Primary Science Level 5 Year 4 Learning Outcomes	
Learning Outcome code reference: *Example: 4.1.2 means Year 4 – Learning Outcome 1 – Sub-section 2.*	
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).	
4.1.1	I can ask questions that can be investigated scientifically.
4.1.2	I can find out about a simple scientific idea.
4.1.3	I can make a prediction about a situation from a limited number of options.
4.1.4	I can carry out a simple practical investigation with the teacher's support, ensuring it is a fair test.
4.1.5	I can record observations in a simple format.
4.1.6	I can make simple conclusions from my direct observations.
4.1.7	I can apply knowledge to practical situations.
4.1.8	I can describe what I did and what happened by talking about it or by drawing a diagram.
4.1.9	I can identify some science occupations.
4.1.10	I can name and use some items of basic scientific equipment.
4.1.11	I can use simple measuring devices.
4.1.12	I can follow written or verbal instructions related to keeping safe.
4.1.13	I can work on an experiment in a group under adult supervision.

Learning Outcome 2 *How do we stay alive?*			
	LEARNING OUTCOMES *Children will be able to:*	**KEY VOCABULARY**	**LEARNING OPPORTUNITIES** *Children should be encouraged to:*
	PLANT LIFE		
4.2.1	I can classify plants as living things and can describe some of the things that plants do related to their vital functions, namely roots absorb water, stem holds plant up, leaves make food for the plant, petals attract insects.	**leaves** **petals** **attract insects** **stem for support** **roots absorb water** **edible** **nutrients** **air** **water** **sunlight**	• Plant seeds in class and observe growth (flowering or non-flowering). • Observe and record plant growth.
4.2.2	I can understand that plants that are important to human beings for various purposes, namely plants give us good air, they provide shade, they are habitats for other living things, some plants are edible.		
4.2.3	I can care for a growing plant, ensuring it gets all the elements needed for growth, namely water, air and light.		

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:*
	FOOD AND HYGIENE		• Explore different food types using different food, pictures of food, multimedia, carrying out research etc. • Design and make a food plate e.g. for a school snack, for a children's party etc. • Practise proper hygiene when handling food, namely washing hands well before handling food; washing fruits and vegetables thoroughly; using different utensils for different food types e.g. raw meat and vegetables, refrigerating certain food to keep fresh.
4.3.1	I can design my own food plate made up of a balance of different food types, namely bread and cereals; fruit and vegetables; meat and beans; eggs and cheese; oils and nuts.	**balanced diet** **nutrients** **vitamins** **energy**	
4.3.2	I can demonstrate basic proper hygiene while cooking and keeping food safe.	**hygiene** **germs** **food safety**	

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:*
	OUR SENSES	**hear** **feel** **taste** **smell** **see/sight**	• Explore the senses using a variety of objects, multimedia resources and authentic experiences.
4.4.1	I can give examples of how we use our five senses to gather information about the world around us.		
	SOUND	**pluck** **blow** **shake** **hit** **scrape**	• Create instruments that produce sound by plucking, blowing, shaking, hitting or scraping.
4.4.2	I can demonstrate how sounds are made.		
4.4.3	I can make different sounds using everyday objects and musical instruments.		
	LIGHT	**day / night** **earth** **sun** **shadow / blocks light** **light source**	• Explore day / night patterns using visual aids and hands on experiments and relate these to everyday life. • Investigate shadow shape and size by creating, for example, a shadow puppet theatre.
4.4.4	I can discuss the importance of light in everyday life, and what happens when there is no light (including day/night patterns).		
4.4.5	I can relate to past and present inventions of artificial light e.g. fire, candle, oil lamps, gaslight, electric light.		

