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1. What is friction?

**Friction is a force that slows down or stops motion.**

2. When does friction occur?

**Friction occurs when two objects move against each other.**

3. Name the simple machines.

**Screw, wedge, incline plane, pulley, wheel and axle, lever.**

4. There are how many different classes of levers?

**Three.**

5a. Generally, simple machines can help us in two ways. We can apply less effort over a \_\_\_\_\_ distance,

**Greater**

5b. or we can apply more effort over \_\_\_\_\_ distance.

**Shorter**

5. One way to reduce friction is to use a lubricant. Another way is by using

\_\_\_\_\_  
**Wheels**

6. Simple machines change the \_\_\_\_\_ of a force.

**Direction**

7. A \_\_\_\_\_ is what a lever rests on or "rocks" when working.

**Fulcrum**

8. The item lifted by a lever is called a \_\_\_\_\_.

**Load**

9. A machine made of two or more simple machines is called a \_\_\_\_\_ machine.

**Complex**

10. Do simple machines have motors?

**No**

11. The incline plane is any \_\_\_\_\_ surface.

**Slanted**

12. Give some examples of inclined planes.

**Ramps, hills, ladders, stairs, ski or BMX jumps, etc.**

13. The screw is an \_\_\_\_\_ wrapped around a cylinder.

**Inclined plane**

14. Give examples of screws.

**Screws, light bulbs, jar tops, car jacks, legs on appliances ( washers, dryers, refrigerators), etc.**

15. The wedge is two \_\_\_\_\_ back to back.

**Inclined planes**

16. Give examples of the wedge.

**Knife, doorstop, log splitter, ax, etc.**

17. Give examples of a wheel and axle.

**Car wheels, bicycle wheels, steering wheel, etc.**

18. The \_\_\_\_\_ is a grooved wheel and axle with a rope or cable.

**Pulley**

19. Give examples.

**Flagpole, crane, clothesline, curtain pull.**

20. The \_\_\_\_\_ is a bar that is supported in one position while force is applied at another position.

**Lever**

21. Give examples.

**Crowbar, door, seesaw, scissors, pliers, wheelbarrow, nutcracker, fishing pole, hockey stick, shovel, broom, baseball bat, arms and legs, etc.**

22. Where the bar is supported is called the \_\_\_\_\_.

**Fulcrum**

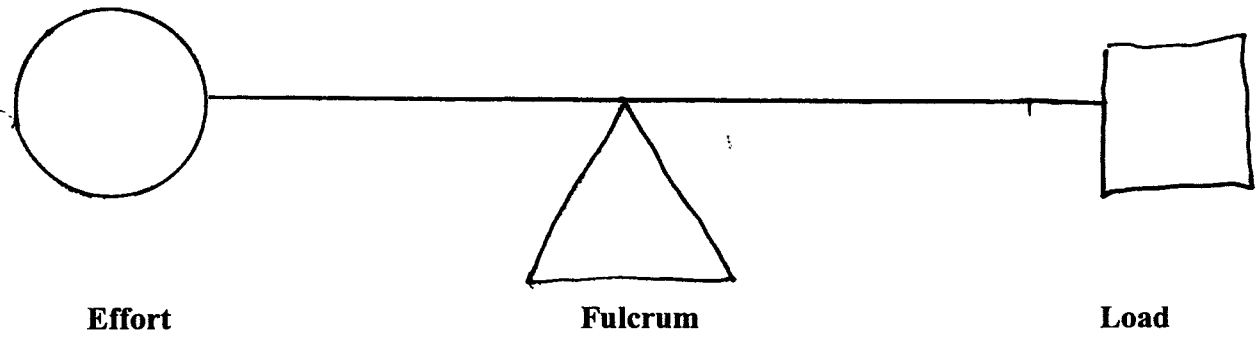
23. Where the force is applied is called the \_\_\_\_\_.

**Effort**

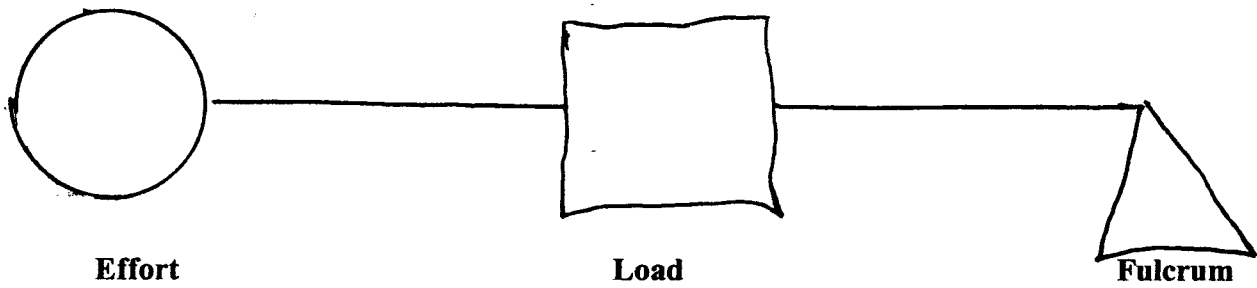
24. What is being lifted is called the \_\_\_\_\_.

**Load**

25. Draw a picture of a class 1 lever labeling the three parts.



26. Draw a picture of a class 2 lever labeling the three parts.



27. Draw a picture of a class 3 lever labeling the three parts.

