

Odysseyware®

SUPPLY LIST

Science 500



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UNIT 1: CELLS

Assignment	Summary	Video Demo	Supplies
Experiment: The Microscope	In this experiment, you will learn how to use a compound light microscope.	Yes	<ul style="list-style-type: none"> • compound light microscope • slide • slide cover • eye dropper <ul style="list-style-type: none"> • water • newspaper page • scissors
*Project: Robert Hooke	Write a report on Robert Hooke.	No	<ul style="list-style-type: none"> • research resources
*Experiment: Beans	In this experiment, you will make observations, and create drawings in regards to the beans.	No	<ul style="list-style-type: none"> • 3 baby-food jars half full of water • knife <ul style="list-style-type: none"> • 3 dried kidney beans • ruler
*Experiment: Onion Cells	In this experiment, you will study the cells of onion.	Yes	<ul style="list-style-type: none"> • onion bulb with leaves and roots • knife • tweezers • slide cover <ul style="list-style-type: none"> • microscope • microscope slide • iodine stain • toothpick
*Experiment: Pond Water	In this experiment, you will identify animals from pond water.	Yes	<ul style="list-style-type: none"> • microscope • slide • slide cover <ul style="list-style-type: none"> • dropper • pond water
*Project: Be Creative	In this project, you will pick an activity that challenges your imagination.	No	N/A
*Project: Explain Cells	In this project, you will write what you know about cells.	No	N/A
*Project: Anton Van Leeuwenhoek	In this project, you will write a report about Leeuwenhoek.	No	<ul style="list-style-type: none"> • research resources
*Experiment: Stem	In this experiment, you will test the effects that water has on a flower stem.	No	<ul style="list-style-type: none"> • one glass with water • one glass without water • two flowers with stems, two blades of green grass, or two stems of <i>similar</i> plants
* Experiment: Cheek Cells	In this experiment, you will use iodine to stain cells from the inside of your cheek.	Yes	<ul style="list-style-type: none"> • microscope • two slides • iodine stain • toothpick <ul style="list-style-type: none"> • eye dropper • water • two slide covers
*Special Project	Use this Special Project template to create your own assignment for this unit.	N/A	N/A

UNIT 2: PLANTS: LIFE CYCLES

Assignment	Summary	Video Demo	Supplies
Experiment: Flower Dissection	In this activity, you will look at the structure of two different types of flowers.	Yes	<ul style="list-style-type: none"> • 2 flowers • microscope • 2 microscope slides • 2 slide covers <ul style="list-style-type: none"> • magnifying glass • straight pins • paper • dropper • knife
* Project: Draw Flowers	Select a flower from two different types of plants. On separate pieces of paper, draw each of the flowers. Label the parts you can see.	No	<ul style="list-style-type: none"> • research resources
* Experiment: Seed Dissection	In this experiment, you will dissect a seed and answer some questions.	Yes	<ul style="list-style-type: none"> • lima bean seed • knife • corn seed <ul style="list-style-type: none"> • baby food jar half full of water • tweezers
* Experiment: Cones	In this experiment, you will examine cones.	No	<ul style="list-style-type: none"> • male and female cones
* Project: Seed Hunt	This activity will give you an opportunity to discover the seeds in a certain location.	No	N/A
* Project: Walking Fern	In this project, you will research some information on the Walking Fern.	No	<ul style="list-style-type: none"> • research resources
* Experiment: Mold	In this experiment, you will study mold.	Yes	<ul style="list-style-type: none"> • slice of bread • large jar with lid • magnifying glass • microscope <ul style="list-style-type: none"> • microscope slide • dropper • slide cover • tweezers
* Project: Uses of Fungi	Research and write a report about the good things fungi does for us.	No	<ul style="list-style-type: none"> • research resources
*Special Project	Use this Special Project template to create your own assignment for this unit.	N/A	N/A

