

A Draft Curriculum for Upper Elementary Machines, Design, and Technology

1. Engagement activity:

Giant 'ruler' lever set-up – use your smallest student to lift you in a chair
Compound pulley moves a large object
A guest demonstrator of machines
Simple machine 'museum' day

2. Generate questions about machines and design process

Brainstorm for journaling
Homework to research some important machines from history

3. Introduce design challenges and design process

problem/design/invent/test/redesign/retest

Simple machine challenges

4. Introduce home challenge: simple machine invention night

Consider teams of two
**Design can be included in fifth grade as well – bridges are a real challenge at a higher level*

5. Culminating activity: Invention Night

Great to have judges – feedback system for your young designers

6. 'In-basket' type of evaluation with teams of two students

On paper, using diagrams and narrative, describe a possible solution to a problem using machines and the design process