



2019-2020 Science Supply List

Science 400

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UNIT 1: PLANTS

| Assignment | Summary | Video Demo | Supplies |
|----------------------------------|--|-------------------|--|
| *Project: Things Made of Wood | In this project, you will think about other objects that are made of wood. | No | <ul style="list-style-type: none"> things made of wood |
| *Report: Read and Write | In this report, you will learn about a fruit from another country. | No | <ul style="list-style-type: none"> research resources |
| Report: Flowers as State Symbols | In this report, you will learn about state flowers. | No | <ul style="list-style-type: none"> research resources |
| *Report: Flower Paragraph | In this report, you will learn more about state flowers. | No | <ul style="list-style-type: none"> research resources |
| Experiment: Celery | In this experiment, you will learn why these strings are important. | Yes | <ul style="list-style-type: none"> fresh celery stalk (stem) with leaves on top a glass of water |
| *Special Project | Use this Special Project template to create your own assignment for this unit. | N/A | N/A |

UNIT 2: ANIMALS

| Assignment | Summary | Video Demo | Supplies |
|-----------------------------|--|-------------------|---|
| Report: Types of Whales | In this report, you will learn more about three types of whales. | No | <ul style="list-style-type: none"> research resources |
| *Report: Writing about Fish | In this report, you will learn more about fish characteristics and behavior. | No | <ul style="list-style-type: none"> research resources |
| *Project: Observing Fish | In this project, you will learn more about how fish swim. | No | <ul style="list-style-type: none"> fish in an aquarium |
| Report: Honeybee Habits | In this report, you will learn more about the work and behavior of bees. | No | <ul style="list-style-type: none"> research resources |
| *Project: Animal Scrapbook | In this project, you will practice sorting animals into different groups. | No | <ul style="list-style-type: none"> pictures of animals construction pape2 glue |
| *Special Project | Use this Special Project template to create your own assignment for this unit. | N/A | N/A |

UNIT 3: MAN, AND HIS ENVIRONMENT

| Assignment | Summary | Video Demo | Supplies |
|-----------------------------------|--|-------------------|---|
| *Project: Your Environment | In this project, you will take a closer look at your environment. | No | <ul style="list-style-type: none"> drawing paper |
| *Project: Populations | In this project, you will take a closer look at the populations in your environment. | No | <ul style="list-style-type: none"> paper |
| *Project: Make a Pyramid | In this project, you will create a population pyramid. | No | <ul style="list-style-type: none"> access to a printer paper |
| *Report: Rabbits in Australia | In this report, you will create a population pyramid. | No | <ul style="list-style-type: none"> research resources |
| *Experiment: Still Water Life | In this experiment, you will create a population pyramid. | Yes | <ul style="list-style-type: none"> one or more kitchen strainers at least 5 wide-mouthed jars |
| Project: Human Communities | Write about the needs and structure of your community | No | N/A |
| *Report: Read and Write | In this report you will learn about the role of a honeybee in a community. | No | <ul style="list-style-type: none"> research resources |
| *Project: Terrarium or Diorama | In this project, you will make your own desert community. | No | <ul style="list-style-type: none"> a clean, empty two-liter plastic bottle (with the top cut off) one cup of gravel one-half cup of broken pieces charcoal two cups of sand |
| *Report: Forest Community | In this report, you will learn more about forest communities around the world. | No | <ul style="list-style-type: none"> research resources |
| *Project: Ask an Expert | In this project, you will learn more about forest communities around the world. | No | <ul style="list-style-type: none"> contact with the agricultural agent in your county |
| *Report: Endangered Species | In this report, you will learn about one endangered animal. | No | <ul style="list-style-type: none"> research resources |
| *Report: How To Save Energy | In this report, you will learn more about renewable energy and ways to conserve it. | No | <ul style="list-style-type: none"> research resources |
| *Report: Special Treasures | In this report, you will learn more about a United States National park. | 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: MACHINES

