Primary Science Level 6 DRAFT – Year 6 Learning Outcomes	
Learning Outcome 1 ***What do Scientists do?*** Learning Outcome 1 *What do Scientists do?* will be integrated throughout the framework for Level 5 (Year 3 and Year 4).	
6.1.1	I can ask questions about a scientific topic being discussed in class.
6.1.2	I can find answers to simple questions on a scientific topic.
6.1.3	I can use limited scientific knowledge to predict the outcome of an experiment.
6.1.4	I can carry out a simple practical investigation, which involves up to two variables, with teacher guidance.
6.1.5	I can record observations by completing a table of results.
6.1.6	I can identify simple cause and effect relationships.
6.1.7	I can present information about work I did and link this to direct outcomes using some key scientific terms.
6.1.8	I can explain how a scientist uses a model to explain ideas.
6.1.9	I can give examples and explain how technology and science have improved life.
6.1.10	I can present information about some science occupations.
6.1.11	I can name, use and describe the purpose of a range of basic scientific apparatus.
6.1.12	I can take basic measurements of size, mass and temperature, and express the reading using appropriate units.
6.1.13	I can apply basic safety rules when working on an investigation.
6.1.14	I can take some decisions while working on an experiment in a group.

Learning Outcome 2 *How do we stay alive?*			
	LEARNING OUTCOMES *Children will be able to:*	**KEY VOCABULARY**	**LEARNING OPPORTUNITIES** *Children should be encouraged to:*
	PLANTS		
6.2.1	I can explain that plants need carbon dioxide and water to make food, and that they produce oxygen. (http://www.kids-fun-science.com/plant-experiments.html) https://sciencing.com/simple-photosynthesis-activities-8281106.html	**photosynthesis, light, carbon dioxide, water, nutrients, oxygen**	• Investigate/observe photosynthesis using simple everyday resources and multimedia resources.
6.2.2	I can investigate and give examples of the adaptations of plants to suit their environment.	**habitat, adaptation, cacti/succulents, ferns, leaves.**	• Observe different plants (potentially during a fieldwork activity) and note features which help plants adapt to their environment.
	BODY SYSTEMS		
6.2.3	I can describe, in simple terms, the main role of important human body systems such as digestive, circulatory, respiratory, and nervous system.	**digestive system, teeth, saliva, stomach, small/large intestine, fibre; circulatory**	• Research and investigate the function of different body organs.

		system, heart, blood, oxygen; respiratory system, lungs, oxygen, carbon dioxide, inhale, exhale; nervous system, nerves, electricity, brain, spinal cord, organs.	• Refer to a body apron to identify and describe, in simple terms, the main role of such body organs.
Learning Outcome 3 ***How do we keep fit and healthy?***			
	LEARNING OUTCOMES *Children will be able to:*	**KEY VOCABULARY**	**LEARNING OPPORTUNITIES** *Children should be encouraged to:*
6.3.1	I can list the five main nutrients (proteins, carbohydrates, fats, minerals and vitamins) the human body needs, and explain their role and the importance of fibre in a healthy diet.	**proteins, carbohydrates, fats, vitamins and minerals, fibre, intestines, water, nutrients.**	• Research the role of nutrients in a healthy and balanced diet.
6.3.2	I can interpret food labels and relate to identifying foods that should not be	**energy, fat, saturated fat, carbohydrates, sugar, fibre, protein,**	• Analyse food labels of various types of food and group them accordingly.

6.3.3	consumed in excess, including amount of sugar, saturated fats, salt, additives. I can apply my understanding of a balanced diet to suggest improvements to what I eat.	**salt, additives, preservatives. food plate, food diary, nutrition.**	• Evaluate whether the food item should be consumed on a regular basis or not. • Make an informed decision about food consumed. • Keep a food diary. • Suggest ways of improving their eating habits.
Learning Outcome 4 ***How do our senses help us gather information?***			
	LEARNING OUTCOMES *Children will be able to:*	**KEY VOCABULARY**	**LEARNING OPPORTUNITIES** *Children should be encouraged to:*
6.4.1 6.4.2	<u>SOUND</u> I can describe, in simple terms, how the ear detects sound. I can use or create musical instruments to explore different ways of changing the pitch of sound (a high or low sound).	**ear canal, ear drum, vibration. wind/percussion/string instruments, high pitch, low pitch.**	• Use or create musical instruments using everyday resources to investigate sound. • Explore and analyse how different musical instruments (real or created) produce high and low pitch sounds. • Use multimedia resources to investigate sound pitch.

	LIGHT		
6.4.3	I can understand that smooth and shiny surfaces reflect light better.	**reflection, surface, curved, flat, images, reversed image, multiple images, periscope.**	• Investigate reflection using mirrors and everyday resources. • Use everyday resources to investigate and make a periscope.
6.4.4	I can investigate how different reflective surfaces (flat or curved) reflect light.		
6.4.5	I can investigate how mirrors may be used to create reversed images, multiple images and to see behind things.		
6.4.6	I can build a periscope.		
Learning Outcome 5 ***What is energy?***			
	LEARNING OUTCOMES *Children will be able to:*	**KEY VOCABULARY**	**LEARNING OPPORTUNITIES** *Children should be encouraged to:*
	ENERGY SOURCES	**fossil fuels, gas, petrol, diesel, solar energy, wind energy, water energy, generate, renewable, non-**	• Research different types of energy and find out about renewable and non-renewable sources of energy. • Identify pros and cons of such energy resources.
6.5.1	I can identify different types of renewable (solar energy, wind energy, water energy) and non-renewable sources (fossil fuels) to produce energy.		

