Year 5 Science Subject Map

Properties and changes in materials	Forces	Earth and Space	Living Things and Their Habitats	Animals Including Humans

DRIVER WORDS						
EYFS	*Year 1*	*Year 2*	*Year 3*	*Year 4*	*Year 5*	*Year 6*
Observe, Ask questions, Name,	Sort, Record, Label, Describe, Compare	Identify, Explore, Observe, Understand, Find out, Recognise	Enquire, Gather, Classify, Present, Draw conclusions, Identify differences and similarities, Find and use evidence, Investigate , Predict	Measure, Use scientific language, Find patterns, Construct, Interpret, Research, Associate	Plan, Report, Use our knowledge, Give reasons, Demonstrate, Explain	Use evidence, Conclude

WORKING SCIENTIFICALLY AGE RELATED EXPECTATIONS

1.**Plan** different types of scientific enquiries to answer questions, including **recognising** and controlling variables where necessary.

2.Take measurements, using a range of scientific equipment with increasing accuracy, taking repeat readings where necessary.

3. Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.
4.Use test results to **make predictions** to set up further **comparative** and fair tests.

5. **Report** and **present findings** from enquiries in oral and written forms, such as displays or presentations. This includes drawing conclusions and **explaining** how things happen and how results can be trusted.

6.**Identify scientific evidence** that has been used to support or refute ideas of arguments.

SCIENTIFIC VOCABULARY

anomalous, answer, biologist, biology, change, characteristics, chart, chemist, chemistry, classify, compare, conclusion, contrast, criteria, data, **dependent/independent,** diagram, discuss, effect, evaluate, evidence, experiment, fair test, forces, growth, **hypothesis,** identify, investigate, materials, measure, move, observe, physicist, physics, predict, pull, push, question, record, research, **results,** scientist, seasons, sort, surface, **systematic,** table, test, temperature, **theorise,** theory, time, **variables,** working scientifically

UNIT RELATED EXPECTATIONS

LIVING THINGS AND THEIR HABITATS

7.**Describe the differences** in the life cycles of a mammal, an amphibian, an insect and a bird.
8.**Describe** the life process of reproduction in some plants and animals.

ANIMALS INCLUDING HUMANS

9.**Describe** the changes as humans develop to old age.

PROPERTIES AND CHANGES IN MATERIALS

10.**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.
11.**Understand** that some materials will dissolve in liquid to form a solution, and **describe** how to recover a substance from a solution.
12.**Use knowledge** of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.
13.**Give reasons**, **based on evidence** from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.
14.**Demonstrate** that dissolving, mixing and changes of state are reversible changes.
15. **Explain** that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes **associated** with burning and the action of acid on bicarbonate of soda

EARTH AND SPACE

16.**Describe** the movement of the Earth, and other planets, relative to the Sun in the solar system.
17.**Describe** the movement of the Moon relative to the Earth.
18.**Describe** the Sun, Earth and Moon as approximately spherical bodies.

FORCES

20.**Explain** that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.
21. **Identify** the effects of air resistance, water resistance and friction that act between moving surfaces.
22.**Recognise** that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.