

Odysseyware®

# SUPPLY LIST

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Science 800



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**UNIT 1: OUR ATOMIC WORLD**


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Assignment	Summary	Video Demo	Supplies
Project: Scientific Inquiry	Use the process of inquiry and the scientific method to design and implement comparative and experimental investigations by making observations, asking well-defined questions, formulating testable hypotheses, and using appropriate equipment and technology.	No	<ul style="list-style-type: none"> <li>internet access for research purposes</li> </ul>
Project: Descriptive Statistics	Using information collected from the Bureau of Labor Statistics to create a presentation of three different occupations in the field of architecture and engineering.	No	<ul style="list-style-type: none"> <li>internet access for research purposes</li> <li>a slideshow or presentation program such as PowerPoint®</li> </ul>
Project: Chemical Reactions	This experiment will allow you to investigate the law of conservation of mass when a gas is produced in a chemical reaction.	Yes	<ul style="list-style-type: none"> <li>safety goggles</li> <li>aprons</li> <li>1 Beaker capable of measuring 8oz</li> <li>1 8oz cup</li> <li>2 Alka-Seltzer tablets</li> <li>1 Measuring device such as a triple beam balance, or balance that can measure weight in grams.</li> <li>1 Quart size zip lock bag</li> </ul>
Experiment: Calorimetry	In this experiment, you will build a calorimeter.	Yes	<ul style="list-style-type: none"> <li>goggles</li> <li>heat Resistant Gloves or Tongs</li> <li>scale</li> <li>large Styrofoam cup</li> <li>small Styrofoam cup</li> <li>flat piece of Styrofoam</li> <li>2 Thermometers</li> <li>cardboard to cover the top of the cup</li> <li>rubber Band</li> <li>slice of Bread</li> <li>microwave</li> <li>plate</li> </ul>
Project: Reactors	Write a 600-word report discussing nuclear reactors.	No	<ul style="list-style-type: none"> <li>research resources</li> </ul>
*Special Project	Use this Special Project template to create your own assignment for this unit.	N/A	N/A

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**UNIT 2: PERCEIVING THINGS**


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Assignment	Summary	Video Demo	Supplies	
Project: Making Graphs	In this project, you will be designing three graphs based on information given to you in tables. You must organize the information into graphs and make them clear and understandable.	Yes	<ul style="list-style-type: none"> <li>graph paper</li> <li>protractor</li> </ul>	
Experiment: Determining Volume	We have looked at volume and some different ways of determining it. In this experiment, we will use some of these techniques to determine the volumes of objects.	No	<ul style="list-style-type: none"> <li>graduated cylinder</li> <li>small rock</li> <li>string</li> </ul>	<ul style="list-style-type: none"> <li>meter stick or ruler</li> <li>water</li> </ul>
Experiment: Mass of Gas	We often do not think of gas in terms of having mass. The atmosphere is something we live in and breathe. In this experiment, we will investigate whether gas does truly have mass.	Yes	<ul style="list-style-type: none"> <li>two balloons of the same size</li> <li>meter stick</li> </ul>	<ul style="list-style-type: none"> <li>string</li> <li>paper clips</li> </ul>
*Special Project	Use this Special Project template to create your own assignment for this unit.	N/A	N/A	

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**UNIT 3: PHYSICAL GEOLOGY**


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Assignment	Summary	Video Demo	Supplies	
Project: Volcanoes	In this project, you will learn about a specific volcano. Research a historical volcanic eruption, such as Mt. Vesuvius or Mt. St. Helens. Write a 600-word report on what you learned.	No	<ul style="list-style-type: none"> <li>research resources</li> </ul>	
Experiment: Specific Gravity	In this experiment, we will measure the specific gravity of rocks.	Yes	<ul style="list-style-type: none"> <li>balance</li> <li>set of metric masses</li> </ul>	<ul style="list-style-type: none"> <li>strong thread</li> <li>various rocks</li> <li>beaker</li> </ul>
Experiment: Gravity	In this simulation, you will investigate the relationships between gravitational force, mass, and distance.	No	N/A	
*Special Project	Use this Special Project template to create your own assignment for this unit.	N/A	N/A	

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**UNIT 4: HISTORICAL GEOLOGY**


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Assignment	Summary	Video Demo	Supplies
Project: Relative Dating	In this project you will learn how to identify and apply stratigraphic laws to rock strata. Prepare the information you gathered into a slideshow presentation.	No	<ul style="list-style-type: none"> <li>internet access for research purposes</li> <li>a slideshow or presentation program such as PowerPoint®</li> </ul>
*Special Project	Use this Special Project template to create your own assignment for this unit.	N/A	N/A