6.5.2	I can describe how Malta generates its energy so far. ELECTRICTY	**renewable, clean energy; circuit, switch.**	• Use multimedia resources and conduct research to describe how Malta generates its energy so far.
6.5.3 **6.5.4**	I can demonstrate the role of a switch in a circuit. I can recognise and use common circuit symbols.		• Investigate electrical circuits and the role of a switch in a circuit, using simple everyday resources. • Use of multimedia resources to investigate switches. • Design and make their own switch using simple everyday resources.
Learning Outcome 6 ***What are things made of?***			
	LEARNING OUTCOMES *Children will be able to:*	**KEY VOCABULARY**	**LEARNING OPPORTUNITIES** *Children should be encouraged to:*
6.6.1	STATE OF MATTER I can investigate and compare the properties of different states of matter (solids, liquids and gases).	**solid, liquid, gas, state of matter**	• Investigate processes/changes in state of matter using simple everyday resources

6.6.2	I can observe and describe examples of freezing, condensation, evaporation, melting and boiling.	**freezing, condensation, evaporation, melting, boiling.**	e.g. melting, freezing, boiling, evaporation, condensation. • Give everyday examples of solids, liquids and gases and how these change state. • Find out about scientists such as Frank Epperson who invented Popsicles. • Use of multimedia resources to observe and explore change in state.
6.6.3	<u>CHEMICAL CHANGES</u> I can make some mixtures react to form new materials.	**chemical reaction, chemical change, mixture.**	• Explore chemical changes through simple activities such as baking and use of everyday resources such as mixing vinegar to bicarbonate of soda.
Learning Outcome 7 ***How does planet Earth support life?***			
	LEARNING OUTCOMES *Children will be able to:*	**KEY VOCABULARY**	**LEARNING OPPORTUNITIES** *Children should be encouraged to:*
6.7.1	I can explain that the environment is an ecosystem that can be harmed through pollution, destruction of the natural	**environment, ecosystem, land, sea, air, light, pollution,**	• Research about the environment as an ecosystem and find out about threats to

6.7.2	environment, acid rain, overfishing and overpopulation. I can observe and describe how the sea is becoming polluted and its effect on marine life.	**habitats, micro-plastics, acid rain, overfishing, overpopulation, sustainability.**	the environment through use of multimedia resources. • Explore practical and personal ways of conserving the environment. • Discuss and debate how human activity has had an impact on the environment.
Learning Outcome 8 ***How do things move?***			
	LEARNING OUTCOMES *Children will be able to:*	**KEY VOCABULARY**	**LEARNING OPPORTUNITIES** *Children should be encouraged to:*
6.8.1 6.8.2 6.8.3 6.8.4	I can investigate, through simple experimentation, the effect of gravity, as a force which pulls things to the Earth. I can show that air resistance exerts an upward push such that it can slow down a falling object. I can demonstrate the effect of air resistance on differently shaped objects. I can apply principles of gravity and air resistance to everyday life.	**gravity, force, air resistance, mass, kilograms, push, pull, surface area, opposing force, streamline.**	• Differentiate, in simple terms, between mass and weight. Mass is the amount of matter that makes up an object (how much stuff is inside the object) and is measured in kilograms. Weight is the force acting on the object and is measured in Newtons. The weight of an object varies in relation to the force of gravity e.g. an object would weigh less on the Moon than on Earth because the

6.8.5	I can research about scientists who have worked on gravitational theories e.g. Galileo Galilei, Isaac Newton.		Moon has a much weaker force of gravity than the Earth. • Investigate gravity and air resistance using simple everyday examples for comparison e.g. dropping a scrunched piece of paper and a flat piece of paper and noting which object touches the ground first. • Investigate concepts of gravity and air resistance through paper spinners. • Use multimedia resources to investigate gravity and air resistance. • Research simplified information about scientists such as Galileo Galilei and Isaac Newton and find out about their work on gravitational theories. • Observe and relate to gravity and air resistance through everyday examples such as a parachutist falling, streamlining in various objects and in nature, sailing etc.

Learning Outcome 9 *What is there out in Space?*			
	LEARNING OUTCOMES *Children will be able to:*	**KEY VOCABULARY**	**LEARNING OPPORTUNITIES** *Children should be encouraged to:*
	<u>THE MOON</u>		
6.9.1	I can describe the basic phases of the moon including new moon, first quarter, full moon, last quarter.	**phases of the moon, new moon, full moon, first quarter, last quarter, satellite;**	• Use simple everyday resources to investigate and/or demonstrate the different phases of the moon. • Use multimedia resources to find out about the different phases of the moon.
	<u>STARS AND GALAXY</u>		• Use of multimedia resources to research the sun, the galaxy and the Milkyway galaxy.
6.9.2	I can explain that the sun is one of many stars in our galaxy.	**sun, star, galaxy, Milky way, solar system, space, scientists.**	
6.9.3	I can research about the Milkyway galaxy.		• Research simplified information about scientists who made discoveries related to outer space.
6.9.4	I can find out about scientists who made discoveries related to outer space e.g. Hans Lippershey (optical telescope), Caroline Herschel (discovered first comet) etc.		