Haddenham Community Junior School -Curriculum Map for years 3-6

The sections below give the main areas of learning for each National Curriculum subject across Key Stage 2.

Art and Design

Pupils will:

- ✓ Use experiences, other subjects across the curriculum and ideas as inspiration for artwork.
- ✓ Develop and share ideas in a sketchbook and in finished products.
- ✓ Improve mastery of techniques.
- ✓ Learn about the great artists, architects and designers in history.

Computing

Pupils will:

- ✓ Design and write programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.
- ✓ Use sequence, selections and repetition in programs; work with variables and various forms of input and output; generate appropriate inputs and predicted outputs to test programs.
- ✓ Use logical reasoning to explain how a simple algorithm works and to detect and correct errors in algorithms and programs.
- ✓ Understand computer networks including in the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration.
- ✓ Describe how internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely.
- ✓ Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

Design and Technology

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment. When designing and making, **pupils will be taught to:**

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, pattern pieces and computer-aided design.

Make

- ✓ Select from and use a wider range of tools and equipment to perform practical tasks, such as 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
- ✓ understand how key events and individuals in design and technology have helped shape the world Technical knowledge
- ✓ Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.
- ✓ Understand and use mechanical systems in their products, such as gears, pulleys, cams, levers and linkages.
- ✓ Understand and use electrical systems in their products, such as series circuits incoporating switches, bulbs, buzzers and motors.
- ✓ Apply their understanding of computing to programme, monitor and control their products.

Cooking and nutrition

- ✓ Understand and apply the principles of a healthy and varied diet.
- ✓ 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

Technical knowledge

- ✓ Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.
- ✓ Understand and use mechanical systems in their products, such as gears, pulleys, cams, levers and linkages.
- ✓ Understand and use electrical systems in their products, such as series circuits incoporating switches, bulbs, buzzers and motors.
- ✓ Apply their understanding of computing to programme, monitor and control their products.

Cooking and nutrition

- ✓ Understand and apply the principles of a healthy and varied diet.
- ✓ 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.

Geography

Pupils will:

- ✓ Locate the world's countries, with a focus on Europe and countries of particular interest to pupils.
- ✓ Locate the world's countries, with focus on North and South America and countries of particular interest to pupils.
- ✓ Key geographical features of the countries of the United Kingdom, and understanding how some of these aspects have changed over time.
- ✓ Locate the geographic zones of the world.
- ✓ Understand the significance of the geographic zones of the world.
- ✓ Understand geographical similarities and differences through the study of human and physical geography of a region or area of the United Kingdom (different from that taught at Key Stage 1).
- ✓ Understand geographical similarities and differences through the study of human and physical geography of a region or area in a European country.
- ✓ Understand geographical similarities and differences through the study of the human and physical geography of a region or area within North or South America.
- ✓ Describe and understand key aspects of: **physical geography**, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes and the water cycle AND **human geography**, including: settlements, land use, economic activity including trade links and the distribution of natural resources including energy, food, minerals and water supplies.
- ✓ Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied.
- ✓ Use the eight points of a compass, four-figure grid references, symbols and keys (including the use of Ordnance Survey maps) to build knowledge of the United Kingdom and the world.
- ✓ Use a wide range of geographical sources in order to investigate places and patterns.
- ✓ Use fieldwork to observe, measure and record the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs and digital technologies

Modern Foreign Languages

Pupils will:

- ✓ Speak in Spanish
- ✓ Read in Spanish
- ✓ Write in Spanish
- ✓ The culture of Spain

Music

Pupils will:

- ✓ Play and perform in solo and ensemble contexts, using voice and playing instruments with increasing accuracy, control and expression.
- ✓ Improvise and compose music using the inter-related dimensions of music separately and in combination.
- ✓ Listen with attention to detail and recall sounds with increasing aural memory.
- ✓ Use and understand the basics of the staff and other musical notations.
- ✓ Appreciate and understand a wide range of high-quality live and recorded music from different traditions and from great musicians and composers.
- ✓ Develop an understanding of the history of music

Physical education

Pupils will:

- ✓ Play competitive games, modified where appropriate, in badminton football, netball, rounders, cricket, hockey, tennis, and tag rugby,
- ✓ Apply basic principles suitable for attacking and defending for team games.
- ✓ Take part in gymnastics activities.
- ✓ Take part in athletics activities.
- ✓ Perform dances.
- ✓ Take part in outdoor and adventurous activity challenges both individually and within a team.
- ✓ Swimming and water safety: take swimming instruction either in Key Stage 1 or Key Stage 2.

Religious education

Pupils will:

- ✓ Study the beliefs, festivals and celebrations of Christianity.
- ✓ Study at least two other religions in depth. Choose from Buddhism, Hinduism, Islam, Judaism or Sikhism.
- ✓ Study three of the major six religions not studied in depth in order to gain a brief outline.
- ✓ Study other religions of interest to pupils

Science

Working scientifically

Across all year groups scientific knowledge and skills should be learned by working scientifically

Biology

Plants

- ✓ Look at the function of parts of flowering plants, requirements of growth, water transportation in plants, life cycles and seed dispersal.

Evolution and inheritance

- ✓ Look at resemblance in offspring.
- ✓ Look at changes in animals over time.
- ✓ Look at adaptation to environments.
- ✓ Look at differences in offspring.
- ✓ Look at adaptation and evolution.
- ✓ Look at changes to the human skeleton over time.

Animals and humans

- ✓ Look at nutrition, transportation of water and nutrients in the body, the muscle and skeleton system of humans and animals.
- ✓ Look at the digestive system in humans.
- ✓ Look at teeth.
- ✓ Look at the human circulatory system.

All living things

- ✓ Identify and name plants and animals
- ✓ Look at classification keys.
- ✓ Look at the life cycle of animals and plants.
- ✓ Look at classification of plants, animals and micro organisms.
- ✓ Look at reproduction in plants and animals, and human growth and changes.
- ✓ Look at the effect of diet and exercise and drugs.

Chemistry

Rocks and fossils

- ✓ Compare and group rocks and describe the formation of fossils.

States of matter

- ✓ Look at solids, liquids and gases, changes of state, evaporation, condensation and the water cycle.

Materials

- ✓ Examine the properties of materials using various tests.
- ✓ Look at solubility and recovering dissolved substances.
- ✓ Separate mixtures.
- ✓ Examine changes to materials that create new materials that are usually not reversible.

Physics

Light

- ✓ Look at sources, seeing, reflections and shadows.
- ✓ Explain how light appears to travel in straight lines and how this affects seeing and shadows.

Sound

- ✓ Look at sources, vibration, volume and pitch.

Electricity

- ✓ Look at appliances, circuits, lamps, switches, insulators and conductors.
- ✓ Look at circuits, the effect of the voltage in cells and the resistance and conductivity of materials.

Forces and magnets

- ✓ Look at contact and distant forces, attraction and repulsion, comparing and grouping materials.

- ✓ Look at poles, attraction and repulsion
- ✓ Look at the effect of gravity and drag forces.
- ✓ Look at transference of forces in gears, pulleys, levers and springs.

Earth and space

- ✓ Look at the movement of the Earth and the moon.
- ✓ Explain day and night.