MEDIUM TERM PLANNING | UNIT OBJECTIVES
Zetland Primary School

Inventions and Inventors

Year Group: 3/4

Topic Intent

Throughout this unit we will be exploring inventors and inventions that changed the world. We begin by exploring the children's views on different inventions and developing a chronology of key inventions through time and their impact. We explore different inventions in detail and find out more about the reason for their discovery. Alongside the history of real inventions, we will also be focusing on our key class text 'The Iron Man' by Ted Hughes, using this as a stimulus for writing. We explore descriptive language around the Iron Man and also explore character viewpoints through Hogarth and his dad. Using T4W we will become familiar with the style of the story before continuing using our own imagination. Science links closely with some of our focus inventions, beginning with learning about light before moving on to electricity. Children will make their own successful circuits before incorporating this knowledge in to DT lessons where they will create their own Iron Man robot designs with glowing eyes!

English – National Curriculum and skills

Composition

- plan their writing by:
  - discussing writing similar to that which they are planning to write in order to understand and learn from its structure, vocabulary and grammar
  - discussing and recording ideas
- draft and write by:
  - composing and rehearsing sentences orally
  - Use a range of effective vocabulary
  - organising paragraphs around a theme
  - in narratives, creating settings, characters and plot
  - in non-narrative material, using simple organisational devices [for example, headings and sub-headings]
- evaluate and edit by:
  - assessing the effectiveness of their own and others' writing and suggesting improvements

Overview

Story writing – T4W imitation then innovation of Iron Man plot.

Descriptive language – expanded noun phrases, similes, metaphors and rhetorical questions through the Iron Man Text.

Diary Writing – personal, from Hogarth's viewpoint and then from Dad's viewpoint.

Newspaper report detailing the Iron Man's destruction of local farms.

○ proposing changes to grammar and vocabulary to improve consistency, including the accurate use of pronouns in sentences • proofread for spelling and punctuation errors • read their own writing aloud to a group or the whole class, using appropriate intonation and controlling the tone and volume so that the meaning is clear Handwriting and Presentation • use the diagonal and horizontal strokes that are needed to join letters and understand which letters, when adjacent to one another, are best left unjoined • increase the legibility, consistency and quality of their handwriting Vocabulary, grammar & punctuation • Punctuate sentences accurately * • Use capital letters appropriately * • Use fronted adverbials followed by a comma • 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 • Use a range of appropriate, specific vocabulary relevant to the topic/genre	Menu Writing – What would the Iron Man eat? Use of alliteration and playing around with language for a purpose.

MEDIUM TERM PLANNING | UNIT OBJECTIVES

Zetland Primary School

Year Group: 3/4

History – National Curriculum and skills	Overview
General History: • Develop a chronologically secure knowledge and understanding of British, local and world History. • Establish clear narratives within and across the periods that they study. • Note connections, contrasts and trends over time. • Develop the appropriate use of historical terms. • Answer and sometimes devise historically valid questions. • Use relevant historical information to answer questions. • Understand that knowledge of the past is constructed from a range of sources. Topic Specific: • a study of an aspect or theme in British history that extends pupils' chronological knowledge beyond 1066	Children will explore time lines further, placing events from their own lives and beyond in chronological order. Children will use timelines to help place key inventions, comparing which they feel are most useful/influential and why. Children will look at significant people from history and their part in inventing something to solve a problem, key figures include Thomas Edison, The Wright Brothers, Charles Macintosh and Alexander Graham Bell. Children will explore how everyday items such as the telephone has changed over time.

Geography - National Curriculum and skills	Overview
Map and Field work • To use maps, atlases, globes and digital /computer mapping to locate counties and cities in the UK. , Human Geography/Locational knowledge • Name and locate counties and cities of the UK and their identifying human and physical characteristics • Locate the world's countries, using maps to focus on Europe	Children will use maps, globes and technology to familiarise themselves with the world, locating continents, oceans and countries. We will use technology to gather information and data about different countries and use this to draw comparison and make fact files about contrasting localities.

MEDIUM TERM PLANNING | UNIT OBJECTIVES

Zetland Primary School

Year Group: 3/4

Design Technology - National Curriculum and skills	Overview
Design • • 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 Make • • select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately • • 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 • • 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 Technical knowledge • • apply their understanding of how to strengthen, stiffen and reinforce more complex structures • • understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]	Circuits Children will apply their science knowledge to create a robot design which can light up using an integral circuit. Children to design their robot using the materials available to then to explore ways of fastening these materials together. Children need to experiment with the circuit prior to its placement within the robot. Children to evaluate their design. Shadow Puppets Children will use their knowledge from the science unit-light, to design and create their own shadow puppet to use within a group performance. Children to explore different materials and decide upon which is fit for purpose. Children to develop their template and cutting skills for this task. Evaluation will be linked to how clear and defined the puppet is when casting a shadow.

MEDIUM TERM PLANNING | UNIT OBJECTIVES

Zetland Primary School

Year Group: 3/4

Art - National Curriculum and skills	Overview
Pupils should be taught to develop their techniques, including their control and their use of materials, with creativity, experimentation and an increasing awareness of different kinds of art, craft and design. Pupils should be taught: • • 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] • • about great artists, architects and designers in history.	Inventors. Children will learn about the artist Wassily Kandinsky who is said to be the founder of abstract art. They will explore colour and learn about the colour wheel and how colours can compliment each other. They will learn about how Kandinsky saw colours when he heard music and how he used this in his art. The children will explore this technique and will create a picture using this technique using pens and watercolours. Following this they will learn about the abstract artist Piet Mondrian and will learn about how he used lines and geometric shapes in his work. They will use what they have learnt about the use of colour to reproduce art in the style of Mondrian

MEDIUM TERM PLANNING | UNIT OBJECTIVES

Zetland Primary School

Year Group: 3/4

Key Questions	Wider Experiences	Vocabulary
How have key inventions changed over time? Why is this? What inspired inventors to create something new? Which surfaces reflect light the best? How does light travel? Why doesn't/ does the circuit light? What themes do you notice in the work of the artist?	Science Day Class Assembly Harvest Assembly Christmas Productions Choir Events (Year 4)	Invention Inventor Problem Solution Retina Pupil Reflect Transparent Translucent Opaque Shadow Circuit Conductor Insulator Switch

Linked Texts	Home Learning Opportunities
The Iron Man – Ted Hughes	Find out more about an invention that makes a different to your life. Think of your own invention – use your imagination and think of a problem that it could solve.

Other subjects

PE – Invasion Games and Dance
Music – Recorders and Charnaga – Let your Spirit Fly
MfL – French - Y3 About Me and Hobbies and Pets Y4 Going to school and Going to Work
Science – Light and Electricity
Maths – Y3 Place Value, Addition & Subtraction, Multiplication & Division Y4 Place Value, Addition & Subtraction, Length & Perimeter, Multiplication & Division
Computing – Simulations, Online Safety Y4 Spreadsheets, Online Safety and Hardware investigations
RSHE – Relationships
RE - Y3 Hinduism, The Christmas Story and Celebrations around the world. Y4 Religious Rules, Hinduism and The Christmas Story

MEDIUM TERM PLANNING | UNIT OBJECTIVES

Zetland Primary School

Year Group: 3/4