



SCIENCE

YEAR 7 Core Curriculum Programme (CCP)

LEARNING AND ASSESSMENT PROGRAMME

GOVERNMENT OF MALTA
MINISTRY FOR EDUCATION, SPORT, YOUTH, RESEARCH AND INNOVATION
DIRECTORATE FOR STEM AND VET PROGRAMMES

Year 7

CCP Unit 7.1

Doing Science

This unit illustrates the application of science and technology in everyday life. It introduces students to basic laboratory equipment, safety procedures, and hazard symbols. Learners become familiar with emergency contact number and understand the principles of fair testing in experiments. The unit also covers the parts of a Bunsen burner and explains fire safety using the fire triangle.

LEARNING OUTCOMES

Science Around Us

1. I can give simple examples of how science and technology are used in everyday life.
2. I can give simple examples of how science helps us to stay healthy, safe, or comfortable.

Safe and Fair Experiments

3. I can identify and use simple equipment and measuring instruments.
4. I can follow basic safety rules in the science lab and recognise hazard symbols.
5. I can identify 112 as the emergency telephone number.
6. I can follow instructions and use apparatus to perform a simple experiment
7. I can understand the importance of a fair test and apply it to experiments.

Using Fire Safely

8. I can label and identify the main parts of the Bunsen Burner.
9. I can use the Bunsen burner safely in experiments
10. I can use the fire triangle to describe how to start or stop a fire.

KEY WORDS

science, technology, everyday life, appliance, electricity, medicine, equipment, measure, thermometer, beaker, measuring cylinder, ruler, stopwatch, balance

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safety rules, lab coat, goggles, gloves, hazard, hazard symbol, warning sign, emergency, 112, fair test, variable, control, repeat, reliable, prediction

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Bunsen burner, base, barrel, air hole, collar, gas inlet, safety flame, heating flame, fire triangle, heat, fuel, oxygen, fire safety, extinguish

*Where appropriate, educators may also supplement instruction with additional learning outcomes from '**Unit 7.1 Doing Science**' in the mainstream syllabus.*

Year 7

CCP Unit 7.2

Exploring Nature

This unit introduces students to the characteristics of living things and how to classify them. It explores the differences between vertebrates and invertebrates, plant parts and their functions, and how living things are suited to their habitats. Students learn about food chains, feeding relationships, and the impact of human activity, supported by hands-on exploration through fieldwork activities.

LEARNING OUTCOMES

Grouping Living Things

1. I can use the seven vital functions to identify living and non-living things.
2. I can sort living things according to their characteristics.
3. I can differentiate between vertebrates and invertebrates and give some examples of each.
4. I can identify and describe the five vertebrate groups.

Habitats and Adaptations

5. I can link some characteristics of plants and animals to their habitats.
6. I can name parts of a plant, including the stem, leaves and roots.
7. I can match the stem, leaves and roots to their basic functions.

Ecology

8. I can identify different feeding relationships such as herbivores, carnivores and omnivores.
9. I can interpret food chains.
10. I can give examples of how human behaviour can help or harm the environment.
11. I can explore and observe a habitat and some living organisms through a Fieldwork activity.

KEY WORDS

living, non-living, seven life processes, movement, respiration, sensitivity, growth, reproduction, excretion, nutrition, classify, characteristics, vertebrate, invertebrate, fish, amphibian, reptile, bird, mammal, insect, spider, worm

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habitat, environment, shelter, survival, adaptation, roots, stem, leaf, function, support, photosynthesis, anchorage, absorption, water, sunlight, nutrients, air, soil

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herbivore, carnivore, omnivore, predator, prey, food chain, energy, consumer, producer, environment, pollution, litter, protect, recycle, care, harm, fieldwork, observe, explore

*Where appropriate, educators may also supplement instruction with additional learning outcomes from '**Unit 7.2 Our Natural Environment**' and **'Unit 7.3 Investigating Local Habitats**' in the mainstream syllabus.*

Year 7

CCP Unit 7.3

Chemical Matters

This unit covers the properties of solids, liquids, and gases, changes of state, and their everyday applications. It also addresses the safe handling of chemicals, the use of indicators to test acids, alkalis, and neutral substances, and the process of neutralisation. Students will also learn how to test for hydrogen gas produced in reactions between acids and certain metals.

LEARNING OUTCOMES

States of Matter

1. I can group things as solids, liquids, or gases and give examples of each.
2. I can identify some properties of solids, liquids and gases.
3. I can link some properties of solids, liquids and gases to examples of their everyday use.
4. I can show that water can be found in different forms.
5. I can identify changes of state like melting, freezing, evaporation, boiling and condensation.

