

1. Science

- ♦ A. Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
- ♦ B. taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate

Living things and their habitats Y5

- ♦ g. describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird
- ♦ h. describe the life process of reproduction in some plants and animals

Animals including humans Y5

- ♦ i. describe the changes as humans develop to old age

Properties and changes of materials Y5

- ♦ J. compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets
- ♦ K. know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution
- ♦ L. use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating
- ♦ m. give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic
- ♦ n. demonstrate that dissolving, mixing and changes of state are reversible changes
- ♦ O. explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes

Earth and Space

- ♦ P. describe the movement of the Earth, and other planets, relative to the Sun in the solar system
- ♦ Q. describe the movement of the Moon relative to the Earth
- ♦ R. describe the Sun, Earth and Moon as approximately spherical bodies
- ♦ S. use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.

Forces Y5

- ♦ 1. explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object
- ♦ U. Identify the effects of air resistance, water resistance and friction, that act between moving surfaces
- ♦ V. recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect

Living things and their habitats Y6

- ♦ W. describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals
- ♦ X. give reasons for classifying plants and animals based on specific characteristics.

Animals including humans Y6

- ♦ Y. identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood
- ♦ Z.1 recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.
- ♦ Z.2. describe the ways in which nutrients and water are transported within animals, including humans.

Evolution and inheritance Y6

- ♦ Z.3. recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago
- ♦ Z.4. recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their

Light Y6

- ♦ Z.6. recognise that light appears to travel in straight lines
- ♦ Z.7. use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye
- ♦ Z.8. explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes
- ♦ Z.9. use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.

Electricity

- ♦ Z.10. associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit
- ♦ Z.11. compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches
- ♦ Z.12. use recognised symbols when representing a simple circuit in a diagram

2. Computing

- ♦ A. Design & write programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.
- ♦ B. Use sequence, selection and repetition in programs; work with variables and various forms of input and output; generate appropriate inputs and predicted outputs to test programs.
- ♦ C. Use logical reasoning to explain how a simple algorithm works and to detect and correct errors in algorithms and programs
- ♦ D. Understand computer networks including the internet; how they can provide multiple services, such as the world-wide-web; and the opportunities they offer for communication and collaboration.
- ♦ E. 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.

3. History

- ♦ A. a study of an aspect or theme in British history that extends pupils' chronological knowledge beyond 1066
- ♦ B. the achievements of the earliest civilizations - an overview of where and when the first civilizations appeared and a depth study of one of the following: Ancient Sumer; The Indus Valley; Ancient Egypt; The Shang Dynasty of Ancient China
- ♦ C. Ancient Greece - a study of Greek life and achievements and their influence on the western world
- ♦ D. a non-European society that provides contrasts with British history - one study chosen from: early Islamic civilization, including a study of Baghdad c. AD 900; Mayan civilization c. AD 900; Benin (West Africa) c. AD 900-1300

4. Geography

- ♦ A. Name & locate counties, cities, regions & features of UK
- ♦ B. Understand latitude, longitude, Equator, hemispheres, tropics, polar circles & time zones
- ♦ C. Study a region of Europe, and of the Americas
- ♦ D. Understand biomes, vegetation belts, land use, economic activity, distribution of resources, etc.
- ♦ E. Use 4-figure grid references on OS maps
- ♦ f. Use fieldwork to record & explain areas

5. Art and Design

- ♦ A. Use sketchbooks to collect, record, review, revisit & evaluate ideas
- ♦ B. Improve mastery of techniques such as drawing, painting and sculpture with varied materials
- ♦ C. Learn about great artists, architects & designers

6. Modern languages

- ♦ A. Listen & engage
- ♦ B. Engage in conversations, expressing opinions
- ♦ C. Speak in simple language & be understood
- ♦ D. Develop appropriate pronunciation
- ♦ E. Present ideas & information orally
- ♦ f. Show understanding in simple reading
- ♦ g. Adapt known language to create new ideas
- ♦ h. Describe people, places & things
- ♦ i. Understand basic grammar, e.g. gender

7. Music

- ♦ A. Perform with control & expression solo & in ensembles
- ♦ B. improvise & compose using dimensions of music
- ♦ C. Listen to detail and recall aurally
- ♦ D. Use & understand basics of staff notation
- ♦ E. Develop an understanding of the history of music, including great musicians & composers

8. Physical education

- ♦ A. Use running, jumping, catching and throwing in isolation and in combination
- ♦ B. Play competitive games, applying basic principles
- ♦ C. Develop flexibility & control in gym, dance & athletics
- ♦ D. Take part in Outdoor & Adventurous activities
- ♦ E. Compare performances to achieve personal-bests
- ♦ f. Swimming proficiency at 25m (KS1 or KS2)

9. Religious education

Barnsley agreed syllabus

10. Design Technology

- ♦ A. Use research & criteria to develop products which are fit for purpose and aimed at specific groups
- ♦ B. Use annotated sketches, cross-section diagrams & computer-aided design
- ♦ C. Analyse & evaluate existing products and improve own work
- ♦ D. Use mechanical & electrical systems in own products, including programming
- ♦ E. Cook savoury dishes for a healthy & varied diet