

# 6th Grade Science Syllabus

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## Contact Information:

Mr. Zach Buscher, Teacher

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Contact Hour: 2:00-3:00pm

## Course Description:

This course will engage students in exploring various scientific concepts, including light and matter, thermal energy, weather and climate, plate tectonics, natural hazards, and cells and systems. Students will conduct investigations, and analyze data to understand the natural world.

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## Course Objectives:

Students will meet the following Missouri Learning Standards for 6th grade: All dates are approximate. Teacher has the right to change schedule based on need.

### Unit 1: Light and Matter

- **End Date:** September 12
- **Assessment Date:** September 19
- **Priority Standard:**
  - 6-8.PS4.A.2: Develop and use a model to describe how waves are reflected, absorbed, or transmitted through various materials.

### Unit 2: Thermal Energy

- **End Date:** November 1
- **Assessment Date:** November 8
- **Priority Standards:**
  - 6-8.PS1.A.4: Develop a model to describe changes in particle motion, temperature, and state of a pure substance when thermal energy is added or removed.

- 6-8.PS3.A.3: Design, construct, and test a device that either minimizes or maximizes thermal energy transfer.
- 6-8.PS3.A.4: Plan and conduct an investigation to determine the relationships among energy transferred, type of matter, mass, and temperature changes.
- 6-8.PS3.B: Construct, use, and present arguments to support claims about energy transfer.
- 6-8.ETS1.B.3: Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process.

### **Unit 3: Weather, Climate, and Water Cycling**

- **End Date:** January 22
- **Assessment Date:** January 29
- **Priority Standards:**
  - 6-8.ESS2.C.1: Design and develop a model to describe the cycling of water through Earth's systems.
  - 6-8.ESS2.C.2: Research, collect, and analyze data on air masses and weather changes.
  - 6-8.ESS2.C.3: Develop a model to describe how unequal heating and Earth's rotation cause climate patterns.

### **Unit 4: Plate Tectonics and Rock Cycling**

- **End Date:** February 27
- **Assessment Date:** March 6
- **Priority Standards:**
  - 6-8.ESS1.C: Construct a scientific explanation based on evidence from rock strata.
  - 6-8.ESS2.A.1: Develop a model to illustrate how Earth's interior drives convection.
  - 6-8.ESS2.A.2: Construct an explanation for how geoscience processes change Earth's surface.
  - 6-8.ESS2.B: Analyze and interpret data on fossils and rocks to provide evidence of past plate motions.

### **Unit 5: Natural Hazards**

- **End Date:** April 7
- **Assessment Date:** April 14
- **Priority Standard:**
  - 6-8.ESS3.B.1: Analyze and interpret data on natural hazards to forecast future events.

## Unit 6: Cells and Systems

- **End Date:** May 15
  - **Assessment Date:** May 15
  - **Priority Standards:**
    - 6-8.LS1.A.1: Provide evidence that organisms are made of cells.
    - 6-8.LS1.A.2: Develop and use a model to describe cell functions.
    - 6-8.LS1.A.3: Develop an argument for how multicellular organisms are organized.
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## Required Materials:

- **Pencil:** For writing and completing assignments.
  - **Charged Chromebook:** For accessing online resources and completing assignments.
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## Grading Policy:

- **Grade Scale:**
  - A: 92.5 - 100%
  - A-: 89.5 - 92%
  - B+: 86.5 - 89%
  - B: 82.5 - 86%
  - B-: 79.5 - 82%
  - C+: 76.5 - 79%
  - C: 72.5 - 76%
  - C-: 69.5 - 72%
  - D+: 66.5 - 69%
  - D: 62.5 - 66%
  - D-: 59.5 - 62%
  - F: Below 59%
  - INC: Incomplete
- **Assessment Breakdown:**
  - Assessments (Quizzes and Tests): 60%
  - Coursework (Assignments, Projects, Homework, Activities, Participation, Bell Ringers, etc.): 40%

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## Homework Policy:

Homework will be assigned to reinforce concepts learned in class. Students are expected to complete all homework on time. Students will have 5 calendar days from the day assigned to turn the work in for credit. After that, it will be a 0 and marked incomplete. Homework assignments will be graded based on completeness and/or accuracy.

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## Phone Policy:

Students are required to keep their phones in their backpacks during class time unless instructed otherwise. If a phone is used without permission, it will be confiscated and can be retrieved at the end of the day from the office. The classroom is a learning environment, and minimizing distractions is essential for success. This is the building policy.

## Class Policies and Expectations:

1. **Respect:** Respect yourself, others, and classroom materials.
2. **Participation:** Actively engage in discussions and activities.
3. **Preparedness:** Bring all necessary materials and completed homework.
4. **Lab Safety:** Follow safety guidelines during experiments.
5. **Organization:** Keep materials and workspace neat.
6. **Responsible Technology Use:** Use technology responsibly for educational purposes.
7. **Effort:** Put forth your best effort in assignments and activities.
8. **Responsible Behavior:** Behave positively for a conducive learning environment.
9. **Kindness:** Be kind and cooperative with classmates.

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## 6th Grade Bell Schedule:

Homeroom/Breakfast	8:20-8:50
Blazertime	8:50-9:10
1st Hour	9:13-10:04
2nd Hour	10:07-10:58
3rd Hour	11:01-11:52
4th Hour Lunch:	11:55-1:12 12:09-12:31
5th Hour	1:15-2:05
6th Hour (Encore)	2:09-2:55
7th Hour (Encore)	2:59-3:50

This syllabus provides an overview of the course structure and expectations. Parents and guardians are encouraged to review this document with their students to foster a successful learning experience. Reach out with any questions.