# Science

Syllabus: Grade 4

## Description:

In fourth grade science, students are introduced to topics like the transfer of energy, the structure of functioning of biological organisms and the Earth's materials and systems. Using experiments to test ideas and find answers is even more important in fourth grade science than in the previous years.

#### Science Standards:

Standard 1: Science Practices

Standard 2: Life Science

Standard 3: Earth and Space Science

Standard 4: Physical Science

## Science Objectives

The aims of the teaching and study of sciences are to encourage and enable students to: develop inquiring minds and curiosity about science and the natural world. acquire knowledge, conceptual understanding and skills to solve problems and make informed decisions in scientific and other contexts

#### Science Resources & Materials

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

Digital Resources

#### Class Rules:

- 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:**

| 1 | 90%-100% | % <i>,</i> | A |
|---|----------|------------|---|
| i | 80%-89%  |            | В |
|   | 70%-79%  |            | C |
| 1 | 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 Four  |
|-----------|---|
| 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: <ul> <li>Use examples of plants and animals living in different environments and climates to illustrate and explain that adaptations help organisms survive and reproduce in their environments.</li> <li>Analyze relationships among the living and the nonliving parts within land, freshwater and marine ecosystems.</li> <li>Describe human activities that harm the environment and human activities that help the environment.</li> </ul> </li> <li>Apply the concepts of organism adaptations and ecosystems to a variety of ocean organisms and ecosystems, and use food webs to illustrate the feeding relationships among organisms in an ecosystem.</li> </ul>  |
| 3         | <ul> <li>Earth and Space Science:</li> <li>The science of planet Earth and its place in the solar system and in the Universe.</li> <li>Compare different fossil fuels and how they were formed.</li> </ul>  |
| 4         | <ul> <li>Physical Science:</li> <li>The science of matter and energy at the smallest microscopic levels and at the largest levels of the Universe.</li> <li>Investigate how light interacts with different materials to describe reflection, refraction, absorption and the visible spectrum.</li> <li>Conduct investigations to explore important features of electricity and magnetism, including that they interact with each other.</li> <li>Use investigations to make conclusions about the effects of different forces on the motions of objects, and compare with forces and motions of the human body.</li> <li>Compare simple machines, explain how each can make it easier to do work, and compare with simple machines in the muscular and skeletal systems.</li> </ul> |