

Materials That Might Take Some Time to Acquire

- ✎ **For Section 1 (challenge lesson):** Some ink (Stamp pad of ink would be ideal, but you can use fingerprint or watercolor paint and a brush as well.)
- ✎ **For Section 2:** Two distinctly different flowers, such as a daisy and geranium (If you are doing this during a time of year when flowers are not in bloom, you can usually get flowers fairly cheaply from a supermarket. The flowers can be of any variety, as long as they are very different from one another in terms of the number of petals, whether or not there are stalks at the center of the flower, etc. If you simply don't have the time or money, pictures will work, as long as they show the flowers in some detail.)
- ✎ **For Section 2:** A sunflower seed in its shell
- ✎ **For Section 2:** A peanut with the shell intact
- ✎ **For Section 2:** Hydrogen peroxide (Drugstores carry it.)
- ✎ **For Section 2:** Active dry yeast (Grocery stores sell it for making bread.)
- ✎ **For Section 2 (challenge lesson):** Weak reading glasses (A power of 1.50 is ideal.)
- ✎ **For Section 3:** Root Kill (It is found in the plumbing section of a hardware store. The ingredients list should have "copper sulfate" or "copper sulfate pentahydrate" as the main ingredient. If you can look inside the package, it should be full of blue crystals.)
- ✎ **For Section 5:** A flower with petals that are light in color (White would be ideal, but any light color will do. A flower bought from a store will work or pick one from outside if you can find one.)
- ✎ **For Section 5:** A string of Christmas tree lights (It probably won't be the Christmas season when you cover this section.)

Here is a list of everything you need to do the experiments, separated by the section that contains the lesson. Each section is six weeks' worth of lessons if you are scheduling a year for the course, so making sure you have everything for a given section ensures that you have six weeks of science supplies ready. Note that the things listed above are also contained in the list below:

Supplies for the First Section (Lessons 1 – 15)

- ✎ A square or rectangle of cardboard that is larger than a paper plate
- ✎ Five paper plates
- ✎ A nail
- ✎ Scissors
- ✎ Crayons, colored pencils, or markers
- ✎ Modeling clay, like Play-Doh
- ✎ Two metersticks, yardsticks, or thin pieces of wood
- ✎ Two blank sheets of paper
- ✎ A Bible
- ✎ A fresh chicken drumstick (uncooked)
- ✎ A knife
- ✎ A cutting board
- ✎ A pushpin
- ✎ A pen
- ✎ Paper towels
- ✎ A fresh chicken wing (uncooked)

- ✎ A magnifying glass
- ✎ A mirror
- ✎ Water
- ✎ Flour
- ✎ Cream of tartar
- ✎ Vegetable oil
- ✎ Salt
- ✎ A large bowl
- ✎ A mixing spoon
- ✎ A saucepan
- ✎ A stove
- ✎ Glue (A glue stick works best, but any glue will do.)
- ✎ Two coffee filters
- ✎ A funnel
- ✎ A handful of dirt
- ✎ A pitcher or large glass that has a pouring spout on it
- ✎ Two small glasses (like juice glasses)
- ✎ A window
- ✎ Ice (If your freezer makes crushed ice, that's what you want.)

If your freezer can't make crushed ice, you need the following three items:

- ✎ Ziploc bag
- ✎ Hammer
- ✎ Cutting board
- ✎ A tennis ball you can ruin
- ✎ Three slices of bread
- ✎ An old sock that you aren't going to use anymore (the longer, the better)
- ✎ A gallon-sized Ziploc bag
- ✎ White vinegar
- ✎ A ½-cup measuring cup
- ✎ Some nylon stockings that you can cut up
- ✎ A sink
- ✎ A camera (optional and only for those who do the "older" and "oldest" student assignments)
- ✎ Some ink (Stamp pad of ink would be ideal, but you can use fingerpaint or watercolor paint and a brush as well.)

Supplies for the Second Section (Lessons 16 – 30)

- ✎ Six noodles
- ✎ Vanilla
- ✎ Two dinner plates
- ✎ A paper napkin
- ✎ Paper towels
- ✎ Two bowls that are big enough to cover the dinner plates when turned upside down
- ✎ A measuring tablespoon
- ✎ A pan for boiling the noodles
- ✎ A strainer for the noodles
- ✎ A drinking glass
- ✎ Water