UNIT 3: ANIMALS: LIFE CYCLES

Assignment	Summary	Video Demo	Supplies	
*Project: Protozoa	Write a report about one of the protozoa species.	No	<ul style="list-style-type: none"> research resources 	
*Experiment: Mealworm	In this experiment, you will observe a meal worm.	Yes	<ul style="list-style-type: none"> clear container with lid bran flakes or oatmeal potato 	<ul style="list-style-type: none"> magnifying glass mealworm knife
*Project: Spiders	In this project, you will study spiders.	No	<ul style="list-style-type: none"> research resources 	
*Project: Insect Study	Write a 150-word report about it. Include information about the insect's life cycle.	No	<ul style="list-style-type: none"> research resources 	
*Experiment: Chicken Egg	In this experiment, you will study a chicken egg.	No	<ul style="list-style-type: none"> chicken egg dropper small dish 	<ul style="list-style-type: none"> tissue paper magnifying glass food coloring
*Project: Mammals	In this project, you will select a mammal and study it.	No	<ul style="list-style-type: none"> research resources 	
*Special Project	Use this Special Project template to create your own assignment for this unit.	N/A	N/A	

UNIT 4: WEB OF LIFE

Assignment	Summary	Video Demo	Supplies	
*Project: The Carbon Cycle	Draw a diagram of the carbon cycle.	No	N/A	
*Project: Cycles	Draw a diagram that includes the water cycle, carbon cycle, and nitrogen cycle.	No	N/A	
*Project: Food Chain	Draw a picture of a food chain.	No	N/A	
*Project: Build a Terrarium	In this project, you will build a terrarium.	No	<ul style="list-style-type: none"> large container (glass or clear plastic) --at least 2 liters container cover or lid gravel several cans or small jars 	<ul style="list-style-type: none"> small sprinkling can something to punch holes through a lid potting soil small shovel sand

			• bottle cap	• water
*Project: Terrarium Check	In this project, you will be keeping a daily record of your terrarium.	No		N/A
*Project: Prairie Land	In this project, you will locate prairie lands on a map.	No	• a map of North America • research resources	
*Project: Prairie Birds	Research and write a report about a prairie bird.	No	• research resources	
*Project: Prairie Food Chain	List several food chains using plants and animals found in the prairie today.	No	• research resources	
* Project: Special Environments	In this project, you will study a special environment.	No	• research resources	
*Special Project	Use this Special Project template to create your own assignment for this unit.	N/A		N/A

UNIT 5: TRANSFORMATION OF ENERGY

Assignment	Summary	Video Demo	Supplies	
*Experiment: Paperclip	In this experiment, you will study the transformation of energy in a paper clip.	No	• 2 paper clips	
*Experiment: Heat Energy	In this experiment, you will learn about heat energy.	No	• yellow construction paper • a thermometer	
*Experiment: Chemical Energy	In this experiment, you will learn about chemical energy.	Yes	• 1 deciliter of vinegar • thermometer	• 1 spoonful of baking soda • 1 glass jar
*Project: Energy	In this experiment, you will learn about energy.	No	• research resources	
*Experiment: Sunlight	This experiment will show how the sun's rays can warm water, and how soon the water cools off after being taken out of sunlight. (You will need a sunny day for this experiment.)	No	• a baby-food jar filled with water (the one you set aside earlier) • a thermometer	
*Project: Survey	Take a survey to find out what some people are doing to help solve the energy problem.	No	• people to survey	
*Special Project	Use this Special Project template to create your own assignment for this unit.	N/A		N/A

UNIT 6: PHYSICAL GEOLOGY

Assignment	Summary	Video Demo	Supplies
*Project: Volcanoes	In this lesson, you will research a specific volcano.	No	<ul style="list-style-type: none"> research resources
*Project: Weathering	In this project, you will study both mechanical and chemical weathering.	No	<ul style="list-style-type: none"> pictures of examples of both mechanical and chemical weathering paper research resources
*Special Project	Use this Special Project template to create your own assignment for this unit.	N/A	N/A

UNIT 7: RECORDS IN ROCK: FOSSILS

Assignment	Summary	Video Demo	Supplies
Experiment: Fossils	In this activity, you will examine what happens to make a mold fossil.	Yes	<ul style="list-style-type: none"> a small plastic container (about 10 centimeters across) modeling clay (1 light and 1dark) a seashell or bone
*Experiment: Cast Fossil	In this activity, you will consider how a cast fossil is made.	No	<ul style="list-style-type: none"> the mold fossil copy from the earlier activity molding plaster a tin can and stick a jar of water
*Project: Look for Fossils	In this activity, you will learn of several ways to look for fossils.	No	<ul style="list-style-type: none"> possible field trip
*Project: Plants and Animals	Select a term that you have not learned about and complete the activities in the assignment.	No	<ul style="list-style-type: none"> research resources paper pencil
*Project: Fossil Clues	In this project, you will study fossil clues.	No	N/A
*Project: Label the Skeleton	Draw and label a skeleton.	No	<ul style="list-style-type: none"> paper colored pencils
*Project: Be Creative	Draw a picture of a reconstructed animal in which bones from two animals were used.	No	<ul style="list-style-type: none"> paper pencil
*Special Project	Use this Special Project template to create your own assignment for this unit.	N/A	N/A

