



# Switched-On

SCHOOLHOUSE® 2012 EDITION

## Supply List

Science 300

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

**UNIT 1: YOU GROW AND CHANGE**

Assignment # and Title	Project Summary	Video Demo	Materials Needed
4. Experiment: Breathing Patterns	In this experiment, you will watch your breathing patterns before and after exercise.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>a clock with a second hand</li> </ul>
5. Experiment: Your Lungs	In this experiment, you will see how your lungs are like a sponge.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>a sponge</li> </ul>
8. Experiment: Taste Test	In this experiment you will see how the salt came right through the paper, but most of the cocoa was held back. Some things pass easily through paper, but others are held back.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>cocoa</li> <li>salt</li> <li>teaspoon</li> <li>a paper towel</li> <li>a small drinking glass</li> <li>a large drinking glass half full of water</li> </ul>
11. Experiment: Taking Your Pulse	In this experiment you will find out how fast your heart is beating every minute.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>a clock with a second hand</li> </ul>
12. Project: Bone Numbers	In this project you will compare the bones in your hand and foot.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A
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: PLANTS**

Assignment # and Title	Project Summary	Video Demo	Materials Needed
2. Experiment: Root Hairs	In this experiment, you will look at the root hairs on a plant.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>a small plant</li> <li>magnifying glass</li> </ul>
3. Experiment: Study a Stem	In this experiment, you will see how stems carry water and nutrients to the rest of the plant.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>a small jar with water</li> <li>food coloring</li> <li>celery stem</li> <li>magnifying glass</li> </ul>
6. Experiment: Grow Some Plants	In this experiment, you will see how important sunlight is to a plant.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>two small potted plants or been seedlings</li> <li>a box</li> <li>a sunny window</li> </ul>
9. Experiment: Watch Bean Seeds Grow	In this experiment, you will watch a plant grow from a seed.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>a jar with water</li> <li>wet paper towel</li> <li>5 paper cups</li> <li>15 lima beans</li> <li>potting soil</li> </ul>
10. Experiment: Plant a Piece of Potato	In this experiment you will grow a potato plant from a cutting.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>a white potato with eyes</li> <li>pot of soil</li> <li>a knife</li> <li>water</li> </ul>
11. Experiment: Bean Plant	In this experiment, you will watch a bean plant grow.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>a glass jar</li> <li>wet paper towel</li> <li>felt marker</li> <li>3 lima beans</li> <li>a centimeter ruler</li> </ul>
13. 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: ANIMALS: GROWTH AND CHANGE**

Assignment # and Title	Project Summary	Video Demo	Materials Needed
2. Experiment: Hourly Temperature Changes	In this experiment you will see how temperature changes with time.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>clock</li> <li>thermometer</li> </ul>
3. Experiment: Heat Energy Comparison	In this experiment you will compare the energy needed to heat water and soil.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>two pint glass jars or bowls</li> <li>ruler</li> <li>two thermometers</li> <li>water</li> <li>soil</li> </ul>
4. Project: Desert Locations	In this project you will identify deserts around the world.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>encyclopedia</li> </ul>
8. Project: Vertebrate Chart	In this project you will practice grouping vertebrates into different groups.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A
10. Project: Sort Birds By Type	In this project you will practice grouping birds by what they like to eat.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>pictures of birds</li> </ul>
13. Project: Sow Bug Environment	In this project you will watch how a sow bug behaves in its environment.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>a gallon jar with a lid that fits it</li> <li>moist soil</li> <li>potato</li> <li>3-4 sow bugs</li> </ul>
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 4: YOU ARE WHAT YOU EAT**

Assignment # and Title	Project Summary	Video Demo	Materials Needed
5. Project: Breakfast Chart	In this project you will keep track of the foods you eat for breakfast.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A
6. Project: Lunch Chart	In this project you will keep track of the foods you eat for lunch.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A
7. Project: Dinner Chart	In this project you will keep track of the foods you eat for dinner.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A
8. Project: Chart Totals	In this project you will look at the types of food you eat during an entire day.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A
13. 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: PROPERTIES OF MATTER**

Assignment # and Title	Project Summary	Video Demo	Materials Needed
2. Experiment: Be a Chemist	In this experiment you will study matter like a chemist.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>a pan of water</li> <li>a cup of sand</li> <li>a stick</li> </ul>
4. Experiment: Volume	In this experiment, you will find the volume of different objects.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>two different sizes of books</li> <li>calculator</li> <li>pencil</li> <li>paper</li> <li>metric ruler with millimeter markings</li> </ul>
5. Experiment: Think about Mass	In this experiment you will study the mass of different objects.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>a book</li> <li>a brick</li> </ul>
6. Experiment: Is Air Matter?	In this experiment you will see if air has mass.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>2 large balloons of the same size</li> <li>wire coat hanger</li> <li>door</li> </ul>
7. Project: Matter	In this project you will list 15 different kinds of matter.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A
8. Experiment: Is Water Matter?	In this experiment you will see if water is matter and if it has mass.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>small diet scale</li> <li>a cup</li> <li>water</li> </ul>
11. Experiment: Mass Measurement	In this experiment you will see how physical change affects mass.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>food scale, reading in grams</li> <li>baby food jar</li> <li>ice cube</li> </ul>
12. Experiment: Melting Ice Cubes	In this experiment you will see how temperature can change the state of matter.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>5 paper cups</li> <li>5 ice cubes</li> <li>refrigerator</li> <li>cool water</li> <li>hot water</li> <li>clock or watch</li> </ul>
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 6: SOUND AND YOU**

