# Science

Syllabus: Grade 5

## Description:

By grade five, students are ready to think more abstractly about the world around them. They develop models of matter that is too small to see, they begin to think about these tiny pieces as building blocks of living things. They recall and categorize their knowledge from previous grades about processes that shape Earth into categories so that they can think about Earth as a system and they contemplate stars and galaxies that are inconceivably far away.

#### Science Standards:

Standard 1: Science Practices

Standard 2: Life Science

Standard 3: Earth and Space Science

Standard 4: Physical Science

## Science Objectives:

Fifth grade science learning objectives encourages an attitude of inquiry in the world around us, excited an interest in the nature and process of science and explore the relationship of science to society, technology, mathematics and other disciplines. Through the science curriculum, students gain a foundation of process skills, leading to organized reasoning, analytical thinking and problem-solving abilities.

#### Science Resources & Materials:

Teacher's Resources: Harcourt Science (T. Ed) Student's Resources: Harcourt Science (St. Text)

Digital Resources

#### Class Rules:

- 1. Arrive on time, prepared, and ready to learn
- 2 Respect yourself and others
- 3. Make friends and be thoughtful
- 4. Take turns speaking and listening
- 5. Say Please and Thank you
- 6. Try your best!

## **Computation of Letter Grade:**

90%-100%	4
80%-89%	В
70%-79%	C
65%-69%	D
0%-64%	F

### Effort and Behavior & Activity

- 1 Outstanding
- 2 Satisfactory
- 3 Needs Improvement
- 4- Unsatisfactory

#### Methods of Evaluation

## Quarterly grade for Grade 1 to 8 is based on:

- A. 85% = Class Average
  - \* Class Average = 70% Test + 30% Other Components such as quizzes, group works, classwork, homework, self-assessments, experiments/demonstrations/research/projec
- B. 15% = Quarter Exam

# What do we study in Science?

Standards	Grade Five
1	Science Practices:  • The ways that scientists ask questions about the natural world, get and analyze data, develop explanations, and communicate their evidence-based scientific knowledge.
2	<ul> <li>Life Science:</li> <li>Explain with words and pictures that all living systems are made of cells, and that plant and animal cells have similar and different parts.</li> <li>Use systems concepts in describing that multicellular organisms are made of specialized cells that combine to form tissues, organs, and body systems.</li> <li>Explain the five kingdoms classification system and classify local animals as vertebrates or invertebrates and plants as vascular or nonvascular.</li> <li>Compare and contrast the parts of plants and their functions, and describe how people on Palau traditionally and currently use plants.</li> <li>Compare and contrast land biomes, and explain organism adaptations in the different biomes.</li> </ul>
3	<ul> <li>Earth and Space Science:</li> <li>Describe the global ocean and cite evidence of differences in salinity, temperature, depth, amount of light, and currents.</li> <li>Describe effects of winds, tides and global warming on sea levels.</li> <li>Measure, record and graph local weather conditions, and compare with data measured in other Palau locations.</li> <li>Distinguish between weather and climate, describe the variation in world climates by latitude, and explain that humans are changing global climate.</li> <li>Explain that the motions of the Earth and the moon (rotations and orbits) are the basis of our time systems, phases of the moon, and seasons.</li> <li>Explain that there are different kinds of galaxies in the universe, and identify the location of our solar system in the Milky Way galaxy.</li> </ul>
4	<ul> <li>Physical Science:</li> <li>Use physical properties to identify substances, compare physical and chemical changes, and model what is happening at the particle level during physical changes of state.</li> <li>Compare and contrast the forces of gravity, friction and magnetism.</li> <li>Distinguish different forms of energy and transformations of energy including the movement of thermal energy and the uses of stored chemical energy.</li> <li>Compare renewable and nonrenewable sources of energy, and model the transformations of energy involved in various modes of transportation and electricity generation.</li> </ul>

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