



MUSEUM OF EARLY
TRADES & CRAFTS

Additional Program information for

Simple Machines

PROGRAM OVERVIEW

Best for 1st to 2nd grades

✓ At METC

✓ Outreach

✓ Live Virtual

✓ Digital Written Lesson Plan

✓ Digital Video Lesson Plan

Throughout history, people have been developing tools to save time and energy using simple machines. Explore the functions of the inclined plane, screw, lever, wedge, wheel & axle, and pulley through close-up examination of the Museum's 19th century artifacts. Discover the innovations people used to make their lives easier, in a time before the development of modern technologies. In cooperative learning groups, present findings to the class.

STANDARDS & SKILLS

New Jersey Social Studies Learning Standards

6.1.2.HistoryCC.3: Make inferences about how past events, individuals, and innovations affect our current lives.

6.1.5.EconNM.4: Explain how creativity and innovation resulted in scientific achievement and inventions in many cultures during different historical periods.

Presenting Arguments & Explanations; Using critical thinking to make sense of problems and persevere in solving them

New Jersey Science Learning Standards

ETS1.A: Asking questions, making observations, and gathering information are helpful in thinking about problems.

K-2-ETS1-1: Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.

Next Generation Science Standards

Obtaining, Evaluating, and Communicating Information K-2



MUSEUM OF EARLY
TRADES & CRAFTS

PROGRAM OBJECTIVES

Students will:

1. Identify and define the six kinds of simple machines.
2. Examine artifacts from the past to understand how these tools represent early technology.
3. Communicate effectively while presenting information to classmates.
4. Explain how people used simple machines to solve problems without electricity or other modern technologies.

SUGGESTED PRE-PROGRAM ACTIVITY

Identifying machines in your life

1. Make a list of some the machines that can be found in your classroom or home.
2. Describe how the machines work.
3. Indicate how each machine helps you

SUGGESTED POST- PROGRAM ACTIVITIES

Finding Simple Machines

Simple machines are all around us! Use the worksheet on the next page to have your students find simple machines in their home or classroom.

Invent your own machine

Ask your students to think about a chore or task that takes a lot of hard work. How could they make that job easier? Have them invent a machine that will do the job for them!

You may find our [Invention Activity](#) to be a helpful guide for this process, just be sure the focus is on using simple machines in whatever tool, or machine, they make.

Their invention should include:

- A combination of several simple machines
- A description of what the machine will do
- A description of how the machine works
- An illustration/diagram of the machine
- The name of the machine



Finding Simple Machines

Now that you have seen historic examples of simple machines, it's your turn to find some in your own home!

As a reminder, the 6 Simple Machine are

- Lever
- Wheel & Axle
- Inclined plane
- Wedge
- Screw
- Pulley

Look around your home and try to find at least 1 example of each type of simple machine. Some items might contain more than 1 simple machine!

In the left-hand column, list the items. In the middle column, list what simple machine(s) it uses. On the right, explain how this machine helps you or your family.

Find Simple Machines!	What Simple Machine does it use? (Some objects may include more than 1!)	How does this machine help you, your family, or your class?



MUSEUM OF EARLY TRADES & CRAFTS

Find Simple Machines!	What Simple Machine does it use? (Some objects may include more than 1!)	How does this machine help you, your family, or your class?

If you have any questions or require any additional information, please feel free to contact the METC Education Department at 973-377-2982, x12 or education@metc.org