

Lab Supplies for *Science in the Beginning*

The supplies listed in red are used for the challenge lessons. If you are not doing those lessons, you don't have to worry about those supplies

Supplies for the First Day of Creation

- 👉 A flashlight
- 👉 A hand-held mirror (the mirror should be bigger than the light on the flashlight)
- 👉 A dark room
- 👉 A Compact Disc (CD) or Digital Video Disk (DVD). It doesn't matter whether or not it is blank.
- 👉 A candle and something you can use to light it
- 👉 Two sheets of white construction paper
- 👉 A sheet of black construction paper
- 👉 A sheet of red construction paper
- 👉 Someone to help you
- 👉 A white plastic garbage bag
- 👉 A black (or very dark) plastic garbage bag
- 👉 Scissors
- 👉 A window that has direct, bright sunlight shining through
- 👉 A table or other flat surface that can be put in the path of the sunlight
- 👉 A small scrap of white paper
- 👉 An old cake pan or other shallow baking dish
- 👉 A magnifying glass
- 👉 A glass of water
- 👉 An energy-saving fluorescent bulb (often called a compact fluorescent light bulb)
- 👉 A balloon
- 👉 Aluminum foil
- 👉 A flashlight that uses two batteries
- 👉 A remote control for a television, DVD, or music player
- 👉 Whatever the remote controls
- 👉 A cheap digital camera with a screen that shows you what the camera is seeing. The less sophisticated, the better. A cell phone's camera usually works great.
- 👉 A clear glass or plastic bowl that is large enough for a fork to be laid out on the bottom.
- 👉 Water
- 👉 A fork
- 👉 A countertop
- 👉 A dark night (It doesn't need to be pitch black – just dark)
- 👉 A closed window where someone can stand outside but be near the window and roughly on the same level as a person looking through the window from the inside of the house.
- 👉 A clear two-liter plastic bottle, like the kind used to hold soda pop
- 👉 A sink with a water tap
- 👉 Something an adult can use to make a round hole that is about ½ inch in diameter (A drill is ideal, but the adult can use anything that will make a round hole in the bottle.)
- 👉 **Pencil and paper**
- 👉 **A bright flashlight that is fairly large (The face of the flashlight should be at least 2 inches in diameter.)**

- 👉 Black construction paper
- 👉 Tape
- 👉 Four quarters
- 👉 A spoon
- 👉 Milk
- 👉 A glass baking pan that is clear and roughly rectangular. A clear glass cake pan is ideal, but a clear glass bread pan will work as well.
- 👉 A counter that is white or nearly white
- 👉 A pencil
- 👉 A glass that is not as tall as the pencil
- 👉 A clear two-liter plastic bottle, like the kind used to hold soda pop
- 👉 An old newspaper or something else that has words on it. You should make sure that your parents won't mind if it gets wet.

Supplies for the Second Day of Creation

- 👉 Two glass jars or two tall glasses that are nearly the same
- 👉 Something to cover one of the jars or glasses. It can be a lid, or it can be just a small plate that sits comfortably on top of the jar or glass.
- 👉 Hot pads
- 👉 Water
- 👉 Matches
- 👉 A microwave oven (If you don't have one, you will need a stove and a pot to heat some water.)
- 👉 A plastic bottle of any size
- 👉 A balloon
- 👉 A metal measuring spoon or a soup spoon
- 👉 A candle
- 👉 A saucer
- 👉 A refrigerator
- 👉 A freezer
- 👉 Aluminum foil
- 👉 Ten small coins, such as pennies (More if you want to do the "optional" part at the end)
- 👉 Scissors
- 👉 A sink with a plug
- 👉 A can of Coke or Pepsi (An off brand should work, but I make no promises.)
- 👉 A can of diet Coke or diet Pepsi (Once again, an off brand should work.)
- 👉 A metal paper clip
- 👉 Ice cubes
- 👉 An onion
- 👉 A fresh orange or apple
- 👉 A potato
- 👉 A small saucepan
- 👉 Two other pans that are much taller than the saucepan but close to each other in size
- 👉 A pan lid that is larger than the saucepan
- 👉 A Ziploc bag
- 👉 A stove
- 👉 A pan for boiling water. The flatter the bottom of the pan, the better, because the bottom of the pan needs to be evenly heated. Please note that this pan will be heated without anything in it for a while, so you might not want to use your best pan.
- 👉 A cup
- 👉 A measuring cup that measures one cup
- 👉 A measuring $\frac{1}{4}$ cup
- 👉 A measuring $\frac{1}{4}$ teaspoon
- 👉 Two spoons for stirring
- 👉 Three glasses (like juice glasses) that hold a bit more than one cup of liquid
- 👉 Epsom salt (available at any drug store)
- 👉 Water
- 👉 A 9-volt battery
- 👉 A large glass baking pan (the larger the better)
- 👉 Soap, water, and a towel to wash and dry your hands
- 👉 A magnifying glass