- ✎ A small lump of charcoal
- ✎ A pencil “lead” (The easiest thing to do is get a piece of “lead” from a mechanical pencil. However, you can whittle down a pencil to get some of the “lead.” The piece only needs to be about 2 centimeters – just under an inch – long.)
- ✎ A candle that can stand on its own or is in a holder
- ✎ A metal pie pan or other metal container that is bigger than the candle
- ✎ Metal tweezers
- ✎ A hammer
- ✎ Some paper
- ✎ A stove
- ✎ Matches or something else you can use to light a candle
- ✎ A winter glove
- ✎ A sink with running water
- ✎ Two rather different flowers, such as a daisy and geranium (If you are doing this during a time of year when flowers are not in bloom, you can usually get flowers fairly cheaply in a supermarket. The flowers can be of any variety, as long as they are very different from one another in terms of the number of petals, whether or not there are stalks at the center of the flower, etc. If you simply don’t have the time or money, pictures will work, as long as they show the flower in some detail.)
- ✎ A dried bean
- ✎ A sunflower seed in its shell
- ✎ A peanut with the shell intact
- ✎ A pair of pliers
- ✎ A stopwatch or timer
- ✎ Two shiny pennies (They should be really clean and shiny. If you can’t find any shiny pennies, use a hard toothbrush and tomato ketchup to scrub them to the point where they are shiny.)
- ✎ White vinegar
- ✎ Salt
- ✎ Thread
- ✎ Scissors
- ✎ Tape
- ✎ Hydrogen peroxide (Drugstores carry it.)
- ✎ Two ½-liter plastic bottles (like the kind bottled water comes in)
- ✎ Active dry yeast (Grocery stores sell it for making bread.)
- ✎ Aluminum foil
- ✎ A ½-cup measuring cup
- ✎ A ¼-cup measuring cup
- ✎ A 1-cup measuring cup
- ✎ A ¼-teaspoon measuring spoon
- ✎ A funnel
- ✎ A small glass
- ✎ A flashlight that uses two batteries (It is best to use a flashlight with a single bulb. Flashlights with several LED lights will not give good results.)
- ✎ Two white pieces of paper
- ✎ Two Styrofoam cups (One needs to be large.)
- ✎ Flour
- ✎ A measuring tablespoon
- ✎ Kitchen tongs

- ✎ A hand-held hair dryer.
- ✎ String
- ✎ Two washers or nuts
- ✎ Two cardboard tubes from two rolls of paper towels
- ✎ A flat piece of cardboard that is at least 20 centimeters by 20 centimeters (8 inches by 8 inches)
- ✎ A flat board that is at least a meter (39 inches) long
- ✎ A marble
- ✎ Two large books
- ✎ Two ½-liter bottles, like the kind water comes in
- ✎ A large glass
- ✎ Food coloring
- ✎ A spoon
- ✎ A large pot for heating water
- ✎ Weak reading glasses (A power of 1.50 is ideal.)
- ✎ A meterstick or yardstick

Supplies for the Third Section (Lessons 31 – 45)

- ✎ A flashlight that has a face which is at least 1.5 inches across
- ✎ A magnifying glass that is larger than the flashlight's face
- ✎ A baseball or some other hand-sized ball that is white or at least brightly colored
- ✎ Black construction paper
- ✎ Scissors
- ✎ Clear tape (like cellophane tape)
- ✎ A blank sheet of white paper
- ✎ A thick piece of cardboard or a table to which your parents will allow you to tape three pieces of paper.
- ✎ Three blank sheets of paper
- ✎ A pencil
- ✎ String
- ✎ Cellophane tape
- ✎ A ruler
- ✎ A ball that is about the size of a baseball or tennis ball
- ✎ A marker that can be used to make a mark on the ball
- ✎ A rubber band that can fit around the ball and still be stretched
- ✎ Vegetable oil
- ✎ Water
- ✎ Salt in a saltshaker
- ✎ Two tall glasses that you can see through
- ✎ Apple cider vinegar (You can use clear vinegar if you like, but the experiment will be slightly more disgusting as a result.)
- ✎ Water
- ✎ Antacid tablets (Any brand will do. Unflavored tablets would be ideal, but they are hard to find.)
- ✎ An aluminum pie pan (or a shallow dish that will not break when repeatedly hit by a hammer)
- ✎ Paper towels
- ✎ A hammer
- ✎ Three small glasses

