

Required Materials

No special materials are required for Physical Science B, however, some common household items may be needed for supplemental activities.

Each activity and item listed in this table are for exploration and extension activities that are ungraded.

| Lesson | Activity | Materials |
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| 1 | Exploring Speed | A stopwatch (or a phone timer) A measuring tape or meter stick |
| 2 | Analyzing Force and Acceleration | 3 books (thicker are better) ruler (one with a groove in the center is best) marble tape index card |
| 2 | Momentum Demo | basketball tennis ball |
| 3 | Analyze a Ramp | string object to pull up ramp (e.g. block) books 3 boards of different lengths (or recycled cardboard) |
| 3 | Calculating Power | bathroom scale metric ruler a flight of stairs (or some bleachers) stopwatch |
| 3 | Exploring Levers | A stiff ruler (preferably wooden) A plastic zip-top bag Pen or pencil Masking tape |

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| | | Scissors Pennies or small coins of the same type A bar of soap in a box (or something similar) |
| 4 | Introductory Activity | flashlight solar calculator wind-up toy car |
| 4 | Exploring Energy | rubber band ruler |
| 5 | Exploring Heat | Water A heater (a stove or an electric kettle) A cup (preferably styrofoam, but any will work) A thermometer A liquid measuring cup |
| 5 | Exploring Heat | 2 cups of water (glass or clear plastic) piece of black paper piece of white paper thermometer |
| 5 | Make a Solar Oven | Large pizza box Ruler Black marker Box cutter Heavy-duty aluminum foil Glue Black construction paper |

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| | | <p>Scissors</p> <p>Plastic wrap</p> <p>Tape</p> <p>Stick or plastic straw (optional)</p> |
| 7 | Calculating the Speed of Light | <p>A microwave</p> <p>A plate</p> <p>A full size plain chocolate bar (like a Hershey's bar)</p> <p>A ruler</p> |
| 7 | Analyzing Colors of Light | <p>3 clear glasses</p> <p>red, blue, and green food coloring</p> <p>scissors</p> <p>a sheet of white paper</p> <p>a sheet of green paper</p> <p>scissors</p> <p>flashlight</p> |
| 8 | Exploring Mirrors | <p>A shiny metal spoon (the shinier it is, the better it will work)</p> <p>A pencil</p> |
| 8 | Build a pinhole camera | <p>a cardboard tube (like a paper towel roll or toilet paper roll)</p> <p>a piece of black construction paper</p> <p>4 rubber bands</p> |

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| | | <p>two squares of aluminum foil (size depends on your cardboard tube)</p> <p>wax paper</p> <p>a pin</p> |
| 10 | Exploring Magnets | <p>A permanent magnet (the stronger the better)</p> <p>Paperclips</p> |