- ✎ A 2-liter bottle of Diet Coke that has been in the refrigerator long enough for it to be cold (It really works best if you use Diet Coke and not an off brand.)
- ✎ A 2-liter bottle of Diet Coke that is at room temperature (It really works best if you use Diet Coke and not an off brand.)
- ✎ One package of Mentos chewy mints (The package should say something like “The Chewy Mint”)
- ✎ An open space outdoors
- ✎ A cork or some other small object that floats
- ✎ A 2-liter bottle (It doesn’t have to be exactly 2 liters – a ½ gallon bottle is fine.)
- ✎ A pan (A deep one works best, because you can put more of the bottle in it.)
- ✎ Oven mitts or gloves to protect your hands
- ✎ A broom
- ✎ A ruler
- ✎ A balloon
- ✎ Tape
- ✎ A pin or something else that can be used to pop the balloon
- ✎ A small glass, like a juice glass
- ✎ An index card or something else made from cardstock that completely covers the top of the glass. Half of an old greeting card works well also. Be sure that the card is not glossy or laminated. It needs to have the same basic feel as an index card.
- ✎ A few tea bags (You need only one, but it is best to have a few, since the effect is not always as dramatic as it could be. Also, it is best to have a few different brands, since the material the bag is made of matters. I find that Bigelow tea bags work the best, but Lipton will work as well. Any brand should work to some extent, but some work better than others.)
- ✎ A plate made out of something that will not catch fire
- ✎ A clear, 1-liter bottle, such as the kind in which bottled water is sold
- ✎ A clear straw
- ✎ Modeling clay or Play-Doh
- ✎ Food coloring
- ✎ A large bowl

Supplies for the Third Day of Creation

- 👉 At least two glass jars with good lids (one for each dirt sample)
- 👉 At least two samples of dirt from different places. Make sure the two dirt samples are noticeably different in color, texture, or consistency. Each sample needs to fill its jar halfway. Feel free to collect more samples of dirt, but you will need a jar for each sample.
- 👉 Water
- 👉 A few small rocks (It is best to collect rocks that are all different.)
- 👉 A hammer
- 👉 A nice hard surface that can get banged up (This could be a workbench or just a big, flat rock.)
- 👉 Something you can use to protect your eyes, such as safety glasses or safety goggles.
- 👉 Two crayons of different colors
- 👉 A cheese grater
- 👉 Two paper plates
- 👉 A saucer that can hold something hot
- 👉 A small amount of heavy-duty aluminum foil (If you don't have heavy-duty foil, just use two layers of regular foil.)
- 👉 A hammer
- 👉 A candle that can stand on its own or a candle in a holder
- 👉 Something you can use to light the candle
- 👉 Kitchen tongs
- 👉 Salt
- 👉 Three glasses
- 👉 A measuring cup that measures one cup
- 👉 A measuring tablespoon
- 👉 Two spoons for stirring
- 👉 Two colors of food coloring (they should be very different, like red and blue)
- 👉 Turkey baster
- 👉 Two paper, plastic, or Styrofoam cups
- 👉 A freezer
- 👉 A marker or crayon
- 👉 Sugar
- 👉 The smallest measuring spoon you have
- 👉 A saucer
- 👉 Three ice cubes
- 👉 A measuring teaspoon
- 👉 Two Styrofoam cups
- 👉 Several dried beans (The kind you soak before cooking, such as kidney beans, lima beans, pinto beans, navy beans, etc.)
- 👉 A cup
- 👉 Paper towels
- 👉 A jar
- 👉 A fresh carrot (It needs to be firm. If it has greenery on it, that's fine, but it is not necessary. The main thing is that it can't be soft.)
- 👉 A knife
- 👉 A small glass
- 👉 A houseplant

