

Simple Machines Webquest

Task 1: <http://cstmuseum.techno-science.ca/en/education/tell-me-about-background-information-for-simple-machines.php>

1. Why do we use machines?
2. What are the six simple machines?
3. What simple machines belong to the inclined plane family?
4. What simple machines belong to the lever family?

Task 2: <http://www.physicsclassroom.com/Class/energy/u5l1a.cfm>

5. What does "work" mean in science?
6. See if you understand the concept of work by testing yourself. Circle the number of the statements from the quiz that are examples of work: 1 2 3 4

Task 3: <http://www.enchantedlearning.com/physics/machines/Levers.shtml>

7. What is a lever?
8. Where is the fulcrum located in a class one lever?
9. List some examples of a class one lever.
10. Where is the load located in a class two lever?
11. List some examples of a class two lever.
12. Where is the effort located in a class three lever?
13. List some examples of a class three lever.

14. Sketch the three classes of levers. Be sure to label the effort, load and fulcrum.

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Task 4: <http://www.the-office.com/summerlift/pulleybasics.htm>

15. What is a pulley?

16. What are the three types of pulleys?

17. Sketch and label all three types of pulleys.

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18. What is the advantage of a fixed pulley? What is the disadvantage of a fixed pulley?

19. What is the advantage of a movable pulley? What is the disadvantage of a movable pulley?

20. What is the advantage of a combined pulley? What is the disadvantage of a combined pulley?

Task 5: <http://www.physicsclassroom.com/mmedia/energy/au.cfm>

21. How much work is being done at 30, 45 and 60 degrees?

22. How far does the car travel on the 30, 45, and 60 degree ramps?

23. How much force is expended does the car travel on the 30, 45, and 60 degree ramp?

24. Why are inclined planes useful?