



Switched-On
SCHOOLHOUSE® 2010 EDITION

Science Lab Supply List

Science 500

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SCIENCE 500 (2010): UNIT 1 - CELLS

Assignment Number	Assignment Title	Project Summary and Supply List
3	Experiment: Skin Cells	<p>Your goal for this assignment is to use a microscope to examine examples of different types of cells.</p> <p>Supply List:</p> <ul style="list-style-type: none"> <li style="width: 50%;">• microscope <li style="width: 50%;">• small eye dropper or toothpick <li style="width: 50%;">• slide <li style="width: 50%;">• knife <li style="width: 50%;">• slide cover <li style="width: 50%;">• diluted iodine solution
7	Experiment: Onion Cells	<p>Your goal for this assignment is to examine the structure of onion cells using a microscope.</p> <p>Supply List:</p> <ul style="list-style-type: none"> <li style="width: 50%;">• onion bulb with leaves and roots <li style="width: 50%;">• microscope <li style="width: 50%;">• knife <li style="width: 50%;">• microscope slide <li style="width: 50%;">• tweezers <li style="width: 50%;">• iodine stain <li style="width: 50%;">• slide cover <li style="width: 50%;">• toothpick
8	Experiment: Pond Water Examination	<p>Your goal for this assignment is to observe pond water organisms using a microscope.</p> <p>Supply List:</p> <ul style="list-style-type: none"> <li style="width: 50%;">• microscope <li style="width: 50%;">• dropper <li style="width: 50%;">• slide <li style="width: 50%;">• pond water <li style="width: 50%;">• slide cover
9	Experiment: Cheek Cells	<p>Your goals for this assignment are to examine cheek cells using a microscope and to compare cheek and skin cells.</p> <p>Supply List:</p> <ul style="list-style-type: none"> <li style="width: 50%;">• microscope <li style="width: 50%;">• toothpick <li style="width: 50%;">• slide <li style="width: 50%;">• slide cover <li style="width: 50%;">• iodine stain
10	Experiment: Blood Cells	<p>Your goal for this assignment is to examine blood cells using a microscope.</p> <p>Supply List:</p> <ul style="list-style-type: none"> <li style="width: 50%;">• microscope <li style="width: 50%;">• dropper <li style="width: 50%;">• two slides <li style="width: 50%;">• needle <li style="width: 50%;">• rubbing alcohol <li style="width: 50%;">• ink stain <li style="width: 50%;">• cotton ball
16	Special Project	Special Project assignments are used by teachers to create their own projects if needed.

SCIENCE 500 (2010): UNIT 2 - PLANTS: LIFE CYCLES

Assignment Number	Assignment Title	Project Summary
6	Experiment: Flower Dissection	<p>Your goal for this assignment is to identify the main reproductive parts of seed-bearing and spore-bearing organism.</p> <p>Supply List:</p> <ul style="list-style-type: none"> • 2 flowers • microscope • 2 microscope slides • 2 slide covers • magnifying glass • straight pins • paper • dropper • sharp knife
8	Experiment: Seed Dissection	<p>Your goal for this assignment is to identify the main reproductive parts of seed-bearing and spore-bearing organism.</p> <p>Supply List:</p> <ul style="list-style-type: none"> • lima bean seed • knife • corn seed • baby food jar half full of water • tweezers
10	Project: Examining Cones	<p>Your goal for this assignment is to identify the main reproductive parts of seed-bearing and spore-bearing organism.</p> <p>Supply List: N/A</p>
11	Project: Seed Hunt	<p>Your goal for this assignment is to identify the main reproductive parts of seed-bearing and spore-bearing organism.</p> <p>Supply List: N/A</p>
15	Report: Walking Fern	<p>Your goal for this assignment is to explain differences between the main categories of plants, fungi, and protists.</p> <p>Supply List: N/A</p>
17	Experiment: Mold	<p>Your goal for this assignment is to grow some mold.</p> <p>Supply List:</p> <ul style="list-style-type: none"> • slice of bread • large jar with lid • magnifying glass
21	Special Project	<p>Special Project assignments are used by teachers to create their own projects if needed.</p>