UNIT 8: RECORDS IN ROCK: GEOLOGY

Assignment	Summary	Video Demo	Supplies	
*Experiment: Examine an Orange	In this experiment, you will examine an orange.	No	<ul style="list-style-type: none"> orange magnifying glass 	
*Project: Examine a Mineral	In this experiment, you will examine a mineral.	No	<ul style="list-style-type: none"> small amount of table salt 	<ul style="list-style-type: none"> magnifying glass colored paper
*Project: Rocks and Minerals	In this project, you will study your rock.	No	<ul style="list-style-type: none"> a rock 	
*Project: Rock Hunt	In this project, you will learn more about rocks.	No	<ul style="list-style-type: none"> poster paper pencil research resources 	<ul style="list-style-type: none"> 10 different rocks cardboard glue
* Experiment: Erosion	In this project, you will study erosion.	Yes	<ul style="list-style-type: none"> plastic tub or metal pan short board 	<ul style="list-style-type: none"> glass of water mixture of soil, sand, large and small pebbles
*Project: Volcanoes	In this project, you will learn about volcanoes.	No	<ul style="list-style-type: none"> research resources 	
*Special Project	Use this Special Project template to create your own assignment for this unit.	N/A		N/A

UNIT 9: CYCLES IN NATURE

Assignment	Summary	Video Demo	Supplies	
Experiment: Volume	In this experiment, you will learn about volume.	Yes	<ul style="list-style-type: none"> tall, thin jar (Alka-Seltzer bottle) small marble 	<ul style="list-style-type: none"> large marble masking tape ruler
*Experiment: Water Container	In this experiment, you will compare the volume of water in different containers.	No	<ul style="list-style-type: none"> baby-food jar 4 differently-shaped clear containers 	
*Experiment: Types of Changes	In this experiment, you will learn about chemical and physical changes.	Yes	<ul style="list-style-type: none"> candle in candle holder match 	<ul style="list-style-type: none"> large glass plate or pan
*Experiment: Conservation of Matter	In this activity, you will make a prediction. Your prediction will be based on the reading, conservation of matter, from this unit.	Yes	<ul style="list-style-type: none"> equal-arm balance 2 baby-food jars same size 	<ul style="list-style-type: none"> 2 baby-food jar lids same size ice cube dropper

*Project: Antoine Lavoisier	Write a report on Antoine Lavoisier's observations and findings.	No	<ul style="list-style-type: none"> research resources
*Project: Globe	In this project, you will use a globe to look at continents.	Yes	<ul style="list-style-type: none"> globe with a tilted axis
*Project: Comets	Research comets and write a report.	No	<ul style="list-style-type: none"> research resources
*Experiment: Evaporation	In this experiment, you will learn about evaporation.	No	<ul style="list-style-type: none"> liquid measure funnel two identical pans
*Special Project	Use this Special Project template to create your own assignment for this unit.	N/A	N/A

UNIT 10: LOOK AHEAD

Assignment	Summary	Video Demo	Supplies
*Experiment: Mitosis and Budding	In this experiment, you will learn about mitosis and budding.	No	<ul style="list-style-type: none"> research resources
*Project: Organs and Tissue	In this project, you will learn more about one of the body's organs or tissues.	No	<ul style="list-style-type: none"> research resources
* Project: Organism Report	In this project, you will learn about a specific animal.	No	<ul style="list-style-type: none"> research resources
*Project: Use the News	Write a summary of one of the articles where humans influence the balance of nature.	No	<ul style="list-style-type: none"> recent newspapers and/or magazines
*Project: Landforms	Write a summary about one of earth's famous landforms.	No	<ul style="list-style-type: none"> research resources
*Project: Make A Collage	Make a collage of pictures that show work or the result of work. Make an interesting arrangement of these pictures.	No	<ul style="list-style-type: none"> magazines poster paper glue
*Special Project	Use this Special Project template to create your own assignment for this unit.	N/A	N/A

* indicates an alternative assignment