- 👉 Two spoons for stirring
- 👉 A ¼-cup measuring cup
- 👉 Some newspapers or old towels
- 👉 A large bowl
- 👉 A measuring glass that can measure at least 2 cups
- 👉 Water
- 👉 A stopwatch
- 👉 The phone numbers or E-MAIL addresses of your pastor and at least three other adults in your church. It is best to contact people who are knowledgeable about the Bible and matters that relate to the creation account as given in the book of Genesis.
- 👉 Root Kill (It is found in the plumbing section of a hardware store. The ingredients list should have “copper sulfate” or “copper sulfate pentahydrate” as the main ingredient. If you can look inside the package, it should be full of blue crystals.)
- 👉 Steel wool
- 👉 A measuring teaspoon
- 👉 A measuring cup
- 👉 A spoon for stirring
- 👉 Blue food coloring (any dark color will work)
- 👉 Three straws (Two of them need to be able to bend near one end.)
- 👉 **Wooden Matches**
- 👉 **A plastic, ½-liter bottle with a lid, like the kind water comes in**
- 👉 **A coin that has an easy-to-recognize “heads” side and an easy-to-recognize “tails” side**
- 👉 **Two candles, one of which needs to be able to stand on its own or be put in a holder**
- 👉 **Matches or something else to light the candles**
- 👉 **Vinegar (any kind)**
- 👉 **Baking soda**
- 👉 **A spoon for stirring**
- 👉 **A counter that is above a floor you can make a mess on**

Supplies for the Fourth Section (Lessons 46 – 60)

- 👉 Ice
- 👉 Water
- 👉 A small glass
- 👉 A metal paper clip
- 👉 A plastic garbage bag that is tall enough so that you can stand inside it and the top will reach up to your waist (the thicker the plastic, the better)
- 👉 A vacuum cleaner with a hose and a small attachment that has bristles around the edge
- 👉 A balloon (Any shape will do, but it should be larger than your hand when it is inflated.)
- 👉 Clean, dry hair (yours or someone else’s)
- 👉 Thread
- 👉 Scissors
- 👉 A tennis ball or baseball
- 👉 Two straight pins
- 👉 A pen or marker
- 👉 A paper plate
- 👉 A Ziploc bag

- 👉 Tape
- 👉 A large ball that bounces well. The ideal ball is a basketball, but it can be a soccer ball or any other ball that is pretty large and has a nice bounce to it.
- 👉 A ball that is much smaller than the first one – the smaller the better. A golf ball, for example, would be great.
- 👉 String
- 👉 Two washers or nuts
- 👉 A stopwatch
- 👉 A flashlight
- 👉 A straight piece of cardboard that is as wide as your bathtub and at least 10 centimeters (4 inches) tall
- 👉 A bathtub
- 👉 A turkey baster
- 👉 Milk (Whole milk is best, but any cow milk other than skim milk will work.)
- 👉 A pan and a stove for boiling water
- 👉 Four colors of food coloring (They need to be liquid, not gels.)
- 👉 A Q-tip
- 👉 Dishwashing soap
- 👉 A small bowl
- 👉 A large plate that can hold a thin layer of milk
- 👉 Two round balloons of the same size (Somewhere between 5-8 inch diameters work best)
- 👉 A hex head nut (This is the kind of nut that fits on a bolt and is tightened with a wrench. The nut has six flat sides on the outside.)
- 👉 A penny
- 👉 An old compact disc (CD) that can be completely ruined
- 👉 A candle that can stand on its own or is in a holder (It should make a large flame.)
- 👉 Something to light the candle
- 👉 A magnifying glass
- 👉 A 1½ meters (5 feet) length of string
- 👉 A plastic bottle (1-liter bottles are best, but a ½-liter bottle will do. It should be one you can ruin.)
- 👉 Some paperback books
- 👉 Two plastic bags
- 👉 A small jar, like a baby food jar.
- 👉 A funnel whose large opening is bigger than the jar
- 👉 Some Play-Doh
- 👉 A small balloon (It needs to fit inside the jar when it is just barely inflated.)
- 👉 A wall mirror
- 👉 A kitchen sponge it is okay to ruin
- 👉 Epsom salt (available at any drugstore)
- 👉 A pan
- 👉 A stove
- 👉 A spoon for stirring something hot
- 👉 Two bowls
- 👉 Two small plates
- 👉 Two small rocks
- 👉 A Slinky (It can be small or large, plastic or metal.)

- ✎ A stepladder or platform that is a couple of meters (six feet) high and an easy place from which to drop objects.

