



Simple Machines

Supplies: 10 Items from around your house

Age or Grade: All Ages

Time: 30 Minutes

Background: Machines are important in what we do. We use them every day! What type of machines do you have around your house? Do they make life easier?

Some of the machines or devices in our house are complex, and others are simple. What makes a simple machine? A simple machine is a basic mechanical device that creates force. Simple machine examples are:



Project Goal: To use simple machines to complete a task.

- Ideas:** Decide what type of simple task you want to try. Here are some examples:
- Move a ball from one end of the table to another without touching it.
 - Create a mouse trap type game.
 - Pick up an item from the table and move it to a platform
 - Deliver a sandwich to your mom from one side of the table to another without touching it

- What to Do:**
1. Write down the task that you have chosen to complete.
 2. Choose 10 items from your house that you want to use. These can be anything, but think about your task as you choose these items.
 3. Using the different simple machines listed above, use at least **three** of the simple machines to complete your task.
 4. Write down the steps for your machine.
 5. Once you start your task, you shouldn't touch your machine.
 6. If one of your steps does not work, look at what changes you need to make to make it work.





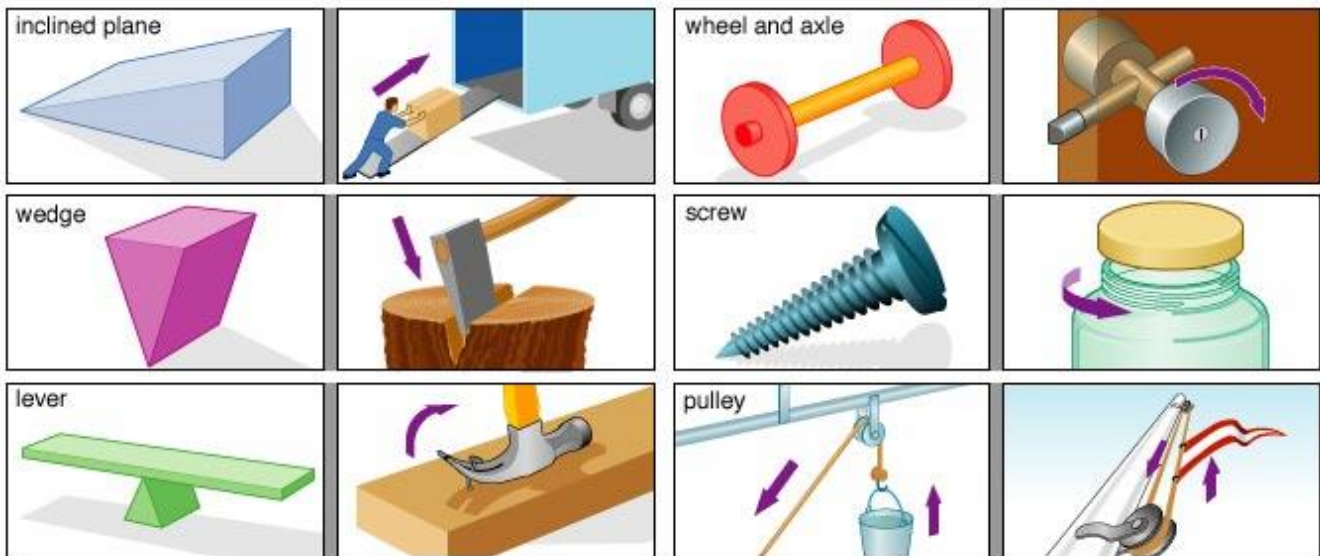
Virginia 4-H STEM @ Home Activity

Reflect:

1. What type of task did you decide to complete? Why?
2. What simple machines did you use? Did they all work?
3. Did you complete your task? What problems did you have when completing your task?

Apply:

1. Why are simple machines important?
2. What simple machines do you see around your house?
3. What other ways can we use simple machines?



© 2006 Encyclopædia Britannica, Inc.



Virginia Cooperative Extension

Virginia Tech • Virginia State University

www.ext.vt.edu



Virginia Cooperative Extension programs and employment are open to all, regardless of age, color, disability, gender, gender identity, gender expression, national origin, political affiliation, race, religion, sexual orientation, genetic information, veteran status, or any other basis protected by law. An equal opportunity/affirmative action employer. Issued in furtherance of Cooperative Extension work, Virginia Polytechnic Institute and State University, Virginia State University, and the U.S. Department of Agriculture cooperating. Edwin J. Jones, Director, Virginia Cooperative Extension, Virginia Tech, Blacksburg; M. Ray McKinnie, Administrator, 1890 Extension Program, Virginia State University, Petersburg.