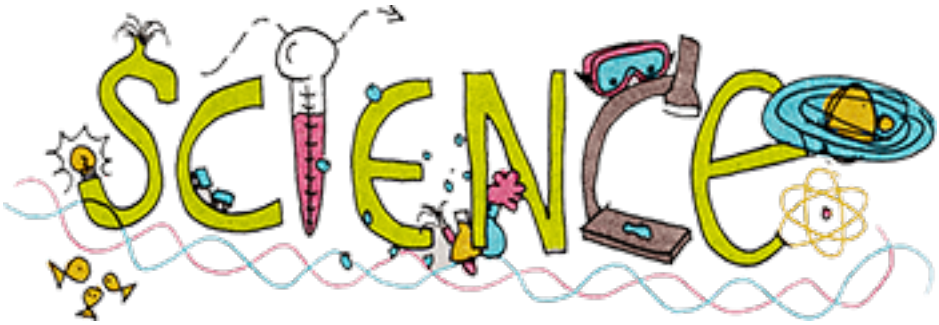
Science 5 Syllabus

Course Overview



In 5th grade science you will review the scientific method and experimental design to help you get ready to complete a science project at the end of the course. You will explore the Earth-Sun-Moon system, as well as the stars in our universe, and the effects of gravity. You will explore this amazing planet we call home as you learn about the various systems and cycles that shape it. You will learn all about matter: properties, phases, changes, and conservation, as well as mixtures and compounds. After studying matter, you will examine the ecosystems of our planet and how energy flows through food webs. Throughout each unit of the course you will examine humans' interaction with Earth and how we impact the planet we live on in both positive and negative ways. Finally, you will have the chance to design and carry out your very own science project on a topic of your choice.

Course Prerequisites

None

Required Text

None

Course Learning Outcomes



Big Ideas

- Scientific Method
- Earth's Place in the Universe
- Earth's Systems
- Matter
- Ecosystems & Webs
- Human Impacts

Enduring Understandings

- Describe that matter is made of particles too small to be seen through the development of a model.
- Develop an understanding of the idea that regardless of the type of change that matter undergoes, the total weight of matter is conserved.
- Determine whether the mixing of two or more substances results in new substances.
- Describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.

- Describe and graph data to provide evidence about the distribution of water on Earth.
- Develop an understanding of the idea that plants get the materials they need for growth chiefly from air and water.
- Using models, describe the movement of matter among plants, animals, decomposers, and the environment and that energy in animals' food was once energy from the sun.
- Develop an understanding of patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.

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ASSIGNMENT DESCRIPTIONS

- **Quizzes** - Quizzes will cover information from a single lesson. They may contain a combination of multiple choice, matching, true/false, multiple answer, interactive, and/or short answer questions.
- **Human Impact** - Throughout this course you will see on every summary page a Human Impact section. These sections will present some ways in which humans are impacting our Earth and how individuals and communities are using science ideas to protect our Earth from these impacts. We will look at three areas through the course: conservation, pollution and energy. Each unit will have a short quiz related to these topics and will be part of the quiz grading category.
- **Labs** - Labs are a critical part of Inquiry-Based Learning and allow the student to explore a topic of study in a more in-depth, hands-on manner. Most of the labs in this course require students to gather some very simple, household materials to complete, along with the items provided in the lab kit. Students will also find some virtual labs in the course, which may require them to visit a separate website to complete. Detailed instructions will be provided along the way.

- **Projects** - Projects allow students to explore the extensive crossover between science and art (these are designated with a paintbrush symbol). In addition, at the end of each module students will have a chance to step into the role of teacher in the “You’re the Teacher!” projects. In these unit assessments, students explain a big concept from the module in a format of their choosing.
- **Science Journal** - Students will use the Science Journal as guided notes. This helps students focus on important content within each module and reinforce learning through interaction with the lesson content.
- **Concept Checks** - Concept Checks are intended as self-assessments for students to determine where their strengths and weaknesses are in their understanding of the module concepts. Concept Checks will also serve as a way for students to communicate to their instructors regarding lingering questions they may have about the module.

Lab Kits & Supplies

Students will engage in virtual and physical labs throughout the course. Students will need the following materials and logins to complete the labs.

Lab Kit

You will need to order your lab kit by completing the form (link below). The kit will be shipped directly to your home and should take about 4-5 days to arrive. If you have any questions please contact your instructor.

https://www.cmasas.org/lab-kit-request-form

Lab Kit Inventory List (.pdf)

Additional Supplies

In addition to the supplies provided in the lab kit, students will also need to supply additional materials to complete the physical labs in the course. These are noted in a table at the beginning of each lab.

