

Science 4th Grade Course Outline

Tokyo International Progressive School

Room: 24

Teacher: Mr. Jeffrey Visser

Course Description

This course is designed to develop students' understanding of the natural world through the study of key scientific concepts and the practices of scientific inquiry. Using the **HMH Into Science** resources, students will explore a variety of topics in Earth and space science, physical science, life science, and engineering.

Throughout the course, students will develop their ability to make observations, ask questions, analyze information, communicate scientific ideas, and apply scientific knowledge to real-world situations.

The major themes covered in this course include:

Energy

Students will explore:

- Speed
- Energy transfer
- Change in energy
- Energy conversion
- Energy from natural resources

Structure, Function and Information Processing

Students will investigate:

- Reflection of light
- Structure of plants and animals
- Process of information by animals

Earth's System: Processes that Shape the Earth

Students will explore:

- Patterns of rock formations and fossil
- Weathering and erosion
- Patterns of Earth's features
- Reducing impacts of Earth's processes

Waves

Students will investigate:

- Patterns and movement of waves
- Transfer of information by waves

Engineering Design

Students will develop an understanding of the engineering design process by learning how to:

- Define a problem
- Generate solutions
- Plan and test prototypes

Student Expectations

Students are expected to arrive in class prepared to learn and participate. Students should bring the following materials to every class:

- Pencil case
- Water bottle
- Computer
- Notebook
- Course folder

Students may have **water or tea** during class. Other food and beverages are not permitted unless special permission has been provided.

Upon entering the classroom, students are expected to follow the instructions provided by the teacher, begin the assigned work promptly, and participate appropriately in class discussions and activities.

Textbooks and Course Materials

Students will receive worksheets and other learning materials either in printed form or through Google Classroom. Students will also be provided with a science textbook.

Students are responsible for collecting their textbook from the designated classroom storage area at the beginning of class and returning it to the correct location at the end of class.

Textbooks must be kept in good condition. If a textbook is lost or returned in a condition that prevents it from being used by another student, the student's family may be responsible for the cost of a replacement textbook.

Assignments and Deadlines

Students are expected to submit all assignments by the stated due date.

If an assignment is not submitted by the deadline, a **0** will initially be recorded for the assignment, and the student may be required to attend WIN to complete the missing work.

If a student requires additional time to complete an assignment or assessment, it is the student's responsibility to communicate with the teacher **before the due date** and provide a valid reason for the extension request. If the teacher determines that the reason is legitimate, a new due date will be established.

If the assignment is not submitted by the agreed-upon extended deadline, the assignment will receive a **0**.

Earning Your Grade

Students' final grades will be determined using the following categories:

Category	Weight	Description
6 P's	10%	Students are expected to be Positive, Pleasant, Polite, Prepared, Punctual, and Productive in class.
Daily Work	25%	Includes daily classwork, science activities, assignments, and participation in class discussions.
Quizzes	20%	Short assessments, generally consisting of approximately 5–10 questions, designed to assess students' understanding of recently covered material.
Progress Tests	20%	Summative assessments given at the end of each unit and covering the material studied throughout that unit.
Projects	25%	Formal science projects completed throughout the year. Projects may include research, writing, scientific models, engineering activities, group work, and/or presentations.

The 6 P's

Students are expected to demonstrate the following behaviors consistently:

1. **Positive** – Maintain a constructive attitude toward learning.
2. **Pleasant** – Treat classmates and staff in a friendly and respectful manner.
3. **Polite** – Demonstrate appropriate manners and respect for others.
4. **Prepared** – Arrive with the required materials and be ready to learn.
5. **Punctual** – Arrive to class and submit work on time.
6. **Productive** – Use class time effectively and make a consistent effort.

Projects

A formal science project will generally be assigned at the end of each unit. Projects may require several lessons to complete and will allow students to apply the scientific concepts and skills they have learned.

Projects may include research, scientific writing, creating models, solving problems, engineering design, group work, and/or presentations. Students may be required to complete some project work outside of class.

Students are expected to demonstrate grade-appropriate scientific vocabulary, organization, communication, and understanding of the concepts being assessed.

Grading Scale

Grade	Percentage
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A+	98–100
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A	93–97
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B+	90–92
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B	85–89
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C+	82–84
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C	77–81
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D+	74–76
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D	70–73
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F	69 or below
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Assessment Schedule

Please note that the assessment schedule is tentative and may be adjusted according to student needs, instructional progress, and the school calendar.

Students can generally expect:

- **Quizzes:** Approximately every two weeks
- **Progress Tests and/or Projects:** Approximately once per month
- **Extended Projects:** Longer research, engineering, and/or presentation projects may be assigned throughout the year
- **Quarterly Projects:** At least one extended project will generally be completed each quarter

Students will be informed of major assessments and project deadlines in advance.