

Quiz #3: Practice Questions

Part 1: Vocabulary Matching

Directions: Match the words to their definitions; on the quiz there will be a definition provided and you will have to choose the correct word from 4 multiple choice answers.

1. _____: A push or pull exerted on an object; the Unit for _____ is the Newton (N)
2. _____: a simple machine consisting of two circular objects of different sizes; the _____ is the larger of the two circular objects; bicycle
3. _____: A device/tool that tapers to a thin edge and is used for splitting another object; A piece of wood or metal that is wide at one end and pointed at the other to help cut or SPLIT things.
4. _____: A simple machine that is an inclined plane wrapped around a cylinder.
5. _____: Applying a force to an object causing it to move. The unit for _____ is the Joule. _____ (J)= force (N) x distance (m)
6. _____: effort; expenditure of much physical work; _____ oneself: make a great effort
7. _____: A machine with few or no moving parts.
8. _____: a simple machine consisting of a wheel with a groove in which a rope can run to change the direction or point of application of a force applied to the rope.
9. _____: The fixed point around which a lever pivots.
10. _____: A simple machine that is an inclined plane wrapped around a cylinder.

WORD BANK

- A. exert
- B. work
- C. lever
- D. wedge
- E. simple machine
- F. wheel and axle
- G. fulcrum
- H. screw
- I. pulley
- J. force

Part 2: Applying Vocabulary

Directions: Circle either the inclined plane or the lever and fulcrum. On the lines below, describe a real world example of it and explain how that simple machine provides an advantage for its user.

11. **Circle one:** (INCLINED PLANE OR LEVER AND FULCRUM)

Part 3: Multiple Choice

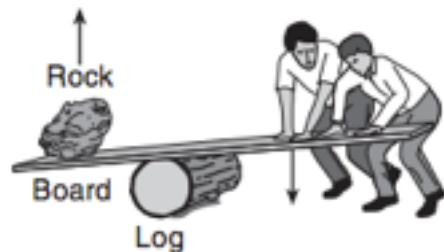
12. The pictures show two levers being used to lift the same rock to the same height. What is NOT an advantage of using the lever in **figure 1**?

- A. Less energy is lost due to friction
- B. Less force is required to move the rock
- C. More work is done while lifting the rock
- D. More energy is transferred to the rock



13. The diagram below represents two people using a board and a log as a simple machine to lift a large rock. In which direction are they putting their effort to move the rock?

- A. up
- B. down



14. In the diagram to the right, which object represents the fulcrum?

- A. the rock
- B. the log
- C. the people
- D. the board

Name _____ Class _____ Date _____ iPad # _____

Part 4-Calculating Work For full credit on your exam, you will need to show your work, use the correct units, and get the correct answer.

15. Ethan needs to lift his backpack which weighs 50 Newtons a distance of 1.5 meters. How much work does he need to do?

your answer: _____

16. Hannah is helping Mr. Abbott replace the fish tank in his office. They need to lift the old tank off the base. The tank weighs 200 N and they need to move it a distance of 30 meters. How much work will they do?

your answer: _____