SCIENCE 500 (2010): UNIT 3 - ANIMALS: LIFE CYCLES

Assignment Number	Assignment Title	Project Summary
3	Report: Protozoa	Your goal for this assignment is to find out about the structure and the means of reproduction of a protozoan that you choose. Supply List: N/A
5	Experiment: Mealworm	Your goal for this assignment is to observe the behavior and growth of a mealworm. Supply List: <ul style="list-style-type: none"> • baby-food jar with lid • bran flakes or oatmeal • potato • magnifying glass • mealworm • knife
6	Report: The Spider	Your goal for this assignment is to research and answer questions about spiders. Supply List: N/A
7	Report: Insect Study	Your goal for this assignment is to write about the life cycle of an insect. Supply List: N/A
14	Experiment: Chicken Egg	Your goal for this assignment is to examine the external and internal structure of a chicken egg. Supply List: <ul style="list-style-type: none"> • chicken egg • dropper • small dish • tissue paper • magnifying glass • food coloring
16	Report: Mammals	Your goal for this assignment is to write about a mammal. Supply List: N/A
17	Essay: God and Animals	Your goal for this assignment is to write an essay on the meaning of Psalm 104. Supply List: N/A
19	Special Project	Special Project assignments are used by teachers to create their own projects if needed.

SCIENCE 500 (2010): UNIT 4 - BALANCE IN NATURE

Assignment Number	Assignment Title	Project Summary
2	Project: Cycles	Your goal for this assignment is to draw the water cycle, carbon cycle, and chemical cycle. Supply List: N/A
4	Project: Terrarium Project	Your goal for this assignment is to build a terrarium. Supply List <ul style="list-style-type: none"> • Large container (glass or clear plastic)—at least 2 liter capacity • container cover or lid • gravel • potting soil • several cans or small jars • sand • small sprinkling can • bottle cap • something to punch holes in lid • water
7	Project: Prairie Land	Your goal for this assignment is to list prairie lands in North America. Supply List: N/A
9	Report: Prairie Birds	Your goal for this assignment is to write about a prairie bird. Supply List: N/A
11	Project: Prairie Food Chain	Your goal for this assignment is to list food chains found in the prairie. Supply List: N/A
12	Project: Special Environments	Your goal for this assignment is to write about an environment. Supply List: N/A
17	Special Project	Special Project assignments are used by teachers to create their own projects if needed.

SCIENCE 500 (2010): UNIT 5 - TRANSFORMATION OF ENERGY

Assignment Number	Assignment Title	Project Summary
5	Experiment: Heat From the Sun	<p>Your goal for this assignment is to investigate how light energy and temperature are related.</p> <p>Supply List</p> <ul style="list-style-type: none"> • yellow construction paper • a thermometer
7	Experiment: Heat from Bending	<p>Your goal for this assignment is to investigate how movement and heat are related.</p> <p>Supply List</p> <ul style="list-style-type: none"> • 2 paper clips
8	Experiment: Heat Energy from a Chemical Reaction	<p>Your goal for this assignment is to investigate how chemical energy and temperature are related.</p> <p>Supply List</p> <ul style="list-style-type: none"> • 3 liquid ounces of vinegar • 1 glass jar • 1 tablespoon of baking soda • 1 thermometer
13	Experiment: Solar Energy for Heat	<p>Your goal for this assignment is to investigate how light energy and water temperature are related.</p> <p>Supply List</p> <ul style="list-style-type: none"> • a baby-food jar filled with water (The jar should be placed somewhere in the room where sunlight will not reach it. Set it aside for at least half hour before using it.) • a thermometer
15	Special Project	<p>Special Project assignments are used by teachers to create their own projects if needed.</p>

SCIENCE 500 (2010): UNIT 6 - RECORDS IN THE ROCK: THE FLOOD

Assignment Number	Assignment Title	Project Summary
5	Project: Interview with Noah	Your goal for this assignment is to write a news article about an interview with Noah. Supply List: N/A
7	Report: Ancient Flood Stories	Your goal for this assignment is to research and answer questions about flood stories from other cultures. Supply List: N/A
12	Special Project	Special Project assignments are used by teachers to create their own projects if needed.