Supplies for the Fifth Section (Lessons 61 – 75)

- ✎ A mug used for hot beverages or a very well-insulated cup and a glove.
- ✎ Water
- ✎ A pan and stove for boiling water
- ✎ A flashlight
- ✎ A 30-centimeter (12-inch) length of string
- ✎ A fresh tomato
- ✎ A large pot for boiling water
- ✎ A knife
- ✎ A plastic container with a lid (like a Tupperware container) that is small enough to fit into the pot but large enough to hold half a tomato
- ✎ Kitchen tongs
- ✎ A piece of cardboard (no bigger than 18 cm [7 in] by 10 cm [4 in])
- ✎ Clear plastic wrap
- ✎ Tape
- ✎ Scissors
- ✎ A medicine dropper
- ✎ A flower with petals that are light in color (White would be ideal, but any light color will do. A flower bought from a store will work, or you can pick one from outside.)
- ✎ A small glass (like a juice glass)
- ✎ Food coloring
- ✎ Scissors
- ✎ A spoon
- ✎ A flower that looks something like a lily. It should have obvious stalks in the center, and one should be noticeably different from the rest (see picture on page 203).
- ✎ Two plain white sheets of paper
- ✎ A magnifying glass
- ✎ A string of colored Christmas tree lights
- ✎ A tapered candle that is 15 centimeters (6 inches) long or can be cut down to that length.
- ✎ A lighter
- ✎ Two tall glasses that are the same height
- ✎ Aluminum foil
- ✎ Two straight pins
- ✎ A serrated knife (like a steak knife)
- ✎ A pie pan or the top from a round storage tin
- ✎ Two cardboard tubes from the center of a roll of toilet paper
- ✎ Three cardboard tubes from rolls of paper towels
- ✎ Eight uncooked eggs
- ✎ A Ping-Pong ball
- ✎ A metal hanger
- ✎ A small plastic bottle, like the kind water comes in
- ✎ A ¼-cup (or about 60 mL) measuring cup
- ✎ A funnel

- ✎ A marker
- ✎ A stopwatch or a watch with a seconds hand
- ✎ A marble (A “shooter” marble that is larger than a standard marble is best. However, a standard marble will work.)
- ✎ A golf ball
- ✎ A straw (the kind you use to drink)
- ✎ A ruler
- ✎ A bag of small candies like Reese’s Pieces, M&Ms, or Skittles
- ✎ A ½-cup measuring cup
- ✎ A measuring tablespoon
- ✎ An index card
- ✎ A pushpin
- ✎ A lamp that can be moved
- ✎ A wagon or anything else with wheels that you can stack things on and push (Even a chair with wheels will work.)
- ✎ A driveway or other long, flat surface over which the wagon can roll
- ✎ Several books that can be easily stacked on top of one another

Supplies for the Sixth Section (Lessons 76 – 90)

- ✎ A handheld hair dryer (It is best if the hair dryer has at least two settings, like “low” and “high.”)
- ✎ A Ping-Pong ball
- ✎ A golf ball
- ✎ A paper or Styrofoam cup
- ✎ A stepladder
- ✎ A pen
- ✎ Water
- ✎ A long piece of string (Ideally, it should be long enough to stretch out along the longest hallway you have. You need something stronger than thread, but it needn’t be really thick string.)
- ✎ A straw
- ✎ Two balloons
- ✎ Tape
- ✎ Several (at least 5) coins of the same value
- ✎ Two rulers (You can use just a single ruler if it has a thin groove in the center that will act as a track down which marbles can be rolled.)
- ✎ At least five marbles, all the same size
- ✎ A few heavy books
- ✎ A Styrofoam cup
- ✎ A stopwatch
- ✎ Water
- ✎ Karo corn syrup (Other brands would probably work.)
- ✎ A sink
- ✎ A pan
- ✎ A spoon for stirring
- ✎ A stove
- ✎ A pitcher, measuring cup, or some other container with a pour spout
- ✎ A square of aluminum foil that is about 5 centimeters x 5 centimeters (2 inches x 2 inches)

- ✎ A sewing needle
- ✎ A lump of Play-Doh or modeling clay
- ✎ Two paperback books that are roughly the same size and thickness
- ✎ An empty CD case
- ✎ About two meters (about six feet) of string
- ✎ A small plastic bag (like a Ziploc bag)
- ✎ At least 30 pennies
- ✎ A small plastic bottle with a lid (like the ones water comes in)
- ✎ A funnel
- ✎ A ¼-cup measuring cup
- ✎ A thin piece of cardboard (like you find on the back of a pad of paper)
- ✎ A toy car that doesn't have a motor
- ✎ Two chairs of the same height (or other heavy items to which string can be tied)
- ✎ A metal pot with a handle
- ✎ A metal spoon
- ✎ A coffee mug (The experiment is more dramatic if its breakable!)
- ✎ A length of string that is about as tall as you and strong enough to stop the mug if it falls
- ✎ Scissors
- ✎ A nut (the kind that threads on to a screw)
- ✎ A pencil
- ✎ A Styrofoam plate that has enough of a raised edge that it is a bit like a very shallow bowl
- ✎ A Styrofoam cup (the larger the better, but any size works)
- ✎ A pen
- ✎ A bathtub