.
- Have fun working hard.
- Understand the benefits of effort and commitment.
- Continue to practise even when accomplished.
- Encourage others by pointing out how their efforts gain results.
- Give full concentration.
- 'Tune out' most distractions.
- Understand techniques and methods that aid concentration.
- Develop expertise and deep interest in some things.

## Design and Technology

**Theme link:** to design and create fair trade packaging for a product of their choice

**National Curriculum ref:** 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.

- Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.
  - Select from and use a wider range of materials and components, including construction materials, textiles and 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.
  - Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.
  - Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.
  - Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.
- Content:** recipe design (food technology)  
Packaging design

**Milestone ref:**

- Design with the user in mind, motivated by the service a product will offer (rather than simply for profit).
- Make products through stages of prototypes, making continual refinements.
- Ensure products have a high quality finish, using art skills where appropriate.
- Use prototypes, cross-sectional diagrams and computer aided designs to represent designs.
- Understand the importance of correct storage and handling of ingredients (using knowledge of micro-organisms).
- Measure accurately and calculate ratios of ingredients to scale up or down from a recipe.
- Demonstrate a range of baking and cooking techniques.
- Create and refine recipes, including ingredients, methods, cooking times and temperatures.
- Show an understanding of the qualities of materials to choose appropriate tools to cut and shape (such as the nature of fabric may require sharper scissors than would be used to cut paper).
- Evaluate the design of products so as to suggest improvements to the user experience.