

Course Syllabus

Course Title: Science, Grade 7

School Year: 2024-2025

Semester(s): 1 and 2

Grade Level(s): Grade 7

Course Day(s) and Times: Mondays and Wednesdays, 1:00 pm - 2:00 pm PST

Teacher Information

- **Name:** Ingrid Moon
- **Email:** ingrid.moon@brancheslearning.org
- **Office Hours:** By appointment only
- **Branches Learning Main Office Number:** (323) 955-0114

Class Materials - <https://brancheslearning.org/product/science-grade-7/#Materials>

Course Description

Our 7th-grade science course is aligned with the Next Generation Science Standards (NGSS) and is a blend of various sciences: life, earth, physical, and engineering/technology. By engaging in project-centered learning activities, students investigate multiple topics, including the impact of food chains, geoscience processes, atomic composition, and engineering design. Throughout the course, students pose questions, conduct observations, and formulate conclusions based on evidence. Projects promote creativity and encourage students to develop innovative solutions to real-world problems.

Course Units

Unit 1: Earth and Earth's Systems

Project: Safe Zone

- MS-ESS2-2: Geoscience Processes at Varying Scales
- MS-ESS2-3: Evidence of Plate Tectonics
- MS-ESS2-1: Cycling of Earth's Materials
- MS-ESS3-1: Uneven Distribution of Earth's Resources
- MS-ESS3-2: Natural Hazards

Unit 2: Structure and Properties of Matter

Project: Superhero

- MS-PS1-1: Atomic Composition Model
- MS-PS1-3: Synthetic Materials
- MS-PS1-4: Thermal Energy and Particle Motion

Unit 3: Chemical Reactions

Project: Cooking & Baking

- MS-PS1-2: Chemical Properties and Reactions
- MS-PS1-5: Conservation of Atoms in Reactions
- MS-PS1-6: Thermal Energy Design Project

Unit 4: Matter and Energy in Organisms and Ecosystems

Project: Zookeeper

- MS-LS1-6: Photosynthesis - Matter Cycling and Energy Flow
- MS-LS1-7: Food and Chemical Reactions
- MS-LS2-1: Effects of Resource Availability
- MS-LS2-3: Matter Cycling and Energy Flow in Ecosystems
- MS-LS2-4: Ecosystem Interactions and Dynamics

Assignments and Projects

Assignments and project descriptions will be provided for each unit on the web site and will be turned in on Google Classroom.

Students will complete one guided experiment during the unit, and one creative project to present as evidence of learning at the end of each unit. Quizzes will be administered to assess learning and identify areas for continued improvement. Weekly prompts and responses are participatory activities conducted during class. Points cannot be made up for missed classes or lack of participation, though there are more weeks than points, so it is possible to earn extra credit / bonus points by participating.

Unit	Deliverable	Points
1	Graham Cracker Lab (Tectonics)	10
1	Creative Project (Safety Design)	15
2	Molecular Modeling	10
2	Creative Project (Superhero Design)	15
all	Weekly Prompts & Responses (1 each)	20
all	Quizzes (5 each)	30
	Total (Semester 1)	100

Unit	Deliverable	Points
3	Experiment and Report (Thermal Transfer)	10
3	Creative Project (i.e. Solar Oven)	15
4	Experiment and Report (Flower Power*)	10
4	Creative Project (Habitat Construction)	15
all	Weekly Prompts & Responses (1 each)	20
all	Quizzes (5 each)	30
Total (Semester 2)		100

* May change, depending on resource availability and student preference.

Course Expectations

- Always come to class prepared with prior assignments completed.
- Expect to have coursework and project work outside of class time.
- Keep your camera on; active cameras count toward participation.
- Submit work on time, and you will never fall behind.
- Treat others with respect; that includes remaining focused on screen and in the chat, as well as during group work in breakout rooms.
- The more you participate in class, the more your peers will respect you.
- Never feel afraid to ask for help - the only dumb question is the one never asked.
- Communicate with me as soon as possible if there is any issue, question, or need for additional support.

Grading Scale - Middle School, Grades 6-8

- A = 90% -100%
- B = 80%-89%
- C = 70%-79%
- D = 60%-69%
- F = 0%-59%

Final grades are determined by the quality and completion of assignments, attendance, and participation.



Important Branches Learning Policy Information

Camera Policy

Branches Learning requires students to keep their cameras on during live classes unless otherwise instructed by the teacher. Exceptions can be made in rare circumstances if the course teacher, supervising teacher (HST), and the parent all approve a camera waiver.

Headset Policy

Students attending live classes from a shared space must have a headset with a microphone to ensure the class is not disrupted by background noise.

Attendance Policy

Absences must be reported to the course instructor via email or sent to info@brancheslearning.org. Class recordings are available upon requests.

Attendance and participation are part of the final grade. Students who miss more than 40% of live classes may fail the course. Exceptions may be made if a pre-approved plan is in place.

Late Work

Assignments turned in after the due date will result in a lower grade unless pre-approved by the instructor.