| Assignment | Summary | Video Demo | Supplies |
|-----------------------------|---|------------|---|
| *Report: Galileo | In this report, you will learn more about this important man. | No | <ul style="list-style-type: none"> research resources |
| *Experiment: Gravity | In this experiment, you are going to examine how air friction affects gravity | No | <ul style="list-style-type: none"> two or three pieces of newspaper a marble |
| Experiment: Hammer and Nail | In this experiment, you are going to compare work with and without use of a simple machine | Yes | <ul style="list-style-type: none"> a large nail a hammer |
| *Experiment: Seesaw | In this experiment, you are going to examine how fulcrum location affects amount of work needed for a lever | No | <ul style="list-style-type: none"> a seesaw |
| *Experiment: Inclined Plane | In this experiment, you are going to compare work with and without use of a simple machine | Yes | <ul style="list-style-type: none"> four textbooks (3 inches thick) a toy truck or car a spring scale |
| *Experiment: Screw and Nail | In this experiment, you are going to compare the strength of a nail and a screw | Yes | <ul style="list-style-type: none"> two thin pieces of wood (less than 1 cm thick) a hammer |
| *Experiment: Pulleys | In this experiment, you are going to compare the mechanical advantage of two pulley types | Yes | <ul style="list-style-type: none"> two pulleys a light rope about two meters long |
| *Special Project | Use this Special Project template to create your own assignment for this unit. | N/A | N/A |

UNIT 5: ELECTRICITY AND MAGNETISM

| Assignment | Summary | Video Demo | Supplies |
|--------------------------------|--|------------|---|
| Report: Thomas Edison | In this report, you will learn more about Thomas Edison. | No | <ul style="list-style-type: none"> research resources |
| Experiment: Static Electricity | In this experiment, you will "charge" objects and create static electricity. | No | <ul style="list-style-type: none"> string two balloons piece of woolen cloth |

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| Project: Conductors | In this project, you will classify items as conductors or nonconductors | No | <ul style="list-style-type: none"> • metal spoon • screwdriver handle • screwdriver blade • chalkboard eraser • glass dish • tin can • rubber ball • paper • paper clip • wood |
| *Experiment: Wet Cell | In this experiment, you will make your own electric cell. | Yes | <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. |
| *Project: Electric Objects | In this project you will take a closer look at the electrical objects in your home. | No | <ul style="list-style-type: none"> • various object around your house |
| Project: Fuses In Use | In this project, you will study and write about car fuses. | No | <ul style="list-style-type: none"> • access to a car |
| 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. | No | <ul style="list-style-type: none"> • one magnet • one small piece of paper • two paper clips • one penny • two rubber bands • one nickel |
| Experiment: Make A Magnet | In this experiment you will turn a nail into a magnet. | Yes | <ul style="list-style-type: none"> • some iron filings • a large iron nail |
| *Experiment: Magnet Poles | In this experiment you will use iron fillings to "see" the magnetic field around the poles. | Yes | <ul style="list-style-type: none"> • bar magnet • iron filings |
| *Experiment: Testing A Magnet | In this experiment you will use a compass to find the north pole of a magnet. | Yes | <ul style="list-style-type: none"> • a compass • about 40 cm of heavy string • a bar magnet |
| *Experiment: Generate Electricity | In this experiment you will use a magnet to make an electrical current. | Yes | <ul style="list-style-type: none"> • a galvanometer • a mailing tube or the cardboard tube from a roll of paper towels • a bar magnet |
| *Experiment: Electromagnet | In this experiment you will use electricity to turn a nail into an electromagnet. | Yes | <ul style="list-style-type: none"> • a large iron nail • a knife switch |

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| | | | <ul style="list-style-type: none"> • some bell wire |
| *Report: Explorers | In this report you will learn about the people who discovered these areas. | 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 6: WATER AND MATTER

| Assignment | Summary | Video Demo | Supplies |
|--------------------------|--|------------|---|
| Experiment: Ice | In this experiment you will test what you know about this property of ice. | Yes | <ul style="list-style-type: none"> • a plastic bowl large enough to hold 3 or 4 cups of water • 2 or 3 ice cubes (these must be cubes or chunks of ice for floating) |
| *Experiment: Ice Volume | In this experiment you will test what you know about the volume of ice. | Yes | <ul style="list-style-type: none"> • 1 small paper cup • enough crushed ice to fill the cup |
| *Experiment: Potato | In this experiment you will measure the water in a potato. | Yes | <ul style="list-style-type: none"> • 1 raw potato • 1 scale (to weigh ounces or grams) • 1 heavy-duty plastic knife • a paper towel |
| *Experiment: Forming Dew | In this experiment you will see water change state. | Yes | <ul style="list-style-type: none"> • 1 small tin can, fruit juice type (be sure there are no sharp edges) • enough ice to fill the can |
| Experiment: Solubility | In this experiment you will test the solubility of salt, sugar, sand, and oil. | Yes | <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 |