SCIENCE 500 (2010): UNIT 7 - RECORDS IN THE ROCK: FOSSILS

Assignment Number	Assignment Title	Project Summary
2	Project: Mold Fossil Copy	Your goal for this assignment is to create a copy of a fossil mold. Supply List <ul style="list-style-type: none"> • a small plastic container (about 10 centimeters across) • modeling clay • a seashell or bone
3	Project: Cast Fossil Copy	Your goal for this assignment is to create a copy of a fossil mold. Supply List <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
9	Project: Plant and Animal Fossils	Your goal for this assignment is to draw a picture and write an article about a plant or animal group. Supply List: N/A
11	Project: Fossil Clues	Your goal for this assignment is to identify clues for fossil identification. Supply List: N/A
13	Project: Label the Skeleton	Your goal for this assignment is to use a skeleton to infer what an animal might have looked like. Supply List: N/A
14	Project: Be Creative	Your goal for this assignment is to "reconstruct" a skeleton, using bones of different animals. Supply List: N/A
16	Special Project	Special Project assignments are used by teachers to create their own projects if needed.

SCIENCE 500 (2010): UNIT 8 - RECORDS IN ROCK: GEOLOGY

Assignment Number	Assignment Title	Project Summary
2	Project: Compare an Orange and the Earth	Your goals for this assignment are to examine the skin of an orange at two different distances and to compare your observations to the appearance of the earth's surface. Supply List <ul style="list-style-type: none"> <li style="display: inline-block; width: 45%;">• orange <li style="display: inline-block; width: 45%;">• magnifying glass
5	Project: Examine a Mineral	Your goal for this assignment is to examine the structure of salt using a magnifying glass. Supply List <ul style="list-style-type: none"> <li style="display: inline-block; width: 45%;">• small amount of table salt <li style="display: inline-block; width: 45%;">• colored paper <li style="display: inline-block; width: 45%;">• magnifying glass
7	Report: Rocks	Your goal for this assignment is to research and write about a type of rock. Supply List: N/A
8	Project: Rock Hunt	Your goal for this assignment is to complete an activity about rocks. Supply List: N/A
11	Experiment: Erosion	Your goal for this assignment is to investigate the effect of running water on soil erosion. Supply List <ul style="list-style-type: none"> <li style="display: inline-block; width: 45%;">• plastic tub or metal pan <li style="display: inline-block; width: 45%;">• mixture of soil, sand, large and small pebbles <li style="display: inline-block; width: 45%;">• short board <li style="display: inline-block; width: 45%;">• glass of water
14	Project: Volcano Summary	Your goal for this assignment is to research and write a summary on a famous volcano. Supply List: N/A
17	Special Project	Special Project assignments are used by teachers to create their own projects if needed.

SCIENCE 500 (2010): UNIT 9 - CYCLES IN NATURE

Assignment Number	Assignment Title	Project Summary
3	Experiment: Volume	<p>Your goal for this assignment is to calculate the volume of an object using water displacement.</p> <p>Supply List</p> <ul style="list-style-type: none"> • tall, thin jar (Alka-Seltzer bottle) • small marble • large marble • masking tape • ruler
5	Experiment: Water Container	<p>Your goal for this assignment is to compare the shape of water in different containers.</p> <p>Supply List</p> <ul style="list-style-type: none"> • 4 differently shaped clear containers • baby-food jar
6	Experiment: Types of Changes	<p>Your goal for this assignment is to compare physical and chemical changes using heat energy.</p> <p>Supply List</p> <ul style="list-style-type: none"> • candle in candle holder • large glass plate or pan • match
8	Assignment: Experiment: Conservation of Matter	<p>Your goals for this assignment are to make a prediction using prior knowledge and to test the law of conservation of matter.</p> <p>Supply List</p> <ul style="list-style-type: none"> • equal-arm balance • 2 baby-food jars with equal mass • 2 baby-food jar lids with equal mass • ice cube • dropper
13	Project: Globe	<p>Your goal for this assignment is to use a model to determine why the earth has seasons.</p> <p>Supply List</p> <ul style="list-style-type: none"> • globe with a tilted axis
15	Report: Famous Comets	<p>Your goal for this assignment is to research and write about a comet.</p> <p>Supply List: N/A</p>
17	Experiment: Water Evaporation	<p>Your goal for this assignment is to investigate the effect of water temperature on rate of evaporation.</p> <p>Supply List</p> <ul style="list-style-type: none"> • liquid measure • two identical pans • funnel
21	Special Project	<p>Special Project assignments are used by teachers to create their own projects if needed.</p>

SCIENCE 500 (2010): UNIT 10 - LOOK AHEAD

<i>Assignment Number</i>	<i>Assignment Title</i>	<i>Project Summary</i>
13	Special Project	Special Project assignments are used by teachers to create their own projects if needed.