**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Chapter 4 (PS) Study Guide**

 1 How do simple machines help to get work done?

 2 Which action involves work being done to a stone wall?

 3 Give an example of using a wheel and axle to do work?

 4 A farmer is removing stones from a field. He puts a strong stick under each stone and pushes the stone up. Which simple machine is he using?

 5 A factory loading dock has a ramp to make heavy objects easier to move. Explain how the ramp acts as a simple machine?

 6 On career day at the hospital, Sharon learned that doctors sometimes use screws to help heal broken bones. How could a screw help heal a broken bone?

 7 Michelle uses a piece of wood to hold the door open while she brings some boxes into her house. Which simple machine is she using?

 8 How do simple machines help people do work?

 9 Doug is planning a bicycle route from his home to school. He is looking at how rough the surfaces of the bicycle path are. How will a surface with more friction affect his ride?

 10 Which simple machine changes the direction of the force needed to move an object up or down?

 11 How can a spring scale help find the easiest way to do work on an object?

 12 What kind of simple machine is a pizza cutter?

Write the definition of the following words:

 13. inclined plane \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 14. wedge \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 15. wheel and axle \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 16. Lever \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 17. Pulley \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 18. screw \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 19 Brenda wants to compare the force needed to move a bag of dog food by lifting it or pulling it up a ramp.

What tool should she use to make this comparison?

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Describe how Brenda can use this tool to figure out the difference in force needed.

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