Assignment # and Title	Project Summary	Video Demo	Materials Needed
2. Experiment: Vibrations	In this experiment you will use dry cereal to study sound vibrations.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>drum</li> <li>pencil</li> <li>dry cereal</li> </ul>
6. Experiment: Sound Patterns	In this experiment you will compare how well sound travels through different objects.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>a partner</li> <li>a ruler</li> <li>water in a large glass</li> <li>stones</li> </ul>
7. Read and Write About Sound	In this report you will use books to learn more about sound.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>a book about sounds</li> </ul>
8. Experiment: High and Low Sounds	In this experiment you will listen to the sounds made by different vibration speeds.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>a strong box, open on one side</li> <li>rubber bands (different sizes)</li> </ul>
9. Experiment: Loud or Soft?	In this experiment you will use cereal to "see" loud and soft sound vibrations.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>coffee can with plastic lid</li> <li>dry cereal</li> </ul>
12. Experiment: Think About Hearing	In this experiment you will test how well your ears hear sound.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>a clock that ticks</li> <li>a yardstick</li> <li>a large piece of paper</li> </ul>
13. Report: How Animals Hear	In this report you will learn how animal ears hear sound.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>reference materials</li> </ul>
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 7: TIME AND SEASONS**

Assignment # and Title	Project Summary	Video Demo	Materials Needed
2. Experiment: The Earth	In this experiment you will use a globe to see how the earth's rotation affects daylight.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>• bright flashlight</li> <li>• paper towel tube</li> <li>• globe</li> </ul> <ul style="list-style-type: none"> <li>• tape</li> <li>• a dark room</li> </ul>
3. Experiment: Night	In this experiment you will use a lamp to see how daytime and nighttime are different around the world.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>• lamp</li> </ul> <ul style="list-style-type: none"> <li>• dark room</li> </ul>
4. Experiment: The Earth's Rotation	In this experiment you will use a model to learn more about the earth's axis.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>• clay</li> <li>• two pins</li> </ul> <ul style="list-style-type: none"> <li>• pencil</li> </ul>
7. Experiment: Different Times	In this experiment you will use a globe to see how time is different around the world.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>• flashlight</li> <li>• globe</li> </ul> <ul style="list-style-type: none"> <li>• chalk</li> <li>• a partner</li> </ul>
8. Report: Months	In this report you will learn more about months of the year.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>• reference material</li> </ul>
12. 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: ROCKS AND THEIR CHANGE**

Assignment # and Title	Project Summary	Video Demo	Materials Needed
4. Experiment: Bubbling Grains of Rock	In this experiment you will use acid to make limestone fizz and bubble. <b>This experiment uses a knife. Ask an adult to help you.</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>• a piece of limestone</li> <li>• a pocket knife</li> </ul> <ul style="list-style-type: none"> <li>• vinegar</li> <li>• an eye dropper</li> </ul>
10. Report: Mount Rushmore	In this report you will learn about the rocks of Mount Rushmore.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>• research material</li> </ul>
13. 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: HEAT ENERGY**

Assignment # and Title	Project Summary	Video Demo	Materials Needed
2. Experiment: Feeling Friction	In this experiment you will make heat energy by rubbing two surfaces together.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>wood</li> <li>sandpaper</li> <li>a nail</li> <li>a hammer</li> </ul>
3. Experiment: Oxygen and Fire	In this experiment you will compare how well fire burns with different amounts of oxygen. <b>This experiment uses matches. Ask an adult to help you.</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>3 candles in holders</li> <li>a quart sized glass jar</li> <li>a pint size glass jar</li> <li>matches</li> <li>clock or timer</li> </ul>
5. Experiment: Static Electricity	In this experiment you will make one kind of electricity.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>a small flat box</li> <li>plastic food wrap</li> <li>tissue paper</li> </ul>
8. Experiment: Water Molecules	In this experiment you will compare the movement of molecules in hot and cold water.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>2 clear glasses</li> <li>food coloring</li> <li>hot water</li> <li>dropper</li> <li>cold water</li> <li>clock or timer</li> </ul>
10. Experiment: Changing Liquid to Gas	In this experiment, you will use heat to change the state of water. <b>This experiment uses the stove. Ask an adult to help you.</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>1c. measuring cup</li> <li>water</li> <li>a pan or kettle</li> <li>clock or timer</li> <li>pot holder</li> </ul>
14. 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: REVIEW**

Assignment # and Title	Project Summary	Video Demo	Materials Needed
7. Project: Rock Collection	In this project you will study rocks around your home.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>reference materials</li> </ul>
10. Experiment: How Sound Travels	In this experiment you will hear a sound through a solid object.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>string</li> <li>chair</li> <li>coat hanger</li> </ul>
11. Experiment: Temperature Comparisons	In this experiment, you will see how color affects how much an object is heated by the sun.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> <li>two small cardboard boxes of the same size</li> <li>black paper</li> <li>white paper</li> <li>two thermometers</li> <li>glue</li> </ul>
13. 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	<ul style="list-style-type: none"> <li>N/A</li> </ul>