Admiralty Primary School
Primary 6 Science

Term 1 – **Theme: Energy**

- Energy Conversion

Essential Takeaways	Key Inquiry Questions
• Energy is required to enable things to work or move. • There are different forms of energy and they can be converted from one form to another. • Some sources of energy can be depleted and Man plays an important role in energy conservation.	• What are the different forms of energy around us? • How is energy used in everyday life? • Why is it important to conserve energy?

Core Ideas	Practices	Values, Ethics and Attitudes
• Recognise that energy from most of our energy resources is derived in some ways from the Sun. • Recognise and give examples of the various forms of energy. - kinetic energy - potential energy - light energy - electrical energy - sound energy - heat energy	• Investigate energy conversion from one form to another and communicate findings.	• Show concern for the need to conserve energy usage in our everyday life.

Term 1 to 3 – **Theme: Interactions**

- Forces
- Interactions Within the Environment (Living Together, Food Chains & Food Web, Adaptations, Man's Impact on the Environment)

Essential Takeaways	Key Inquiry Questions
• There are interactions among Man, living and non-living things in the environment. • Man can interact with the environment and make positive or negative impacts. • Man plays an important role in conservation to ensure continuity of life and availability of resources.	• How does Man better understand the environment? • What are the consequences of Man's interactions with the environment?

Core Ideas	Practices	Values, Ethics and Attitudes
Forces		
• Identify a force as a push or a pull. • Show an understanding of the effects of a force. - A force can move a stationary object - A force can speed up, slow down or change the direction of motion - A force can stop a moving object - A force may change the shape of an object • Recognise and give examples of the different types of forces. - magnetic force - gravitational force - elastic spring force - frictional force • Recognise that objects have weight because of the gravitational force acting on the object.	• Investigate the effect of friction on the motion of objects. • Investigate the effects of elastic spring force.	• Show objectivity by using data and information to validate observations and explanations about forces.

Interactions Within the Environment		
• Identify the factors that affect the survival of an organism. - physical characteristics of the environment (temperature, light, water) - availability of food - types of other organisms present (producers, consumers, decomposers) • Show an understanding of the effect on organisms when the environment becomes unfavourable (organisms adapt and survive; move to other places or die). • Show an understanding of the energy pathway from the Sun through living things and identify the roles of various organisms (producers, consumers, predators, prey) in a food chain and a food web. • Differentiate among organism, population and community. - An organism is a living thing. - A population is a group of organisms of the same kind, living and reproducing at a given place and time. - A community consists of many populations living together in a particular place.	• Observe, collect and record information regarding the interacting factors within an environment.	• Show concern by being respectful and responsible towards the environment and the organisms living in it. • Show concern for Man"s impact on the environment. • Value individual effort and team work.

• Show an understanding that different habitats support different communities (garden, field, pond, seashore, tree, mangrove swamp). • Recognise that adaptations serve to enhance survival and can be structural or behavioural. - cope with physical factors - obtain food - escape predators - reproduce by finding and attracting mates or dispersing seeds/fruits • Give examples of man's impact, (both positive and negative) on the environment.		