Simple Machines Lesson Plan

1. **Grade/Age Level:** Third Grade (Age 8-9)

2. **Subject Area:** Science

3. **Time allotted for the lesson:** Two 45 minute class periods

4. **Short description of lesson:** In this lesson, the learners will explore different simple machines and create a visual representation of one of the types of simple machines.

5. **State Curriculum Standards met in this lesson:**
   a. Utah Third Grade Science Standard 3, Objective 1 C: Investigate how forces applied through simple machines affect the direction and/or amount of resulting force.

6. **Instructional Objectives (Each instructional objective [learning outcome] for this lesson):**
   a. Students will be able to identify each of the six simple machines and describe their uses with 100% accuracy.
   b. Students will be able to identify the use of simple machines in real life with 80% accuracy.

7. **Instructional Procedures**
   a. **Lesson Set**
      ii. As a class, discuss what types of gadgets they used to make jobs easier. Ask if they can think of things we use today that would be similar. Discuss how many of them are examples of simple machines.

   b. **Techniques and activities**
      i. Put students in groups of three or four and assign each group a simple machine to learn about.
      ii. Each group will explore the sites listed below and become an “expert” of one simple machine.
         1. The Franklin Institute: [http://www.fi.edu/qa97/spotlight3/](http://www.fi.edu/qa97/spotlight3/)
4. Simple Machines  

iii. Students will collect examples of their assigned simple machines, either through Internet searches or through taking photos on their iPad mini of simple machines around the school and classroom.

iv. As a group, they will organize their images into a graphic to display in the classroom.

c. Lesson Closure

i. Groups will share their visuals with the class and discuss whether it was easy or difficult to find examples of their simple machines. As a class, discuss why simple machines are used so frequently to perform various tasks.

ii. Discuss how simple machines decrease the force needed to perform a task.

8. Adaptations for special learners

a. For learners who have a difficult time reading and comprehending text from websites, they can watch the video clips at http://www.neok12.com/Simple-Machines.htm

9. Supplemental Activities: Extension and remediation

a. Extension Activities

i. Students will explore the Invention Playhouse at http://www.inventionatplay.org/playhouse_tinker.html and a Rube Goldberg Burglar Catcher at http://archive.fossweb.com/modules3-6/LeverandPulleys/activities/rubegoldbergmachine.html. Students will also watch the short video at http://youtu.be/Pk1ue1tolFc of the game Mouse Trap. Then, have students design a new game using simple machines.

ii. Simple Machine Game


b. Remediation Activities


10. Assessment/Evaluation

a. During the students’ oral presentations, teachers will be able to informally assess understanding of how simple machines can be combined to create compound machines. Students should be able to use scientific vocabulary appropriately and be able to clearly describe how their simple machines work within their gadget.

b. The visual will be graded based on how accurately their examples represent their assigned simple machine.

11. Learner Products

a. Visual collage of a given simple machine

* Note for learners: This lesson plan template is adapted from the model that is recommended in the book Preparing to Use Technology: A Practical Guide for Technology Integration.