- 👤 A large piece of aluminum foil
- 👤 A Ziploc bag
- 👤 Tape
- 👤 Rubbing alcohol
- 👤 A sheet of white paper
- 👤 A penny
- 👤 A pen or pencil
- 👤 A small piece of potato
- 👤 A small piece of bread
- 👤 A small piece of cracker
- 👤 A small amount of butter
- 👤 A small piece of celery (not the leaves)
- 👤 A small piece of cheese
- 👤 A small piece of ripe banana
- 👤 A small piece of very green banana (optional)
- 👤 A small piece of white paper
- 👤 A small plate (It cannot be a paper plate. It needs to be one that you can wash.)
- 👤 Iodine (This can be bought at any large drug store. It might be sold as Betadine, povidone-iodine, Lugol's solution, or tincture of iodine. Any of these will work.)
- 👤 A medicine dropper, unless the iodine comes in a container that allows you to dispense it in drops
- 👤 A deep cardboard box made from thick enough cardboard to block most of the light that hits it (The box needs to be deeper than the height of one of the bean seedlings in its cup.)
- 👤 Sharp scissors or a sharp knife
- 👤 Books, rocks, or something else that will keep a cup from rolling on its side
- 👤 A magnifying glass

Supplies for the Fourth Day of Creation

- 👉 A toothpick
- 👉 Several small rocks
- 👉 A small amount of clay
- 👉 A white piece of standard-sized paper
- 👉 A marker or pen
- 👉 A flashlight
- 👉 Two tall glasses, roughly the same height
- 👉 Water
- 👉 Milk
- 👉 A small glass
- 👉 A measuring spoon that allows you to measure $\frac{1}{8}$ of a teaspoon (You can always estimate from a $\frac{1}{4}$ teaspoon.)
- 👉 A spoon
- 👉 A large cardboard box or a large piece of poster board.
- 👉 A lamp without a shade
- 👉 An extension cord (You might not need this – it depends on the length of the lamp’s cord.)
- 👉 Duct tape
- 👉 A roll of toilet paper
- 👉 A long hallway where you can lay down a long strip of toilet paper
- 👉 A sheet of colored paper
- 👉 A pencil or pen
- 👉 Scissors
- 👉 Tape
- 👉 A ruler
- 👉 A few round balloons ranging in size between roughly 3 and 11 inches in diameter
- 👉 Some modeling clay or Play-Doh
- 👉 A sheet of white paper
- 👉 A ball that fits in your hand, like a baseball (It works best if the ball is white.)
- 👉 A small coin
- 👉 A large ball (Ideally, you should use a globe. However, a large ball will work.)
- 👉 Another ball that is much smaller than the large ball
- 👉 A small box
- 👉 A page from the newspaper (The more white space on the page, the better.)
- 👉 A table or other flat surface outside
- 👉 Plastic wrap
- 👉 Sunscreen with an SPF of at least 30
- 👉 Binoculars (They don’t have to be expensive ones.)
- 👉 Some heavy books
- 👉 A ruler
- 👉 A table that is outside
- 👉 A chair
- 👉 A plate
- 👉 White paper with no lines
- 👉 A saucer that can get very hot without breaking
- 👉 A long-stem lighter, like the kind you would use to light a campfire

- 👤 A candle in a holder or one that can stand on its own
- 👤 Rubbing alcohol
- 👤 A ½ measuring teaspoon
- 👤 Root Kill (Optional – This produces a really nice effect, but you have to go to the plumbing section of a hardware store to get it. 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.)
- 👤 If you have root kill, you will want a ¼ measuring teaspoon as well
- 👤 A dim or dark room with a sink (Don't use a stainless steel sink.)

Supplies for the Fifth Day of Creation

- ✎ A pencil
- ✎ Two colored pencils or two crayons
- ✎ A knife
- ✎ A small cookie cutter or something else that will cut a defined shape out of a slice of a potato, such as a melon baller
- ✎ A potato (Use one that is big enough so the cookie cutter will fit inside a slice of the potato.)
- ✎ Four bowls
- ✎ A measuring tablespoon
- ✎ A measuring cup
- ✎ Salt
- ✎ Two uncooked eggs
- ✎ Clear (often called “white”) vinegar
- ✎ Food coloring (Blue is ideal.)
- ✎ A spoon for stirring
- ✎ Water
- ✎ Some instant Jell-O
- ✎ Butter
- ✎ A pan for boiling water
- ✎ A stove
- ✎ Several toothpicks
- ✎ Aluminum foil (Heavy duty is ideal but not necessary.)
- ✎ Three small bowls to serve as Jell-O molds (They shouldn’t be much wider than a toothpick. If you don’t have such tiny bowls, cut some paper or Styrofoam cups down to the point where they will make small Jell-O molds.)
- ✎ Three dinner plates
- ✎ Scissors
- ✎ A floor that is either hardwood, tile, linoleum, or vinyl
- ✎ A small rug
- ✎ A few balloons that are much longer than they are wide
- ✎ A bathtub
- ✎ A straw
- ✎ Tape
- ✎ Some modeling clay or Play-Doh
- ✎ A glass
- ✎ A two-liter plastic bottle with a lid
- ✎ A bird’s feather (You need one of the bird’s outer feathers, so it can’t come from a pillow. It needs to have a well-defined shaft running down its center. You can buy them at craft stores, but you can also find them in places where birds are found. It could be a fun activity to take your children out to a place where birds are found and hunt for a feather.)
- ✎ Magnifying glass
- ✎ A sink with a faucet
- ✎ Five pieces of paper
- ✎ Cooking oil
- ✎ Toilet paper
- ✎ A plate that is bigger than one square of toilet paper

