# Year 4 Autumn Term 'Robots and Gadgets'

## ENGLISH

**Writing composition:**

The children will write in many contexts (not just in literacy lessons) and for different purposes, including a new chapter for The Iron Man, 'How to train your robot'instructions and a discursive piece of writing entitled'Could a teacher ever be replaced by a robot?'

The children study structure and language features before they write. The writing process involves planning, drafting, editing and proof reading, evaluation and oral presentation and/or publishing.

Handwriting is cursive (joined). We encourage all children to use pen so that they develop a fluent and confident handwriting style.

Great effort and improvement is recognised and celebrated. Some children may even win a Star Writer award!

**Grammar and punctuation:**

Whenever possible, this is taught in the context of the writing process, but there may be times when discrete lessons are needed. The programme of study includes:

- Use expanded noun phrases and fronted adverbials.
- Know the difference between the plural and possessive -s
- use paragraphs and use devices to aid cohesion.
- use a range of nouns and pronouns
- use time connectives
- use speech marks, apostrophes and commas.
- know the language of determiner, pronoun, possessive pronoun and adverbial.

**Spelling:**

In year 4 the children have daily spelling sessions following the Spelling Pathway programme from Babcock Education.

**Reading**

The children have a reading session every day. They read a range of literature (including poetry, novels and nonfiction books) and are encouraged to make recommendations to others. The children have regular guided reading sessions with their teacher, which develop comprehension skills. The class teacher reads aloud a class novel; this term the novel is The Iron Man by Ted Hughes.

Children who are still struggling to decode will be taught to do this through a rigorous phonics catch up programme. Children will develop their understanding of literature through discussion activities.

## ART and DESIGN

The children will produce a range of artwork based on computer 'motherboards'.

They will manipulate digital images and use tile printing to create a large collage.

## HISTORY

Children will be studying changes in communication gadgets from caveman to spaceship. They will then focus on British developments in telephones and study BT's role, particularly the communication advancements developed at Adastral Park. A guest speaker from Adastral Park will visit both classes.

## MATHS

We believe that Maths is A creative subject. Reasoning and Problem Solving skills are at the heart of mathematical understanding and are woven into our daily maths lesson. In addition, our learners are given frequent opportunities to use mathematics in other areas of the curriculum.

**Number/Calculation**

Counting in Year Four is extended to include negative numbers. They will be ordering, comparing, adding and subtracting numbers with up to 4 digits. By then end of year four, children will have been taught all of the tables up to 12 x 12 with the related division facts. Children will be supported to learn formal multiplication methods.

**Geometry/Measure/Statistics**

Pupils will use place value to convert between measures e.g. cm to m.

They will calculate the perimeter of shapes in the rectangle family and find the area of these shapes by counting squares on a grid whilst making links with work done using arrays for multiplication.

They will read the time on analogue and digital clocks and begin to convert between the two.

They will interpret graphs and charts and in Year Four, this extends to include line graphs which show continuous data over time such as growth or temperature.

**Fractions and decimals**

Work with fractions extends to include hundredths. They will add and subtract fractions with the same denominator using visual aids as support where needed. The children will learn how tenths and hundredths relate to the decimal system e.g. in the context of money.

**Maths talk**

Talk is a crucial tool in the understanding of maths. Here, learners are encouraged to use precise mathematical language to discuss ideas, create debate and identify and resolve problems. This may take the form of whole class discussion, paired talk or group collaboration.

## DESIGN TECHNOLOGY

The children will use electronic systems to create an interactive game.

They will design, make and evaluate their product.

## GEOGRAPHY

This term children will be taught about the continents and begin to recognise countries within them. They will make use of atlases, globes and maps to find places mentioned in the news with a focus on weather stories. Through this they will deepen their understanding of the UK and Europe.

## MODERN LANGUAGES

The children will continue with their study of French, when they will:

- speak
- read
- write
- and look at the culture of the countries where French is spoken

## MUSIC

The children will be listening and appraising various electronic music as inspiration for their own digital compositions.

All children will develop their understanding of musical notation when learning to play the recorder. They will perform in solo and ensemble contexts.

The children will be rehearsing and performing songs from the musical Goldilocks and the Three Bears.

## SCIENCE

During the topic of electricity children will be able to identify common appliances that run on electricity. They will learn how to construct a series electrical circuit and be able to name its parts and investigate how to make bulbs brighter or dimmer. They will learn to recognise some common conductors and insulators.

During the study of animals the children will learn the purpose of different kinds of teeth in humans as well as be able to describe the basic parts of the digestive system. They will be constructing and interpreting a variety of food chains.

Children will have opportunities to carry out practical scientific investigations.

## COMPUTING

The main focus of computing this term will be to develop children's understanding of computational thinking through computer programming. They will extend their experience of computer programming initially using Beebots and then moving onto Scratch Junior where they will learn to program using precise language and an approach which is both incremental (small steps) and iterative (checking and debugging /improving).

In order to improve their word processing skills we will be introducing typing games on the computers. Children will refine their web researching skills and will learn how to take and manipulate digital images.

Within our E Safety focus for the term we will using our web research sessions to reinforce the rules regarding copyright and will be reminding children that they need to check the reliability of information found on the net. We will also be reminding children that following the SMART rules will help to keep us safe when online.

## PHYSICAL EDUCATION

The children will develop and perform a dance using a range of movement patterns based on the movements of robots. They will learn to play Tag Rugby to and develop their attacking and defending skills.

The children will have regular swimming sessions.

## RELIGIOUS EDUCATION and PSHE

In RE the children will study what people believe, expression of faith and lifestyles in the context of Buddhism.

*The School uses the Suffolk Agreed Syllabus for RE*

In PSHE sessions will focus on E-safety, media – communication and technology and peer influences. PSHE is enriched with circle time, Building Learning Power and mentoring sessions.