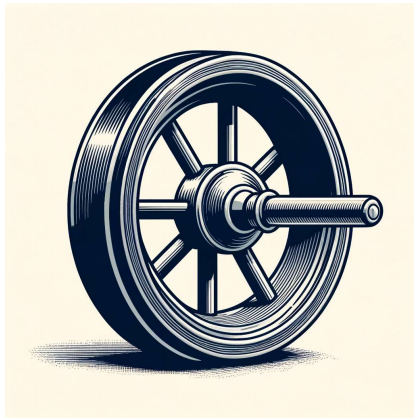


## H1. Wheels and Axles: Wheels and Axles in Everyday Life

### Wheels and Axles: Simple Machines That Make Life Easier

Have you ever ridden a bike, used a rolling suitcase, or played with toy cars? If you have, then you've seen wheels and axles in action! Wheels and axles are simple machines that help us do work more easily. Let's learn how they work and where we can find them in our daily lives.



A wheel is a round object that can roll. An axle is a rod that goes through the center of the wheel, allowing it to turn. Together, the wheel and axle make it easier to move things from one place to another. When you push or pull something with wheels and axles, you don't need to use as much force as you would without them.

#### Examples of Wheels and Axles in Everyday Life:

**1. Bicycles:** The wheels on a bicycle are attached to axles. When you pedal, the wheels turn, and the bike moves forward. This helps you travel faster and with less effort than walking.

**2. Cars and Buses:** Cars and buses have wheels and axles that help them roll down the road. The engine provides the power to turn the wheels, so you can travel long distances quickly.

**3. Rolling Suitcases:** Have you ever noticed the small wheels on your suitcase? These wheels are attached to axles, making it easier to pull your heavy luggage through the airport.

**4. Shopping Carts:** The wheels on a shopping cart make it easy to push your groceries around the store. Without wheels and axles, it would be much harder to move the cart.

**5. Skateboards and Roller Skates:** The wheels on skateboards and roller skates help you glide smoothly over surfaces. The axles connect the wheels to the board or the boots, allowing them to spin freely.

Wheels and axles are everywhere! They make our lives easier by reducing the effort needed to move objects. Next time you see a wheel and axle, remember how important they are in helping us do work more easily.

## Multiple Choice Questions: Wheels and Axles - Simple Machines That Make Life Easier

1. Explain how wheels and axles work together to make movement easier?
  - A. The wheel and axle create more friction to slow things down.
  - B. The wheel rolls around the axle, reducing the amount of force needed to move objects.
  - C. The axle is stationary and the wheel stays still.
  - D. The axle spins, causing the wheel to stay in place.
  
2. Why is it easier to pull a rolling suitcase with wheels and axles than to carry it?
  - A. Wheels and axles make the suitcase heavier.
  - B. The wheels reduce friction and the axle allows the wheels to turn smoothly.
  - C. The wheels make the suitcase bounce.
  - D. The axle stops the wheels from moving.
  
3. Describe a scenario where not having wheels and axles would make a task more difficult?
  - A. Pushing a heavy shopping cart around the store.
  - B. Rowing a boat
  - C. Flying in an airplane.
  - D. Using a computer.
  
4. How do wheels and axles on a bicycle help you travel faster compared to walking?
  - A. The wheels and axles allow the bike to roll smoothly, covering more distance with less effort.
  - B. The axles keep the wheels from moving too fast.
  - C. The wheels make it harder to pedal.
  - D. The wheels and axles make the bike heavier.
  
5. In what ways do wheels and axles on cars and buses contribute to long-distance travel?
  - A. Wheels and axles reduce friction and allow for smooth rolling motion, enabling efficient and quick travel.
  - B. Wheels and axles make cars and buses slower.
  - C. The axles make the wheels stop moving.
  - D. The wheels and axles increase the fuel consumption.

## Multiple Choice Answers: Wheels and Axles - Simple Machines That Make Life Easier

### Question 1:

- Answer: B - The wheel rolls around the axle, reducing the amount of force needed to move objects.
- Explanation: "A wheel is a round object that can roll. An axle is a rod that goes through the center of the wheel, allowing it to turn. Together, the wheel and axle make it easier to move things from one place to another."

### Question 2:

- Answer: B - The wheels reduce friction and the axle allows the wheels to turn smoothly.
- Explanation: "Have you ever noticed the small wheels on your suitcase? These wheels are attached to axles, making it easier to pull your heavy luggage through the airport."

### Question 3:

- Answer: A - Pushing a heavy shopping cart around the store.
- Explanation: "The wheels on a shopping cart make it easy to push your groceries around the store. Without wheels and axles, it would be much harder to move the cart."

### Question 4:

- Answer: A - The wheels and axles allow the bike to roll smoothly, covering more distance with less effort.
- Explanation: "The wheels on a bicycle are attached to axles. When you pedal, the wheels turn, and the bike moves forward. This helps you travel faster and with less effort than walking."

### Question 5:

- Answer: A - Wheels and axles reduce friction and allow for smooth rolling motion, enabling efficient and quick travel.
- Explanation: "Cars and buses have wheels and axles that help them roll down the road. The engine provides the power to turn the wheels, so you can travel long distances quickly."