Extra Supply List

VIRTUAL LABS

Some virtual labs are completed through Explore Learning (Gizmos). You will need to request login information from your instructor. To login please do the following:

- Click the link provided in the lab instructions.
- Enter your teachers username. This will be provided with your login information.
- Choose your class, then select your name and select your product (Gizmos).
- Enter your password.
- You should then see a list of all the virutual labs available for your course. Each lab will list the name of the Gizmo you will need to complete for that lab assignment.

Grading Policy



High scores will be taken for each assignment and quiz. Students are expected to complete each assignment at Mastery level (80%) or higher.

Grades will be calculated as follows:

Scores in each category will be added together and divided by total possible points for that category and then multiplied by the weight of the category.

Category Weights

- Quizzes = 20%
- Labs = 40%
- Projects = 30%
- Science Journal = 10%

Grade Scale:

Percentage	Letter Grade	GPA
95 - 100	A	4.0
90 - 94.9	A-	3.7

87 - 89.9	B+	3.3
83 - 86.9	B	3.0
80 - 82.9	B-	2.7

Technical Requirements

Prerequisite Skills



Before you begin, you should be able to:

- Complete basic operations with a word processing software.
- Complete basic operations with presentation software.
- Perform online research using various search engines.
- Communicate through email.

Contact Technical Support

1. Check the **technical support webpage** to see if your issue is listed.
2. If your technical issue is not addressed on the technical support page then fill out a **support ticket**.

CMASAS Honor Code



CMASAS is a virtual community where we want all who join our school to feel valued. As a member of our community you have a responsibility to help build this type of environment by following our school's honor code. The honor code is outlined in the Parent-Student Handbook but we have provided a brief overview below.

- **Global citizenship**: Students are responsible for good behavior in our virtual hallways, just as they are in a classroom or a school hallway. Always use a computer in a way that shows consideration and respect. You are not to use obscene, profane, threatening, or disrespectful language. CMASAS expects students to adhere to the local and country laws applicable to them.
- **Act with academic integrity:** Integrity and authenticity of student work is something that we take very seriously at CMASAS. Do not cut, copy, or plagiarize internet content or the work of your online classmates.

- **Be mindful of copyrights:** Just as copying someone's writing is considered plagiarizing, so is the act of using someone else's photo, comic, joke, or quote without giving proper credit to its creator or author.
- **Be kind:** Communicate in a respectful and kind way, keeping comments and subject matter in posts appropriate.
- **Don't troll:** Avoid hijacking conversation threads for personal gain or steering conversation toward off-topic subjects or personal attacks toward another user.
- **Be sensitive to privacy:** Always limit your audience to a need-to-know basis.
- **Limit the spread of spam:** Spam is the equivalent of junk mail that clogs email inboxes and offers little professional or personal value while potentially opening up the users to hacking.
- **Use proper spelling and grammar**: Communicate with others using proper spelling and grammar. Save acronyms, web jargon, and shorthand for its prospective audience if it must be used at all.
- **Exercise self-control and open mindedness**: All students should exercise self-control, think before speaking, and look for value in the opinions of others.
- **Be respectful:** CMASAS requires that all comments made and opposing viewpoints expressed be done in nonconfrontational and respectful manner.
- **Consider consequences and protect yourself:** Think about the social consequences of any publicly accessible online community forum or other program you interact with.
- **Follow school policies:** All students must follow CMASAS school policies listed at the end of the Parent-Student Handbook.

Academic Integrity

Academic integrity is founded upon and encompasses the following five values: **honesty, trust, fairness, respect, and responsibility**. Supporting and affirming these values is essential to promoting and maintaining a high level of academic integrity. Each member of the academic community must stand accountable for his or her actions. As a result, a community develops in which students learn the responsibilities of citizenship and how to contribute honorably to their professions.

The first responsibility for academic integrity lies with individual students and faculty members of this community. A violation of academic integrity is an act harmful to all other students, faculty, and the school. Deceit and misrepresentations are incompatible with the fundamental activity of this academic institution and shall not be tolerated. Members of the CMASAS community are expected to foster in their own work the spirit of academic honesty and not to tolerate its abuse by others. This Academic Integrity Policy encompasses the duration of the student's enrollment with CMASAS.

Students are expected to practice responsible and honest behavior. Acts of academic dishonesty will not be tolerated at CMASAS and typical offenses are listed but not limited to the following:

- Copying material from other sources and claiming it as your own without citation.
- Soliciting answers from other students, online forums, or search engines.
- Intentional falsification or invention of date, citation, or other authority in an academic exercise.
- Taking someone else's work or ideas as your own, with or without their consent, by incorporating it into your work without full acknowledgment.
- Theft or alteration of materials.