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Wheel and axle simple machine examples

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The motion or rotation of the wheel exerts a force on the axle, which can be used further to produce energy. A simple machine that may be used the most often is called the wheel and axle. The wheel and axle has two basic parts: wheel and axle. They can be found everywhere. It has two circular objects which includes a larger disc and a small cylinder both joined at the center. The large disc is the wheel, and the small cylinder or rod is the axle. There may be two wheels attached to the axle like in the image to the left, or it could be a single wheel and axle. The wheel is one of the greatest inventions in history, but it does not work without the axle. There are two basic ways a wheel and axle can work together to help move things. 1. The Force is applied to the Wheel For example, a screwdriver is an example of a wheel and axle. The handle is the wheel where the force is applied. It turns or spins and increases the force of the shaft or axle, which helps turn the screw. Another example of force being applied to the wheel is when a doorknob is turned. The wheel (doorknob) is turned and the locking mechanism connected to the shaft turns and the door can then be opened. 2. The Force is applied to the Axle A Ferris wheel is an example of force being applied to the axle. When the axle turns it results in the giant wheel turning. The wheel is much larger than the axle and covers more distance and area. A ceiling fan works the same way. Gears, like those shown to the left, are special wheels with teeth called threads located on the outside of the wheel. Gears also need axles. The gears can be found in different sizes and are arranged with their teeth interlocking. Larger gears turn the smaller gears. Gears can be found on bicycles, which also uses a force applied to the axle to help its wheels move. Anytime something moves in a circle, there is most likely a wheel and axle involved. Other examples of wheel and axle use include electric fans, motors, revolving doors, and merry-go-rounds, as well as the wheels used on skateboards, roller blades, cars, and many, many more objects. As with all simple machines like the wheel and axle, they are designed to help make work easier to do.