Wales Primary School Science Curriculum: Year 5

Core Scientific Skills	Biology	Chemistry	Physics
Working Scientifically 1. Planning different types of scientific enquiries to answer questions, including recognising 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 predictions to set up further comparative and fair tests 5. Reporting and presenting findings from enquiries, including conclusions, casual relationships and explanations of and degree of trust in results 6. Identifying scientific evidence that has been used to support or refute ideas or arguments	**Living things and their habitats** 1. Describe the differences in the lifecycles of a mammal, an amphibian, an insect and a bird 2. Describe the life processes of reproduction in some plants and animals **Animals, including humans** 1. Describe the changes as humans develop to old age Link to DT 2. Understand and apply the principals of a healthy and varied diet 3. Prepare and cook a variety of predominantly savoury dishes using cooking techniques 4. Understand seasonality and know where and how a variety of ingredients are reared, grown, caught and processed	**Properties and changes of materials** **1.** Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical / thermal) and response to magnets **2.** Know that some materials will dissolve in liquid to form a solution and describe how to recover a substance from a solution **3.** Use knowledge of solids, liquids and gases to decide how mixtures might be separated through sieving, filtering and evaporating **4.** Give reasons based on evidence from comparative and fair tests for the particular uses of everyday materials, including metals, wood and plastic **5.** Demonstrate that dissolving, mixing and changes of state are reversible **6.** Explain that some changes result in the formation of new materials and that this is irreversible	**Earth and space** 1. Describe the movement of the Earth and other planets relative to the Sun in the solar system 2. Describe the movement of the Moon relative to the Earth 3. Describe the Sun, Earth and Moon as approximately spherical bodies 4. Use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky **Forces** **1.** Explain that unsupported objects fall towards the Earth because of the force of gravity **2.** Identify the effects of air resistance, water resistance and friction, that act between moving surfaces **3.** Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect

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Art

Create and communicate

1. Use sketch books to collect, record, review, revisit and evaluate ideas

Using techniques to create effect

2. Improve mastery of techniques such as drawing, painting and sculpture with varied materials

Appreciation of artists who inspire and influence us

3. Learn about great artists, architects and/or designers

Geography

Location Knowledge

1. Name and locate countries, cities, regions and features of UK
2. Identify latitude, longitude, Equator, hemispheres, tropics, polar circle and time zones

Place Knowledge

3. Study human and physical geography of a region of Europe and North/South America

Human and Physical Geography

4. Understand biomes, vegetation belts, land use, economic activity, distribution of resources

Skills and Fieldwork

5. Use 4 and 6 figure grid references on OS maps
6. Use field work to observe, measure, record and explain features in the local area

Modern Foreign Languages

Listening, Exploring and Speaking

1. Listen and show understanding by responding
2. Engage in conversations, expressing opinions
3. Speak in simple language to be understood

Understanding and Communication

4. Develop appropriate pronunciation
5. Present ideas and information orally to a range of audiences

Applying and Developing Fluency

6. Adapt known language to create new ideas
7. Describe people, place and things orally and in writing
8. Understand basic grammar and apply to build sentences

Physical Education

Acquiring and developing skills

1. Use and refine movements, skills and actions in isolation or combination
2. Develop flexibility, strength, technique, control and balance in gym, dance and athletics

Selecting and applying

3. Play competitive games
4. Select and apply appropriate strategies, tactics and ideas (eg attacking and defending)
5. Perform dances using a wide range of movement patterns

Evaluate and improve

6. Compare performance with previous ones and demonstrate improvement to achieve personal bests
7. Identify what makes a performance effective and suggest improvements

Knowledge and understanding of fitness and health

1. Warm up and prepare appropriately for specific activities

Design Technology

Design

1. Use research and design criteria to develop products that are fit for purpose and aimed at specific groups
2. Use annotated sketches, cross section diagrams and computer aided design

Make

3. Select and use a wide range of tools to perform practical tasks accurately
4. Select from and use a wide range of materials and components

Evaluate

5. Evaluate existing products
6. Improve own products using design criteria

Technical Knowledge

7. Use mechanical and electrical systems in own products (including programming)
8. Understand seasonality to cook savoury dishes for a healthy and varied diet

History

Chronological Understanding

1. Place events and people into the correct time period
2. Use correct dates and vocabulary related to the passing of time

Knowledge and understanding of events, people and changes

3. Understand the features of the periods/societies studied (ideas, attitudes, beliefs of men, women and children)
4. Identify, describe reasons for, the results of and make links between historical events, situations and changes

Historical interpretation

5. Recognise that the past is represented and interpreted in different ways

Historical enquiry

6. Select and record relevant information from varied sources

Music

Play and Perform

1. Perform with control and expression in solos and ensembles

Create and Compose

2. A Improvise and compose using dimensions of music

Patterns: Use and Apply Musical Notation

3. Use and understand basics of staff notation

Listen, Understand and Appreciate

4. Listen to detail and recall aurally

Music Over Time

5. Develop an understanding of history of music including great musicians and composers

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Learning about Religion

1. Describe the key aspects of religions; the people, stories and traditions
2. Describe practices and ways of life in religions
3. Identify and describe similarities and differences within and between religions and festivals
4. Investigate the significance of religion in the local, national and global communities
5. Consider the meaning of a range of forms of religious expression
6. Describe religious responses to ethical questions

Learning from Religion

7. Reflect on belonging to a faith community
8. Respond to challenges of commitment
9. Discuss views of religious truth and belief
10. Reflect on right and wrong and responses to them
11. Reflect on sources of inspiration