



Course Vehicle Repair  
Section: Automotive Technology



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# Can Your Vehicle Tow It?

## What You Will Do

Determine safe towing limits by finding towing capacity, calculating trailer weight, and comparing the two.

## Materials You Will Need

- Family vehicle (parked)
- Owner's manual or internet specs if available
- Paper
- Pencil
- Calculator (optional)

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## Important Safety Note

Real towing capacity must always come from the owner's manual, door sticker, manufacturer towing guide, and hitch rating. This activity teaches the concept only.

## What is Towing Capacity?

Towing capacity = the maximum trailer weight a vehicle can safely pull.

This depends on:

- Engine size
- Transmission
- Brakes
- Cooling system
- Axle ratio
- Vehicle frame
- Hitch equipment

## Part 1: Investigate the Vehicle

Find:

Year: \_\_\_\_\_

Make: \_\_\_\_\_

Model: \_\_\_\_\_

Engine size: \_\_\_\_\_

Example: 2020 Ford Explorer 2.3L

## Part 2: Find Maximum Tow Rating

Use the vehicle's owner's manual or manufacturer guide.

Write: Maximum Tow Capacity = \_\_\_\_\_ lbs

## Part 3: Calculate Passenger & Cargo Weight

Everything inside vehicle reduces towing ability.

Estimate the weight of the following:

- Driver: \_\_\_\_\_
- Passengers: \_\_\_\_\_
- Cooler: \_\_\_\_\_
- Luggage: \_\_\_\_\_
- Sports gear: \_\_\_\_\_

Add Total: Cargo + People = \_\_\_\_\_ lbs

## Part 4: Estimate Safe Trailer Weight

Use this simplified formula:

Tow Capacity - Cargo Weight = Remaining Tow Ability

### Example:

5,000 lb tow rating - Minus 700 lbs people/cargo = 4,300 lbs remaining

(Use calculator if desired: 5000-700)

## Part 5: What Could We Tow?

Choose which would be safe:

- Small utility trailer      1,500 lbs
- Pop-up camper              2,500 lbs
- Boat trailer                 3,800 lbs
- Large camper                6,000 lbs

Circle which ones your vehicle could tow.

## Reflection Questions

- Why does passenger weight reduce towing ability?
- Why are brakes important when towing?
- Why can a trailer be dangerous even if the engine can pull it?
- Why must hitch rating match trailer weight?
- Why should you never guess towing limits?