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**UNIT 5: OCEANOGRAPHY**


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Assignment	Summary	Video Demo	Supplies
Project: The Moon and Tides	Research and write a 600-word report on the effect of the moon on tidal reaction.	No	<ul style="list-style-type: none"> <li>research resources</li> </ul>
Project: Marine Report	Choose one: <ol style="list-style-type: none"> <li>Write a 400-word report on fish meal production, the role of fish meal in the food chain process which occurs off the coast of Peru, or on its value as a source of protein compared to other marine life.</li> <li>Research the life of Jacques Cousteau. Write a 400-word paper on his importance to the science of oceanography.</li> </ol>	No	<ul style="list-style-type: none"> <li>research resources</li> </ul>
*Special Project	Use this Special Project template to create your own assignment for this unit.	N/A	N/A

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**UNIT 6: BALANCE IN NATURE**


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Assignment	Summary	Video Demo	Supplies
Project: Impact of Humans	Research genetic engineering in plants and animals. Prepare the information you gathered into a slideshow presentation.	No	<ul style="list-style-type: none"> <li>internet access for research purposes</li> <li>a slideshow or presentation program such as PowerPoint®</li> </ul>
Project: Genetics	Select some particular plant or animal and find out how it has been improved because of the study of genetics.	No	<ul style="list-style-type: none"> <li>research resources</li> </ul>
Experiment: Seed or Seedless	Examine and compare several varieties of seedless fruits with those which are seeded.	Yes	<ul style="list-style-type: none"> <li>a banana (only the seedless kind are available)</li> <li>a navel orange and a seeded variety of an orange</li> <li>a small bunch of seedless grapes</li> <li>a small bunch of seeded grapes</li> <li>a plastic knife with a serrated edge for cutting</li> <li>three paper towels</li> <li>drawing paper</li> <li>pencils/colored pencils</li> </ul>
Experiment: Pea Pod	In this experiment, you will dissect a pea pod.	Yes	<ul style="list-style-type: none"> <li>1 large, unopened pea pod (USE ONLY FULLY DEVELOPED PODS. Beans will work, but not as well.)</li> <li>a ruler marked in millimeters</li> <li>drawing paper</li> <li>pencils/colored pencils</li> </ul>
*Special Project	Use this Special Project template to create your own assignment for this unit.	N/A	N/A

**UNIT 7: SCIENCE AND TOMORROW**


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Assignment	Summary	Video Demo	Supplies
Project: Digital Transmissions	This is a guided research paper where you will have the opportunity to learn about and compare analog and digital information, transmission and storage. You will then write a 5-paragraph paper to demonstrate what you have learned on the topics.	No	<ul style="list-style-type: none"> <li>research resources</li> </ul>
*Special Project	Use this Special Project template to create your own assignment for this unit.	N/A	N/A

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**UNIT 8: THE SOLAR SYSTEM**

Assignment	Summary	Video Demo	Supplies
Project: Solar System Model	In this project, you will create a scale model of the solar system.	No	<ul style="list-style-type: none"> <li>• large backyard or field</li> <li>• measuring tape</li> <li>• construction paper</li> <li>• metric ruler</li> </ul> <ul style="list-style-type: none"> <li>• pencil</li> <li>• scissors</li> <li>• tape</li> <li>• nine bamboo skewers or sharpened pencils</li> </ul>
Project: Planet Comparison	In this project, you will create pie charts, bar graphs, and pictographs to compare basic characteristics of the planets.	No	<ul style="list-style-type: none"> <li>• protractor</li> <li>• plain paper</li> <li>• colored pencils or markers</li> </ul> <ul style="list-style-type: none"> <li>• ruler</li> <li>• pencil</li> <li>• graph paper</li> </ul>
*Special Project	Use this Special Project template to create your own assignment for this unit.	N/A	N/A

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**UNIT 9: ASTRONOMY**

Assignment	Summary	Video Demo	Supplies
Project: Beyond Our Solar System	In this project, you will research a celestial objects or events not covered in this unit. You will then write a five-paragraph (300 word) report on what you've learned.	No	<ul style="list-style-type: none"> <li>• research resources</li> </ul>
Project: Astronomy Timeline	Research astronomy during a specific time span and create a timeline of important events.	No	<ul style="list-style-type: none"> <li>• research resources</li> <li>• You may use several materials to create your timeline, including a roll of paper, construction paper, or the computer.</li> </ul>
Project: Telescopes	Research the critical new developments in telescopes. Write a 200-word paper on the new developments.	No	<ul style="list-style-type: none"> <li>• research resources</li> </ul>
*Special Project	Use this Special Project template to create your own assignment for this unit.	N/A	N/A

(\* ) indicates an alternative assignment