4.4.6	I can explain how shadows are formed and investigate the factors (distance of light source from object) that affect shadow shape and size.		
Learning Outcome 5 ***What is energy?***			
	LEARNING OUTCOMES *Children will be able to:*	**KEY VOCABULARY**	**LEARNING OPPORTUNITIES** *Children should be encouraged to:*
	FOOD CHAINS		
4.5.1	I can explain that the sun is the primary source of energy.	**producer** **consumer**	• Use resources such as plastic toy animals, flash cards of animals and multimedia resources to explore and understand different food chains.
4.5.2	I can explain how energy is transferred from plants or animals to other animals in a food chain.	**predator** **prey** **energy**	
4.5.3	I can draw and label a simple food chain.		
	ELECTRICITY		• Investigate different materials and everyday objects to understand which materials are conductors of electricity and which materials are insulators.
4.5.4	I can investigate which materials are conductors of electricity and which are insulators.	**conductors** **insulators** **material** **electricity flows**	

Learning Outcome 6 *What are things made of?*			
	LEARNING OUTCOMES *Children will be able to:*	**KEY VOCABULARY**	**LEARNING OPPORTUNITIES** *Children should be encouraged to:*
	PHYSICAL AND CHEMICAL MIXTURES		• Use everyday objects and materials and multimedia to investigate physical and chemical mixtures. • Investigate different mixtures that can be physically separated, for example soil mixture or salad mix. • Observe different chemical reactions, for example rusting, cleaning coins, burning, decomposition, reactions between substances e.g. bicarbonate of soda and vinegar. • Distinguish between reversible and irreversible changes using everyday objects, materials and ingredients.
4.6.1	I can demonstrate how different materials can be mixed together to form mixtures.	**reaction** **mixture** **solution** **soluble** **insoluble** **chemical change** **physical change** **reversible change** **irreversible change**	
4.6.2	I can observe chemical reactions and record the results.		
4.6.3	I can understand that some changes are reversible and other changes are irreversible.		

4.6.4	**MATERIALS** I can classify materials as natural or man-made.	**natural** **man-made (synthetic) materials**	• Use pictures, everyday materials and multimedia resources to classify natural (e.g. wood, stone, gold, wool, clay, cotton, silk, oil, rubber) and man-made materials (e.g. plastic, cardboard, brick, glass, nylon)
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:*
4.7.1 **4.7.2**	**THE WEATHER** I can observe and record changes in the weather. I can interpret basic weather charts and the symbols used.	**thermometer** **wind vane** **anemometer** **rain gauge** **UV index**	• Use weather instruments and weather data to observe and record changes in the weather. • Carry out simple investigations related to changes in the weather, for example observing and recording wind direction, air temperature etc.

	HABITATS		
4.7.3	I can identify some common plants in my local environment, namely the Carob tree (Ħarruba), Aleppo Pine (siġra taż-Żnuber), Thyme (Sagħtar), Crown Daisy (Lellux), Cape Sorrel (Qarsu), Fennel (Bużbież), Borage (Fidloqqom), Common and Greater Snapdragon (Papoċċi Ħamra).	**edible** **herbs** **leaf shape/texture** **flowering** **local environment**	• Observe common plants in the local environment and explore their benefits through a fieldwork activity.
4.7.4	I can identify and classify a range of plants in my local area through a fieldwork activity.		
Learning Outcome 8 ***How do things move?***			
	LEARNING OUTCOMES *Children will be able to:*	**KEY VOCABULARY**	**LEARNING OPPORTUNITIES** *Children should be encouraged to:*
	FORCES		
4.8.1	I can explain what force is and give examples of different types of forces.	**friction** **surface** **rough** **smooth** **slows down** **heat**	• Explore different types of forces, namely push, pull, twist. • Investigate friction over different surfaces e.g. carpet, wood, plastic, tiles etc. • Explore everyday life situations when friction is useful and when it is not.
4.8.2	I can demonstrate that friction is a force that opposes the movement of one surface over another.		
4.8.3	I can demonstrate a situation in which friction produces heat.		

4.8.4	I can give examples of when friction is useful and when it is not.		
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:*
	SPACE		
4.9.1	I can name the planets of our solar system.	**Mercury** **Venus** **Earth** **Mars** **Jupiter** **Saturn** **Uranus** **Neptune** **planets** **asteroids** **dwarf planets** **solar system** **Moon** **rocky planets** **gas giants**	• Research about scientists who made discoveries related to space. • Describe simple orbits around the sun and compare planet orbits as more/less than that of Earth.
4.9.2	I can research characteristics of each planet, namely the order of the planets from the sun; whether they are made of rock or gas; whether they support life or not; relative size to Earth; presence of rings.		
4.9.3	I can describe the movement of the planets around the sun.		
4.9.4	I can find out about scientists who made discoveries related to Space e.g. Nicolaus Copernicus (model of the solar system).		

		rings orbit star Sun	