Acids, Alkalis and Indicators

6. I can handle chemicals safely.
7. I can name some common acids and alkalis we use at home or in the lab.
8. I can identify some properties of acids and alkalis.
9. I can use litmus or universal indicator to identify acids, alkalis or neutral solutions.

Chemical Changes

10. I can recall an everyday example of a neutralisation reaction.
11. I can use an indicator to follow the reaction between an acid and an alkali.
12. I can use the chemical test to identify hydrogen as the gas produced between the reaction of some acids with some metals.

KEY WORDS

solid, liquid, gas, state, particle, property, shape, volume, water, ice, steam, melting, freezing, evaporation, condensation, temperature, heat, change of state.

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chemical, acid, alkali, neutral, vinegar, lemon juice, soap, bicarbonate, hydrochloric acid, sodium hydroxide, lab, litmus, universal indicator, red, blue, green, pH, pH scale, safety, gloves, goggles

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neutralisation, reaction, mix, indicator, colour change, hydrogen, gas, fizz, pop test, metal, acid, test tube, chemical change, observe, evidence

*Where appropriate, educators may also supplement instruction with additional learning outcomes from '**Unit 7.4 Understanding Matter**' and '**Unit 7.5 Acids and Alkalis**' in the mainstream syllabus.*

Earth and Space

This unit introduces students to key ideas about Earth and space. Learners explore how the Earth's movements cause day, night, and the seasons, and how the Moon changes appearance as it orbits Earth. They learn about the Sun, planets, stars, and gravity, and begin to understand the importance of space exploration in our daily lives.

LEARNING OUTCOMES

Earth, the Sun, and the Moon

1. I can say that the Sun is a star and gives us natural light.
2. I can describe the orbit of the Earth around the Sun.
3. I can describe day and night in terms of the spinning of the Earth on its axis.
4. I can recall that the Earth takes 24 hours to spin once (one day) and 365 days to go around the Sun (one year).
5. I can say that the Moon orbits the Earth and that we see it in different phases.
6. I can recall that the four seasons occur due to the tilt of the Earth.

Solar System and Beyond

7. I can describe the Solar System as made up of the Sun and the planets orbiting it.
8. I can name the planets of the Solar System.
9. I can identify stars as distant light sources.
10. I can say that gravity is the force that keeps things in orbit.

Space Exploration

11. I can appreciate how space exploration can be useful in everyday life.

KEY WORDS

sun, star, light, Earth, orbit, axis, spin, rotation, day, night, year, 24 hours, 365 days, Moon, phases, full moon, tilt, seasons, summer, winter, spring, autumn

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solar system, planets, Mercury, Venus, Mars, Jupiter, Saturn, Uranus, Neptune

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gravity, force, weightlessness, satellite, astronaut, rocket, space station, GPS, weather, communication, telescope, exploration

*Where appropriate, educators may also supplement instruction with additional learning outcomes from '**Unit 7.6 Earth and Space**' in the mainstream syllabus.*

Year 7

CCP Unit 7.5

Cells and Reproduction

This unit introduces students to cells as the basic building blocks of life. Learners explore plant and animal cells using microscopes, identify major body organs, and appreciate how living things grow and reproduce. The unit delves into plant and human reproduction, and covers changes during puberty, fertilisation, pregnancy. It also highlights the importance of a healthy lifestyle during pregnancy.

LEARNING OUTCOMES

Observing Cells

1. I can use a magnifying glass and a light microscope to look at small things.
2. I can say that all living things are made of cells.
3. I can identify a typical animal and plant cell as seen under the light microscope.

Organs and Reproduction

4. I can describe the role of the flower in plant reproduction.
5. I can name some human organs.
6. I can identify the correct position of the main organs on the human torso.
7. I can identify the male and female reproductive organs and label some parts.

Growth and Development

8. I can identify some body changes taking place in boys and girls during puberty.
9. I can identify the male and female sex cells.
10. I can describe that fertilisation is the fusion of the male and female sex cells.
11. I can describe that the fertilised egg grows into a baby during nine months of pregnancy and at the end of which the baby is born.
12. I can name examples of good and bad practices during pregnancy.

KEY WORDS

magnifying glass, light microscope, cells, animal cell, plant cell

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flower, reproduction, pollen, ovary, petal, organs, brain, heart, lungs, stomach, intestines, torso, male reproductive system, female reproductive system, penis, vagina, testicles, ovaries

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puberty, body changes, menstrual cycle, period, sperm, egg, fertilisation, embryo, foetus, uterus, pregnancy, birth, healthy habits

*Where appropriate, educators may also supplement instruction with additional learning outcomes from '**Unit 7.7 Cells and Reproduction**' in the mainstream syllabus.*