



Switched-On

SCHOOLHOUSE® 2012 EDITION

Supply List

Science 400

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Please have a pencil, paper and access to a printer available for all projects by default.

UNIT 1: PLANTS

Assignment # and Title	Project Summary	Video Demo	Materials Needed
4. Project: Things Made of Wood	In this project you will think about objects that are made of wood.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A
5. Report: Read and Write	In this report you will learn about a fruit from another country.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> reference material
7. Report: Flowers as State Symbols	In this report you will learn about state flowers.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> reference material
8. Report: Flower Paragraph	In this report you will learn more about state flowers.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> reference material
12. Experiment: Celery	In this experiment you will learn why these strings are important.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> fresh celery stalk (stem) with leaves on top a glass of water red food coloring a knife
16. Special Project	Special Project assignments are used by teachers to create their own projects if needed.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A

UNIT 2: ANIMALS

Assignment # and Title	Project Summary	Video Demo	Materials Needed
3. Report: Types of Whales	In this report you will learn more about three types of whales.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> reference material
6. Report: Writing about Fish	In this report you will learn more about fish characteristics and behavior.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> reference material
7. Project: Observing Fish	In this project you will learn more about how fish swim.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> reference material
15. Report: Honeybee Habits	In this report you will learn more about the work and behavior of bees.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> reference material
19. Project: Animal Scrapbook	In this project you will practice sorting animals into different groups.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> pictures of animals glue construction paper scissors notebook or folder
21. Special Project	Special Project assignments are used by teachers to create their own projects if needed.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A

UNIT 3: MAN AND HIS ENVIRONMENT

Assignment # and Title	Project Summary	Video Demo	Materials Needed
2. Project: Your Environment	In this project you will take a closer look at your environment. When you have finished the drawing in this project, save it. You will want to look at it again when you study about human communities.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> drawing paper pencil or colored pencils
6. Project: Populations	In this project you will take a closer look at the populations in your environment.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> paper pencil
8. Project: Make a Pyramid	In this project you will create a population pyramid.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> printer pencil
9. Report: Rabbits in Australia	In this report you will learn how an ecosystem in Australia became unbalanced.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> reference material
12. Experiment: Still Water Life	In this experiment you will catch some plants and animals to observe. You should work with an adult on this experiment.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> one or more kitchen strainers (lengthen the handles by attaching them to long sticks or broom handles) at least 5 wide-mouthed jars hand magnifying glass cloth or netting string microscope (if available) reference material
14. Project: Human Communities	In this project you will write about the needs and structure of your community	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A
15. Report: Read and Write	In this report you will learn about the role of a honeybee in a community.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> reference material
16. Project: Terrarium or Diorama	In this project you will make your own desert community.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> a clean, empty two-liter plastic bottle (with the top cut off) one cup of gravel (tiny rocks) one-half cup of broken pieces charcoal two cups of sand one cup of potting soil desert plants, like cactus water
17. Report: Forest Community	In this report you will learn more about forest communities around the world.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> reference material
20. Project: Ask an Expert	In this project you will get expert advice on how to take care of soil.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> contact with your county's agricultural agent a small container of soil from your yard
21. Report: Endangered Species	In this report you will learn about one endangered animal.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> reference material
23. Report: How to Save Energy	In this report you will learn more about renewable energy and ways to conserve it.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> reference material
25. Report: Special Treasures	In this project you will learn more about a United States National park.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> reference material
27. Special Project	Special Project assignments are used by teachers to create their own projects if needed.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A

