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Title: Sell a Simple Machine!

Duration: Three class periods

Subject Area: Science

Grade Level: 4th Grade

Unit: Unit Six: Forces and Motion

Standards:

S4P3. Students will demonstrate the relationship between the application of a force and the resulting change in position and motion on an object.
a. Identify simple machines and explain their uses (level, pulley, wedge, inclined plane, screw, wheel and axle).

Opening: Students will go on a 5 minute "scavenger hunt" of the classroom to identify as many simple machines as they can find. Share student discoveries through large group discussion. Focus discussion on the name of each simple machine identified and an explanation of the use of the simple machine.

Work Period: Separate students into cooperative groups. Distribute digital cameras to each cooperative group. Students will continue their simple machine scavenger hunt in the school, working together to take pictures of simple machines they identify during their scavenger hunt. Students will meet together to review pictures and discuss and take notes on how each simple machine they identified is used to make work easier.

Load pictures into the computer so students can access them. Students will use www.iPiccy.com to create a poster based on the following prompt: "You are a salesperson for simple machines. You will create a promotional poster that features at least one simple machine and how it is used. Your poster must include an explanation of how the machine makes work easier. Include a slogan that will persuade people to buy your simple machine. Be creative!"

(Option: supplement student photos with photos taken from Flickr Commons. Make photos available to students in a common folder, and be sure to address issues of attributing each photo to the original source.)

Closing: Publish completed iPiccy projects to a website, blog, or Edmodo group. Students read and comment on their classmates' posters, focusing on providing feedback and reflecting on how simple machines make work easier. (Option: Add online poll feature to webpage for students to vote on "Most Persuasive" and "Most Informative" posters.)

Differentiation: Consider student levels when creating collaborative groups – groups can be arranged in homogeneous or heterogeneous groups. Consider assigning "roles" to students within group to add a

differentiated focus to each student's job within their collaborative group (For example: "Photographer", "Note-taker", "Group Leader", "Wheel & Axle Identifier", etc.)

Differentiation

☐ Small group	☐ Product Matrix	☐ Choice of product
☑ Collaborative group	☑ Project based learning	☑ Time or method
☐ Flexible grouping	☐ Problem based learning	☐ Compacting
☐ Tiered instruction	☐ Level of text	☐ Other (see procedures)