

## Supplies

Science notebooks: Each student is going to use a science notebook for these exercises. “Science notebooks contain information about the students' classroom experience. They are encouraged to use them as scientists would, before, during, and after all investigations. They are a place where students formulate and record their questions, make predictions, record data, procedures, and results, compose reflections, and communicate findings. Most importantly, notebooks provide a place for students to record new concepts they have learned.”

[www.sciencenotebooks.org/notebookFeatures/](http://www.sciencenotebooks.org/notebookFeatures/)

Pre-Assessments (per student)

Post-Assessment (per student)

Transfer of energy:

Convection:

- Two juice glasses that will fit into a quart jar or similar setup
- Two quart jars
- Food coloring
- A half-gallon of warm water in an easy to pour container
- A quart of cold water in an easy to pour container
- Two small squares of tin foil
- Sharpened pencil
- Device for stirring water

Teacher's demonstration: Hot and Cold Water

- Large clear jar or small aquarium
- Smaller jar
- Two small bottles
- Red and blue food coloring
- 2 pitchers
- Hot and cold water
- Ice

Teacher's Demonstration: Conduction and Radiation - Steep Fire, Flat Fire

- Three sticks of non-combustible kid's clay (not modeling clay)
- Large strike-on-box stick matches (the little box matches do not work)
- Spray water bottle
- Metal tray

Stopwatch

Book or objects to angle the tray

Energy Transfer:

Object for students to toss and pass around

Firewise:

[‘Are You Firewise’ booklet](#) (printed from the online pdf)

Highlighters and/or colored writing utensils

Printed [defensible space images](#) (found in the materials section) of the houses student will use to model fire mitigation.

Defense by Diorama (these are kits you will make):

Per diorama kit:

12" by 12" mat (this is the student's acreage, randomly give the mats a number between 1 and 4 to represent the degree of slope)

Deciduous trees

Evergreen trees

Shrubs

Street sign

6 tan triangles (stacked firewood)

Cabin and outbuildings

Red fire hydrant

Blue ponds and streams to some kits

\*The parts and pieces do not need to match exactly. The students must use what you put in each kit.\*

[Woodland Home Forest Fire Rating Chart](#), one per group (found in the materials section)