

**St. Mary's Catholic High School-Dubai.**  
**Year 4 - Science Portion for the GL exam – MAY, 2021**

**UNIT 1 -VARIATION & CLASSIFICATION**

- Classification keys
- Classify living things into broad groups according to common features.
- Classify specific species of plant. eg. types of buttercup plants.
- Classify a specific species of animal. eg.- types of butterflies / earthworms.
- Create/Use a dichotomous key.

**UNIT 2 –GROWING PLANTS**

- Parts of flowering plants & their functions.
- Group plants according to observable features.
- Water transport in plants. .
- Requirements of plants (light, water, air, space & nutrients)
- Wilting/ rehydration and effect of overwatering in plants.
- Use of fertilizers/ organic matter to provide minerals to help plants grow well.

**UNIT 3 – DANGERS TO LIVING THINGS**

- Living things and their habitats.
- Positive and negative changes in environments
- Ways to protect the environment locally and globally.
- Define Conservation/ Cite examples of ways in which humans can reduce the effects of environmental change
- Distinguish between the terms 'endangered' and 'extinct'.
- Construct and interpret food chains, identifying producers, predators and prey.

**UNIT 4 – HUMAN NUTRITION**

- Food groups and their benefits.
- The Digestion process.
- Parts of the digestive system and their functions.
- Types of teeth and their functions.

**UNIT 5 – CHANGES OF STATE**

- Compare /Group materials as solids, liquids, gases.
- Properties of solids, liquids and gases.
- Changing states of matter by heating and cooling.
- Measuring temperature.
- Evaporation and Condensation in the water cycle.

**UNIT 6 – SOUND**

- Source of a sound and how sound travels through different mediums.
- Sound vibrations
- How sound is transmitted from the outer ear to the brain.
- Materials that muffle sound. .
- Volume /Frequency/Pitch of sounds.

- High- and low-pitched sounds and how the pitch of a sound can be changed.
- Measuring Volume of sound with a sound meter (data logger) and the unit used (decibel- dB)
- Patterns between the pitch of a sound and features of the object that produced it.
- Patterns between the volume of a sound and the strength of the vibrations .

### **UNIT 7 – ELECTRICITY**

- Common appliances that use electricity and those that use batteries.
- Uses of Electricity.
- Construct a simple series circuit.
- Identifying basic parts, including cells, wires, bulbs, switches and buzzers.
- Power source of Electricity in a circuit.
- Complete and Incomplete circuits.
- Electrical 'conductors' and 'insulators'

### **Scientific Enquiry**

- Read and interpret data to answer questions related to scientific enquiries.
- Investigating / Obtaining and Presenting evidence & Conclusions
- Recording findings using simple scientific language, drawings, labelled diagrams, bar charts, and tables.

### **Other Relevant Topics (From Year 3 & Year 5)**

- Skeleton & Muscles (Year 3)
- Magnets (Year 3)
- Rocks & soils (Year 3)
- Light & Shadows (Year 3)
- Forces (Year 3)

**Questions on Scientific Enquiry and Investigations will be asked from the above topics.**

**Revise from: Topic Book, Work Book, PPT & video links, Active learn resources and Google Form Practice Papers.**

**Revision material will be uploaded for all topics on GC**