



مدرسة القديسة مريم الكاثوليكية الثانوية - دبي

ST. MARY'S CATHOLIC HIGH SCHOOL, DUBAI

YEAR 4 – SCIENCE

PORTION FOR THE GL EXAM – MAY, 2022

UNIT 1 - VARIATION & CLASSIFICATION

- Group and classify living things in a variety of ways.
- Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including plants and animals.
- Explore the idea that scientists are still discovering new species.
- Create simple dichotomous keys to identify a variety of plants & animals.
- Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.
- Compare living things from different habitats and suggest explanations for any differences.

UNIT 2– DANGERS TO LIVING THINGS

- Changes in environments that can sometimes pose dangers to living things.
- How environments can be changed in positive ways, for example, the creation of nature reserves, and in negative ways, for example, deforestation.
- Construct and interpret a variety of food chains, identifying producers, predators and prey.
- Link between sources of food and animal populations in an environment.
- Recognise ways in which living things and the environment need protection, both locally and globally.
- What is meant by the term – Conservation/ Cite examples of ways in which humans can reduce the effects of environmental change.
- Distinguish between the terms 'endangered' and 'extinct'.

UNIT 3 – CHANGES OF STATE

- Compare and group materials together, according to whether they are solids, liquids or gases.
- Properties of solids, liquids and gases.
- Solids consisting of very small particles those behave as liquids in some ways.
- Investigate the properties of sand in a variety of containers and through compression.
- Changes in the state of materials when they are heated or cooled.
- Measure the temperature at which this happens in degrees Celsius (°C)
- Three states of Water & how it changes from one state to another state at different temperatures.
- Different substances that change state at different temperatures.
- The process of evaporation and condensation in the water cycle; Associate the rate of evaporation with temperature.

UNIT 4 – HUMAN NUTRITION

- Main benefits of each food group, with examples.
- Sequence the process of digestion in humans as ingestion, swallowing, digestion, absorption and egestion.
- Simple functions of the basic parts of the digestive system involved in the sequence of digestion.
- Different types of teeth in humans and their simple functions.
- Comparing animal teeth - Herbivores, Carnivores & Omnivores.

UNIT 5 – ELECTRICITY

- Common appliances that use electricity & Uses of Electricity.
- Devices that use batteries that supply electricity.
- Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.(Simple Circuit diagrams)
- Source of Electricity in a circuit / Understand that a circuit needs a power source to work.
- Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery.
- Explain how some materials conduct electricity better than others (using the terms electrical ‘conductor’ and ‘insulator’)
- Name some common conductors and insulators, and associate metals with being good conductors.

UNIT 6 – SOUND

- Source of a sound and how sound can travel through solids, liquids and gases.
- How vibrations from sounds travel through a medium to the ear.
- Explain how sound is transmitted from the outer ear to the brain.
- Examples of some materials that are effective in preventing vibrations from sound sources reaching the ear.
- Volume /Frequency/Pitch
- Measuring Volume of sound with a sound meter (data logger) and the unit used (decibel- dB)
- Find patterns between the pitch of a sound and features of the object that produced it.
- Find patterns between the volume of a sound and the strength of the vibrations that produced it.
- Identify and describe features of an object that can be changed to alter its pitch, for eg, length of tube, length of string and tension of string.
- Explain how sounds get fainter as the distance from the sound source increases.

Other Topics done in previous years

- Parts of a plant & What plants need (Year 3)
- Skeleton & Muscles (Year 3)
- Magnets (Year 3)
- Rocks & soils (Year 3)
- Light & Shadows (Year 3)

Scientific Inquiry Skills

- Read and interpret data to answer questions related to scientific inquiries.
- Investigating / Obtaining and Presenting evidence (observation) & Conclusions
- Identifying the different variables in an investigation.
- Recording findings using simple scientific language, drawings, labeled diagrams, bar charts, and tables.

- ❖ **Questions on Scientific Enquiry and Investigations will be asked from the above topics.**
- ❖ **Revise from the Notes, Topic Book, Work Book; PPT's with video links, Active learn Resources and Revision materials.**
- ❖ **Topic-wise revision - Google Forms and Worksheets will be posted on GC after the Spring Break.**
- ❖ **Explore the following recommended websites:**

<https://wordwall.net/en-gb/community/science>

<https://quizizz.com>