

## Thinking Questions Based on Bloom's Taxonomy

### 1. Knowledge/Remember:

What are the six simple machines? Can you define each of them? Do you see examples of these six machines in everyday objects or activities? What are some of those examples?

### 2. Comprehension/Understand:

How can the six simple machines help people with their work? In what ways do the machines make work easier for people? What do you think life was like before the invention of simple machines?

### 3. Application/Apply:

How could you use each of the six machines to help you accomplish a task? How would this make your work easier? Look around you for evidence of the six simple machines in use. What tasks were made easier by the simple machines you found in use around you? Are there other applications of simple machines that you think should be put in place?

### 4. Analysis/Analyze:

Compare a task being done with and without a simple machine. What are the differences? In what ways did the invention of simple machines change life for people? What kinds of things became possible once simple machines were invented that may not have been possible without them?

### 5. Synthesis/Create:

How would you use one of the simple machines to invent or create a tool to help you with your work? In what ways could you combine more than one simple machine to design a new tool? Using your imagination, design a tool that would help you: travel, cook, move large objects, build a home.

### 6. Evaluation/Evaluate:

Which of the six simple machines do you believe has had the most impact on how we live? Explain your reasons for your choice and give examples of how this simple machine has changed life or work for people. How would life be different today if the six simple machines had not been invented?



## Follow-Up Activities

- Create a list of all the uses of simple machines you can find in your school, home, and neighborhood. Use this list to categorize the kinds of work done by each machine. Compare your list with others in your class.

# Appendix D

## Bloom's Taxonomy of Cognitive Thinking

Domain	Definition	Keywords	Assessment
Knowledge/Remember	<ul style="list-style-type: none"> <li>Ability to remember something previously learned/recall information.</li> <li>Retrieve/identify</li> </ul>	Tell, recite, list, memorize, remember, define, locate, state, who, when, where, how, what, identify, select from list.	Workbooks, quizzes, tests, vocabulary, timelines, fact cards, recitations, lists, matching, multiple choice, true/false.
Comprehension/Understand	<ul style="list-style-type: none"> <li>Demonstrate basic understanding of concepts/curriculum.</li> <li>Translate to other words/retell in own words.</li> <li>Construct meaning.</li> </ul>	Restate, give examples, explain, summarize, translate, show, symbols, predict, define, describe, illustrate, paraphrase, categorize, extrapolate, predict, map-match.	Drawing, diagram, response to question, revision, basic project report, sequencing, translate, define, establish categories, make predictions based on information given.
Application/Apply	<ul style="list-style-type: none"> <li>Transfer knowledge learned in one situation to another, applying information.</li> <li>Use information.</li> </ul>	Demonstrate, use guides/maps/charts, make/cook, interpret, predict, relate, stimulate, organize, develop.	Model, display, collect, written product, recipe/cooked product, artwork/crafts, demonstration, hands-on demonstration, use information in context or real-world situation.
Analysis/Analyze	<ul style="list-style-type: none"> <li>Understand how parts relate to a whole.</li> <li>Understand structure and motive.</li> <li>Note fallacies.</li> <li>Identify structure and purpose.</li> </ul>	Investigate, classify, outline, categorize, review, compare, contracts, solve, survey, diagram, infer, prioritize, discriminate, select, focus on main ideas, deconstruct.	Survey, editorial, questionnaire, plan, solution, report, review prospectus, hypothesis, model, create an outline, compare-and-contrast chart.
Synthesis/Create	<ul style="list-style-type: none"> <li>Re-form individual parts to make a new whole.</li> <li>Create something new.</li> </ul>	Compose, design, invent, create, conclude, construct, propose, forecast, collect, rearrange parts, imagine, extend, hypothesize, construct.	Lesson plan, song, poem, story, advertisement, invention, expert project, experiment with scientific process, present new ideas.
Evaluation/Evaluate	<ul style="list-style-type: none"> <li>Judge the value of something vis-à-vis criteria, support judgment.</li> </ul>	Judge, evaluate, give opinion, viewpoint, rate, prioritize, choose, recommend, critique, support, challenge, discuss, monitor, test, set criteria.	Decisions, rank, rating/grades, editorial, debate, critique, defense/verdict, build criteria.

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