- 👉 A small glass (like a juice glass)
- 👉 Dishwashing soap
- 👉 Two round balloons of any size
- 👉 Some string
- 👉 A shower that has a curtain rod
- 👉 An umbrella
- 👉 A wide open space in which you can play with the umbrella
- 👉 A drumstick from a chicken (uncooked)
- 👉 The bone from an uncooked T-bone steak (optional)
- 👉 Two sets of pliers (A vice and a pair of pliers will work, as will a really strong person.)
- 👉 **Tweezers**
- 👉 **A paper cup**
- 👉 **Some dirt**
- 👉 **A few strands of cooked spaghetti (Any thin pasta will work.)**
- 👉 **A few peanuts (Any nut with a shell that you have to remove before you eat it will work.)**
- 👉 **Cereal or oatmeal**
- 👉 **Milk (or water if you don't want to eat the cereal)**
- 👉 **A hard-boiled egg**
- 👉 **A Ziploc bag (This is optional as long as your mom doesn't mind you making a real mess.)**

Supplies for the Sixth Day of Creation

- ✎ 8 small rocks
- ✎ A glass jar (the taller the better) that has a lid
- ✎ A piece of wood or hard plastic that is bigger than the jar's opening
- ✎ A shovel or garden spade with which to dig
- ✎ An earthworm (If you live in the right climate, you can find one outside. Earthworms tend to surface after a hard rain, and they tend to live under rocks and logs in places that have a lot of dirt. If you find one, keep it in a lidded container that is $\frac{3}{4}$ full of dirt, but make sure to poke small holes in the lid. If nothing else, you can buy some at a live bait shop.)
- ✎ A paper plate
- ✎ A magnifying glass
- ✎ Two small glasses, like juice glasses
- ✎ A tap that provides hot and cold water
- ✎ A sock
- ✎ A freezer
- ✎ Two bowls of the same size
- ✎ Ice
- ✎ Shortening or lard (Butter will work too.)
- ✎ Paper towels
- ✎ Soap (Liquid soap works best.)
- ✎ A thermometer that an adult can use to take your temperature
- ✎ A bathtub
- ✎ A swimsuit
- ✎ A towel
- ✎ A table
- ✎ Two chairs
- ✎ A few coins
- ✎ A balloon
- ✎ A flavor extract (Like vanilla extract or lemon extract used in cooking – the stronger the aroma, the better.)
- ✎ A funnel
- ✎ An empty metal can (like the kind soup comes in)
- ✎ A can opener
- ✎ Plastic wrap
- ✎ Tape
- ✎ Pepper
- ✎ Two large metal spoons
- ✎ An empty plastic bottle with a lid (It can be a two-liter soda bottle or smaller. The smaller it is, the less vegetable oil you will need. The bottle has to be clear.)
- ✎ Vegetable oil
- ✎ Water
- ✎ Food coloring (Blue is best, but any color will work.)
- ✎ Peppercorns
- ✎ A cup of chilled lemon juice (It can be store-bought or freshly-squeezed. If it is freshly-squeezed, filter out the pulp and seeds.)
- ✎ Sugar
- ✎ $\frac{1}{2}$ measuring teaspoon
- ✎ Measuring cup

- 👉 Three glasses that hold more than one cup of liquid each
- 👉 A spoon for stirring
- 👉 A magazine or book with a smooth, glossy finish
- 👉 A carpet or rug
- 👉 A pad or notebook of paper
- 👉 A large bowl
- 👉 Scissors
- 👉 A peeled apple
- 👉 A peeled potato
- 👉 A cotton ball
- 👉 A knife
- 👉 A room with a mirror (You need to be able to make the room very dark.)
- 👉 A flashlight
- 👉 A sheet of paper or the cardboard center from a roll of paper towels