

## Curriculum Links Reference Book: Key Stage 2

### **English**

The National Curriculum for English reflects the importance of spoken language in learners' development across the whole curriculum. Through our sessions, the benefits and curriculum links will vary greatly depending on the group, with each session being tailored to the needs of the group.

Sessions will particularly aid in the following:

- Learning of new vocabulary
- Use of descriptive English
- Using standard English confidently in a range of formal and informal contexts
- Classroom discussion and expression of own ideas
- Summarising and/or building on what has been said

The sessions provide multiple opportunities for extended learning, for example:

- Discussing outcomes
- Comparing and contrasting activities on site to those at school
- Presentation work

### **Mathematics**

Mathematics is integral to many Field Studies sessions, helping studies become fluid in their approach. The extent to which Mathematics is covered will greatly depend on the needs of the groups.

Sessions may aid in the following:

- Solving problems with addition and subtraction, division and multiplication
- Checking calculations for accuracy
- Recognising, naming and writing fractions
- Choosing and using appropriate standard units
- Estimation of length/height in any direction, mass, temperature and capacity
- Knowing the number of minutes in an hour and the number of hours in a day
- Identify basic 2D and 3D shapes
- Ordering and arranging patterns and sequences
- Interpreting and constructing tally charts and simple tables

### **Citizenship**

We understand that citizenship education helps young people to develop the skills, knowledge and understanding required to prepare them to play a full and active part in society. The Citizenship curriculum is embedded within practice at Avon Tyrell. Learners are encouraged to work within a team environment, managing their own time and resources, making and debating reasoned arguments, and exploring social issues in a safe environment.

Sessions may support the following areas:

- Developing confidence and responsibility and making the most of their abilities
- Preparing to play an active role as citizens
- Developing a healthy, safer lifestyle
- Developing good relationships and respecting the differences between people
- Increasing the breadth of opportunities

## Science

The principle focus of the Science National Curriculum at KS2, is to broaden learners scientific view of the world around them. Field Studies sessions in particular address a wide range of curriculum topics, with a particular focus on working scientifically and life processes.

### Lower Key Stage 2 (Year 3 and 4)

#### Working Scientifically

1. Asking relevant questions and using different types of scientific enquiries to answer them
2. Setting up simple practical enquiries, comparative and fair tests
3. Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
4. Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
5. Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
6. Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
7. Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
8. Identifying differences, similarities or changes related to simple scientific ideas and processes
9. Using straightforward scientific evidence to answer questions or to support their findings

#### Year 3 Programme of study

##### *Plants*

1. Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers
2. Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant
3. Investigate the way in which water is transported within plants
4. Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal

##### *Animals, including humans*

1. 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
2. Identify that humans and some animals have skeletons and muscles for support, protection and movement

##### *Rocks*

1. Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties
2. Describe in simple terms how fossils are formed when things that have lived are trapped in rock
3. Recognise that soils are made from rocks in organic matter

#### Year 4 Programme of study

##### *Living things and their habitats*

1. Recognise that living things can be grouped in a variety of ways
2. Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment
3. Recognise that environments can change and that this can sometimes pose dangers to living things

##### *Animals, including humans*

1. Describe the simple functions of the basic parts of the digestive system in humans
2. Construct and interpret a variety of food chains, identifying producers, predators and prey

##### *Sound*

1. Identify how sounds are made, associating some of them with something vibrating
2. Recognise that vibrations from sounds travel through a medium to the ear
3. Recognise that sounds get fainter as the distance from the sound source increases

## Upper Key Stage 2

### Working Scientifically

1. Planning different types of scientific enquiries to answer questions, including recognizing and controlling variables where necessary
2. Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
3. Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
4. Using test results to make predication to set up further comparative and fair tests
5. 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
6. Identifying scientific evidence that has been used to support or refute ideas or arguments

### Year 5 Programme of study

#### *Living things and their habitats*

1. Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird
2. Describe the life process of reproduction in some plants and animals

### Year 6 Programme of study

#### *Living things and their habitats*

1. 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
2. Give reasons for classifying plants and animals based on specific characteristics

#### Animals, including humans

1. Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function

#### Evolution and inheritance

1. Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago
2. Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents
3. Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution

## Art and Design

At Avon Tyrrell, we aim to engage, inspire and challenge learners, encouraging them to experiment and create their own pieces of art, craft and design.

Key areas covered may include:

1. Improving mastery of art and design techniques, including drawing, painting and sculpture with a range of materials
2. Increasing awareness of different kinds of art, craft and design

## Design and Technology

Developing a creative and technical understanding enables young people to perform task confidently and to participate successfully in a technological world. Learners need to learn to become resourceful, taking appropriate risks to develop ideas and solve problems.

Key areas covered include:

### Design

1. 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
2. Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

### Make

1. 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

### Evaluate

1. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

### Technical Knowledge

1. Apply their understanding of how to strengthen, stiffen and reinforce more complex structures

## Geography

The Geography National Curriculum aims to ensure that all learners develop an understanding of the key physical and human geographical features of the world, as well as geographical key skills. The New Forest offers a wide range of geographical features for study.

### Human and physical geography

- 1) Describe and understand key aspects of:
  - a) Physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle
  - b) Human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water

### Geographical skills and fieldwork

1. Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied
2. Use the eight points of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world

## History

Avon Tyrrell is steeped in local History – the house is a Grade I Listed building and is situated on the edge of The New Forest National Park.

1. A local history study
  - a. A study over time tracing how several aspects of natural history are reflected in the locality
  - b. A study of an aspect of history or site dating from a period before 1066 that is significant in the locality
2. A study of an aspect or theme in British history that extends pupils' chronological knowledge beyond 1066

## **Physical Education**

With a wide range of outdoor activities available at Avon Tyrrell, there are many ways to link to the National Curriculum for Physical Education, to enable all young people to succeed and excel in a wide range of physically demanding activities. Our activities provide the perfect opportunity for learners to become physically confident in a way which supports their health and fitness.

1. Take part in outdoor and adventurous activity challenges both individually and within a team
2. Develop flexibility, strength, technique, control and balance