Primary Science Syllabus Year 6		
Sharing Our World		
Strand	**Learning Outcome**	**Notes and additional guidelines**
6.1.1	Know that animals have body systems.	• Know that some animals have inner body systems such as the digestive system that allow them to function properly. ✓ *The digestive system includes organs (mention the mouth, teeth, tongue, oesophagus, stomach, liver, gall bladder, pancreas, small intestine and large intestine.* ✓ *Carry out a simple demonstration of how the digestive system works e.g. banana sandwich - https://www.youtube.com/watch?v=7av19YhNkhE*
6.1.2	Recognize that knowledge on food groups help us build healthy diets	• Classify food into basic categories such as meat, eggs and cheese /fruit and vegetables / bread and cereals. • Use the above classifications to build a healthy diet. ✓ *Food groups names – fats and oils, carbohydrates, proteins, cereals, fruit and vegetables, dairy.* ✓ *Create and choose food for a healthy diet using the food plate* ✓ *Read and understand food labels.*
6.2.1	Observe differences between plants and animals.	• Know that although all living things share certain basic life processes such as feeding, breathing, movement, growth and reproduction, there exist important differences between plants and animals in all these processes. ✓ *Highlight differences in plants and animals with regards to feeding, breathing, movement, growth, reproduction.* ✓ *Revise the basic needs of plants emphasizing the reproduction process of plants including pollination.*

6.3.1	Know that the environment is a system which can be harmed.	• Know about dangers posed to the environment such as over population, pollution, the destruction of rain forests, acid rain, greenhouse effect, poaching…. • Know that conflict of interest arises around these issues but they should also be aware of the importance of planning for the protection of the environment as the quality of life depends on the quality of the environment. ✓ *Develop/Simulate discussions and debates around these issues.* ✓ *Refer to newspaper articles and other articles to build arguments and debates.* ✓ *Implement across the curriculum through report writing, creating posters/slogans etc.*
6.4.1	Be able to measure temperature, rainfall, wind speed and direction.	• Record the temperature, rainfall, wind speed and direction through collection of weather reports etc. and through first-hand experience in handling weather instruments. ✓ *Use weather instruments to collect data and compare their readings to the actual weather report.* ✓ *Discuss and analyse different types of weather reports.*
Energy		
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6.5.1	Become aware of the term gravity as the force which pulls things down. 1 lesson – simple experiments to demonstrate gravity and use of videos	• Understand that all things fall down to the ground towards the centre of the earth • know that the pull of earth on all objects is called gravity • know that gravity acts on all objects on earth ✓ *Carry out simple experiments to demonstrate the force of gravity. e.g.: dropping different items from the same height and observing that they fall down together.*

6.5.2	Know that air resistance can slow down the movement of objects.	• Know that the force of air when an object moves is called air resistance • Know that air resistance always acts opposite to the direction of motion • Know that the greater the area of an object, the greater is the amount of air resistance ✓ *Carry out simple investigations to show that air resistance slows down a falling object e.g. flat paper vs scrunched papers; paper spinners investigation; parachutes investigation etc.* ✓ *Apply forces (including air resistance) to everyday life situations e.g. streamlining in vehicles, animals, sports etc.*
6.6.1 6.6.2	Know that a switch can be used to stop electric current from flowing. Know that switches are designed in a variety of ways.	• Understand the need of a switch to control when current flows through a circuit. ✓ *Understand how a switch works.* ✓ *Relate switches to everyday life examples.* • Become familiar with a number of different switches. ✓ *Know about different types of switches e.g. magnetic switches, spring switches, push to make and push to break, toggle switch, slider etc. (no technical terms)* ✓ *Carry out simple experiments to understand the function of a switch. Create their own switch to fit a particular purpose.* ✓ *Use the symbols and/or pictures to explain and draw a circuit.* ✓ *Know how to interpret a circuit diagram (in pictures).*
6.7.1	Understand that some materials let sound pass through them while others reflect sound.	• Understand that some materials reflect sound. • Familiarise with several practical applications where the reflection of sound is used. ✓ *Carry out simple investigation to explore which materials absorb e.g. Insulation Box or reflect sound.*

		✓ *Understand what an echo is.* ✓ Explain that sound travels though air, wood, water http://resources.hwb.wales.gov.uk/VTC/16022007/sound_travels/lesson.html
6.8.1 6.8.2 6.8.3	Know that light travels in straight lines. Know that some materials let light to pass through them. Know the effect of a magnifying glass.	• Realise that light can pass through materials. • Be able to show that light travels in straight lines. • Know that such materials are called transparent. ✓ *Carry out simple experiments to investigate transparent and non-transparent materials.* ✓ *Pinhole experiment to show that light travels in straight lines.* • Know that lenses are used to produce magnified images of objects. ✓ *Carry out simple investigations to explore different types of lenses and observe how things look like.* *http://www.bbc.co.uk/schools/scienceclips/ages/10_11/see_things_fs.shtml* *http://www.bbc.co.uk/schools/scienceclips/teachersresources/ages10_11/tr_see_things_wk.shtml* ✓ *Mention different types of lenses including concave and convex lenses.*
Materials		
Strand	**Learning Outcome**	**Notes and additional guidelines**
6.9.1	Know that materials can change from one state to another.	• Know that a material can be either a solid, a liquid or a gas. • Know that solids can become liquids and liquids can become gases. • Know that a solid must be heated to become a liquid.

		• Know that a liquid has to be heated to become a gas. • Know that when a liquid is made to evaporate, it can be turned back into a liquid again. ✓ *Be familiar with everyday life examples of when solids, liquids and gases change state.* ✓ *Know how particles are in a solid, liquid and gas. https://3.bp.blogspot.com/-DUE3USscek8/Vt8OxQTPo2I/AAAAAAAAQUQ/uvxjHzeD0tw/s1600/matter2.PNG* ✓ *Carry out simple experiments to investigate under which conditions solids, liquids and gases change state.*
6.10.1	Know that some materials occur naturally and others do not.	• Classify materials into two broad categories: natural materials e.g. wood, stone, wool and man-made materials e.g. plastic, glass, nylon. • Classify products into two categories depending on the raw materials used for their production. Things made from natural materials e.g. wooden table, woollen jumper, and things made from non-natural materials e.g. plastic ruler, glass jar ✓ *Identify natural and man-made materials by observing the immediate environment,* ✓ *Relate to everyday examples and uses.*
6.11.1	Know that the moon is a satellite of Earth and that other planets have moons. 3 lessons – 1 galaxy , 1 sun & 1 moon (though 1 lesson about sun and 1 about moon might not be enough)	• Know that the moon is orbiting around the Earth. ✓ Identify the difference between the moon, planet and sun and how they are in orbit. • Know that the phases of the moon follow a regular pattern. • *Familiarise themselves with the eight phases of the moon including: new moon, waxing crescent, first quarter, waxing gibbous, full moon, waning gibbous, last quarter, waning*

6.11.2	Know that the sun is one of many stars in our galaxy.	*crescent.* *https://cdn.thinglink.me/api/image/819723488720846848/1240/10/scaletowidth* • Know that some other planets (not all) in our solar system have moons. ✓ *Planets which have moons include: Earth, Mars, Jupiter, Saturn, Uranus and Neptune. Dwarf planets may also have moon/s.* ✓ *Differentiate between natural (moons) and artificial (used for weather, communication and military purposes) satellites.* • Know that the sun is a star and that there are other stars in our galaxy. ✓ *Understand what a star is.* ✓ *Mention black holes.*