UNIT 4: MACHINES

Assignment # and Title	Project Summary	Video Demo	Materials Needed
2. Report: Galileo	A man named Galileo Galilei was born in Pisa, Italy, in the sixteenth century. He became the first real scientist of modern times. In this report you will learn more about this important man.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> reference material
3. Experiment: Gravity	You are going to complete an experiment on gravity and air friction.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> two or three pieces of newspaper marble a piece of paper a chair a partner
7. Experiment: Hammer and Nail	You are going to complete an experiment with simple machines to find out if you are stronger than a hammer.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> a large nail a hammer a short length of board or a large block of wood
8. Experiment: Seesaw	You are going to complete an experiment with simple machines to find out if the distance a load is from the fulcrum has anything to do with how easy it is to lift.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> a seesaw a friend who weighs about the same amount as you
10. Experiment: Inclined Plane	You are going to complete an experiment with simple machines to find out how much effort is saved by using an inclined plane.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> four textbooks (each one should be at least 3 inches thick) a toy truck or car a board about 1 meter long (should be wider than the toy truck/car) a spring scale
12. Experiment: Screw and Nail	You are going to complete an experiment with simple machines to find out which is stronger, a nail or a screw.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> two thin pieces of wood (less than 1 cm thick) two thicker pieces of wood a hammer a screwdriver
15. Experiment: Pulleys	You are going to complete an experiment with simple machines to find out which has a higher mechanical advantage, a fixed pulley or a block and tackle pulley.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> two pulleys a light rope about two meters long a two-kilogram weight a broomstick
19. Special Project	Special Project assignments are used by teachers to create their own projects if needed.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A

UNIT 5: ELECTRICITY AND MAGNETISM

Assignment # and Title	Project Summary	Video Demo	Materials Needed
2. Report: Thomas Edison	In this report you will learn more about Thomas Alva Edison.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> reference material
3. Experiment: Static Electricity	In this experiment you will "charge" objects and create static electricity.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> two balloons piece of woolen cloth string rubber comb or hard rubber rod
5. Project: Conductors	In this project, tell what kinds of materials are the best and the poorest conductors by labeling each material, in the provided list, as either a conductor or nonconductor.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A
6. Experiment: Wet Cell	In this experiment you will make your own electric cell. An adult may decide to discuss this experiment rather than have you perform it.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> three strips each of copper and zinc (15 x 3 cm) four lengths of covered copper wire, each about 50 cm long. a glass of vinegar a juicy lemon galvanometer sharp knife
7. Project: Electric Objects	In this project you will take a closer look at the electrical objects in your home.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A
9. Project: Fuses in Use	In this experiment you study and write about car fuses.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> permission to look for the fuse block of a car with a flashlight.
12. Experiment: Use a Magnet	In this experiment you will test different objects to see which ones are attracted to a magnet and which ones are not.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> one magnet one small piece of paper two paper clips one penny two rubber bands one nickel five pins one tin can one piece of chalk one small plastic cup two bits of wood two sewing needles
13. Experiment: Make a Magnet	In this experiment you will turn a nail into a magnet.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> some iron filings a large iron nail a bar magnet
14. Experiment: Magnet Poles	In this experiment you will use iron filings to "see" the magnetic field around the poles.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> bar magnet iron filings one sheet of paper
15. Experiment: Testing a Magnet	In this experiment you will use a compass to find the north pole of a magnet.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> a compass about 40 cm of heavy string a bar magnet a stack of books meter stick
16. Experiment: Generate Electricity	In this experiment you will use a magnet to make an electrical current.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> a mailing tube or the cardboard tube from a roll of paper towels a bar magnet bell wire a galvanometer
17. Experiment: Electromagnet	In this experiment you will use electricity to turn a nail into an electromagnet.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> a large iron nail a knife switch some bell wire small metal objects a dry cell
18. Report: Explorers	The earth also has a North Pole and a South Pole. In this report you will learn about the men who discovered these areas.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> reference material
20. Special Project	Special Project assignments are used by teachers to create their own projects if needed.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A