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| *Experiment: Molecules | In this experiment you will smell different odors. | No | <ul style="list-style-type: none"> 1 bottle of strong-smelling perfume 1 bottle of household ammonia (only a small amount is needed) A room about 12 x 12 in dimensions. An adult to help perform experiment. A clock with a second hand. A couple of sheets of paper. |
| *Special Project | Use this Special Project template to create your own assignment for this unit. | N/A | N/A |

UNIT 7: WEATHER

| Assignment | Summary | Video Demo | Supplies |
|----------------------------|--|------------|--|
| *Experiment: Air and Space | In this experiment you will answer this question. | Yes | <ul style="list-style-type: none"> a water glass |
| Experiment: Temperature | In this experiment you will test the heat absorption of different materials. | No | <ul style="list-style-type: none"> sheet of black paper window |
| Experiment: Pressure | In this experiment you will see the strength of air pressure. | Yes | <ul style="list-style-type: none"> drinking glass full of water piece of cardboard large enough to cover the glass |
| *Report: Hurricanes | In this report you will learn more about these dangerous storms. | No | <ul style="list-style-type: none"> research resources |
| *Project: Thermometers | In this project you will learn more about the two most common thermometers. | 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 8: OUR SOLAR SYSTEM AND THE UNIVERSE

| Assignment | Summary | Video Demo | Supplies |
|-------------------------------|--|------------|--|
| Report: Astronomy Instruments | In this report you will learn more about one type of instrument. | No | <ul style="list-style-type: none"> research resources |
| *Essay: Astronomy | In this report you will think about an astronomer's most important instrument... their mind. | No | N/A |
| *Essay: Ancient People | In this essay you will write about ancient beliefs. | No | N/A |
| *Report: Isaac Newton | In this report you will learn more about this famous English scientist. | No | <ul style="list-style-type: none"> research resources |

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|-------------------------|--|-----|---|
| Experiment: Moon Phases | In this experiment you will use a model to show the moon's phase changes. | No | <ul style="list-style-type: none"> • 8 Oreo cookies • paper plate |
| *Essay: Astrology | In this essay you will explain why astrology should not be studied. | No | N/A |
| *Special Project | Use this Special Project template to create your own assignment for this unit. | N/A | N/A |

UNIT 9: THE PLANET EARTH

| Assignment | Summary | Video Demo | Supplies |
|--------------------------|---|------------|--|
| Experiment: Condensation | In this experiment you will watch water vapor change state. | Yes | <ul style="list-style-type: none"> • a drinking glass • some ice cubes |
| *Essay: Psalm 147 | In this essay you will read a Psalm and discuss its meaning. | No | N/A |
| *Experiment: Currents | In this experiment you will use differences in water temperature to create a current. | Yes | <ul style="list-style-type: none"> • a glass • 2 ice cubes |
| Experiment: Shadows | In this experiment you will see how shadows helped scientists and explorers discover that the earth was not flat. | Yes | <ul style="list-style-type: none"> • a ball (3 to 5 inches) • a light source |
| *Special Project | Use this Special Project template to create your own assignment for this unit. | N/A | N/A |

UNIT 10: UNDERSTANDING GOD’S WONDERFUL CREATION

| Assignment | Summary | Video Demo | Supplies |
|------------------------------|--|-------------------|--|
| Project: Weather Scrapbook | In this project you will review what you know about the forces of weather. | No | <ul style="list-style-type: none"> • magazines • newspaper |
| *Project: Thomas Alva Edison | In this project you will review important facts about Edison. | No | <ul style="list-style-type: none"> • the news story you wrote in unit 5 |
| *Report: Passenger Pigeon | In this report you will learn about an extinct animal called the Passenger Pigeon. | 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 |

* indicates an alternative assignment