UNIT 6: WATER AND MATTER

Assignment # and Title	Project Summary	Video Demo	Materials Needed
2. Experiment: Ice	In this experiment you will test what you know about this property of ice.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> a plastic bowl large enough to hold 3-4 cups of water 2-3 ice cubes
3. Experiment: Ice Volume	In this experiment you will test what you know about the volume of ice.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> 1 small paper cup crushed ice
5. Experiment: Potato	In this experiment you will measure the water in a potato.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> 1 raw potato a scale for weigh ounces or grams 1 heavy duty plastic knife a paper towel
7. Experiment: Forming Dew	In this experiment you will see water change state.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> 1 small tin can ice
9. Experiment: Solubility	In this experiment you will test the solubility of salt, sugar, sand, and oil.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> 4 plastic glasses (1 for each test material) 1 teaspoon of salt 1 teaspoon of sugar 1 teaspoon of sand 1 teaspoon of salad or cooking oil a plastic spoon or wooden stick for stirring
13. Experiment: Molecules	In this experiments you will Compare the strength of smell of perfume and ammonia	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> 1 bottle of strong-smelling perfume 1 bottle of household ammonia (only a small amount is needed)
16. Special Project	Special Project assignments are used by teachers to create their own projects if needed.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A

UNIT 7: WEATHER

Assignment # and Title	Project Summary	Video Demo	Materials Needed
2. Experiment: Air and Space	You have learned that all living things need air to live. Air is all around us. Does it take up space? In this experiment you will answer this question.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> a water glass a pan full of water
4. Experiment: Temperature	In this experiment you will test the heat absorption of different materials.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> sheet of black paper window sunlight shining through the window
6. Experiment: Pressure	In this experiment you will see the strength of air pressure.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> drinking glass full of water piece of cardboard large enough to cover the glass sink or large basin to catch the water after the experiment
10. Report: Hurricanes	In this report you will learn about these dangerous storms.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> reference material
13. Project: Thermometers	In this project you will learn more about the two most common thermometers.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> Fahrenheit thermometer Celsius thermometer
15. Special Project	Special Project assignments are used by teachers to create their own projects if needed.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A

UNIT 8: OUR SOLAR SYSTEM AND THE UNIVERSE

Assignment # and Title	Project Summary	Video Demo	Materials Needed
3. Report: Astronomy Instruments	In this report you will write about one of the following: the telescope, spectroscope, or radio telescope.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> reference material
4. Essay: Astronomy	In this project you will write about the importance of the mind in astronomy.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> reference material
7. Essay: Ancient People	In this project you will explain the reason behind ancient beliefs about the sun.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> reference material
9. Report: Isaac Newton	In this project you will write about Isaac Newton.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> reference material
12. Experiment: Moon Phases	In this experiment you will use a model to see how the moon's orbit causes these phase changes.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> flashlight rubber ball (about 6 inches in diameter) large white sheet of paper
15. Essay: Astrology	In this essay you will explain why astrology should not be studied.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> reference material
18. Special Project	Special Project assignments are used by teachers to create their own projects if needed.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A

UNIT 9: THE PLANET EARTH

Assignment # and Title	Project Summary	Video Demo	Materials Needed
2. Experiment: Condensation	In this experiment you will watch water vapor change state.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> a drinking glass some ice cubes some flavored beverage a clean cloth or tissue
6. Essay: Psalm 147	In this essay you will read a Psalm and discuss its meaning.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> bible
8. Experiment: Currents	In this experiment you will use differences in water temperature to create a current.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> a glass 2 ice cubes some hot water a paper towel
11. Experiment: Shadows	In this experiment you will see how shadows helped scientists and explorers discover that the earth was not flat.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> a ball (3 to 5 inches) a light source a disk (3 to 5 inches)
15. Special Project	Special Project assignments are used by teachers to create their own projects if needed.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A

UNIT 10: UNDERSTANDING GOD'S WONDERFUL CREATION

Assignment # and Title	Project Summary	Video Demo	Materials Needed
7. Project: Weather Scrapbook	In this project you will review what you know about the forces of weather.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> • magazines and newspapers of interesting pictures and articles • scissors • scrapbook and materials
10. Project: Thomas Alva Edison	In this project you will review important facts about Edison.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> • reference material
15. Report: Passenger Pigeon	In this report you will learn about an extinct animal called the Passenger Pigeon.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> • reference material
17. Special Project	Special Project assignments are used by teachers to create their own projects if needed.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A