Forces

Think

- How can you recognize a force? List some ideas that let you know a force is present.

Think

- What are some action words (verbs) that refer to forces or may describe motion, which is caused by a force?

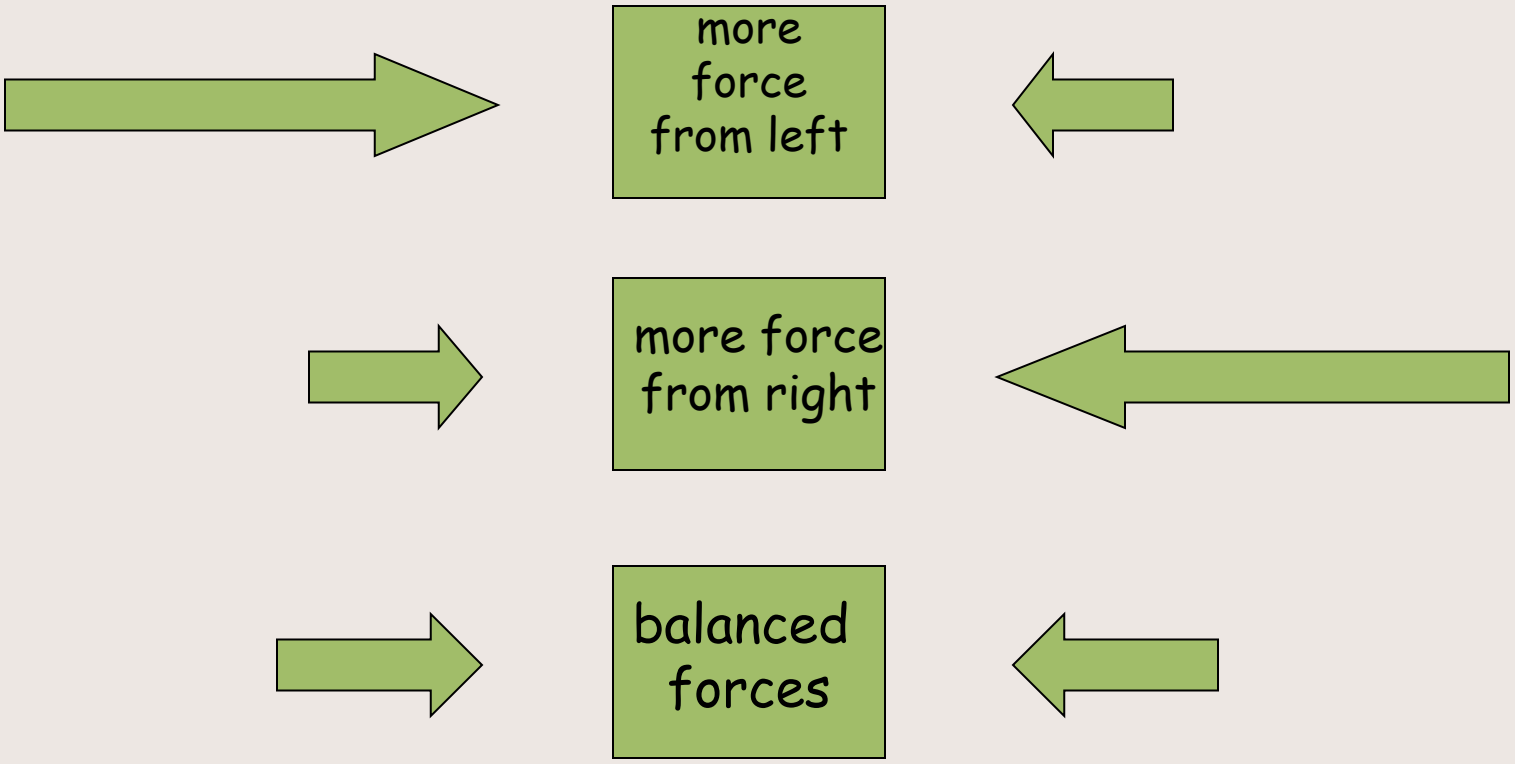
Think

- Imagine you put a book between you and a partner. Both people would gently push from both sides of the book. Have one person push slightly harder than the other, balance the forces (push equally from both sides), then switch.

Sketch

- Make a drawing of the opposing forces on the book. Use arrows to illustrate the forces that were exerted (length of arrow relates to the amount of force).

Sketch



Research

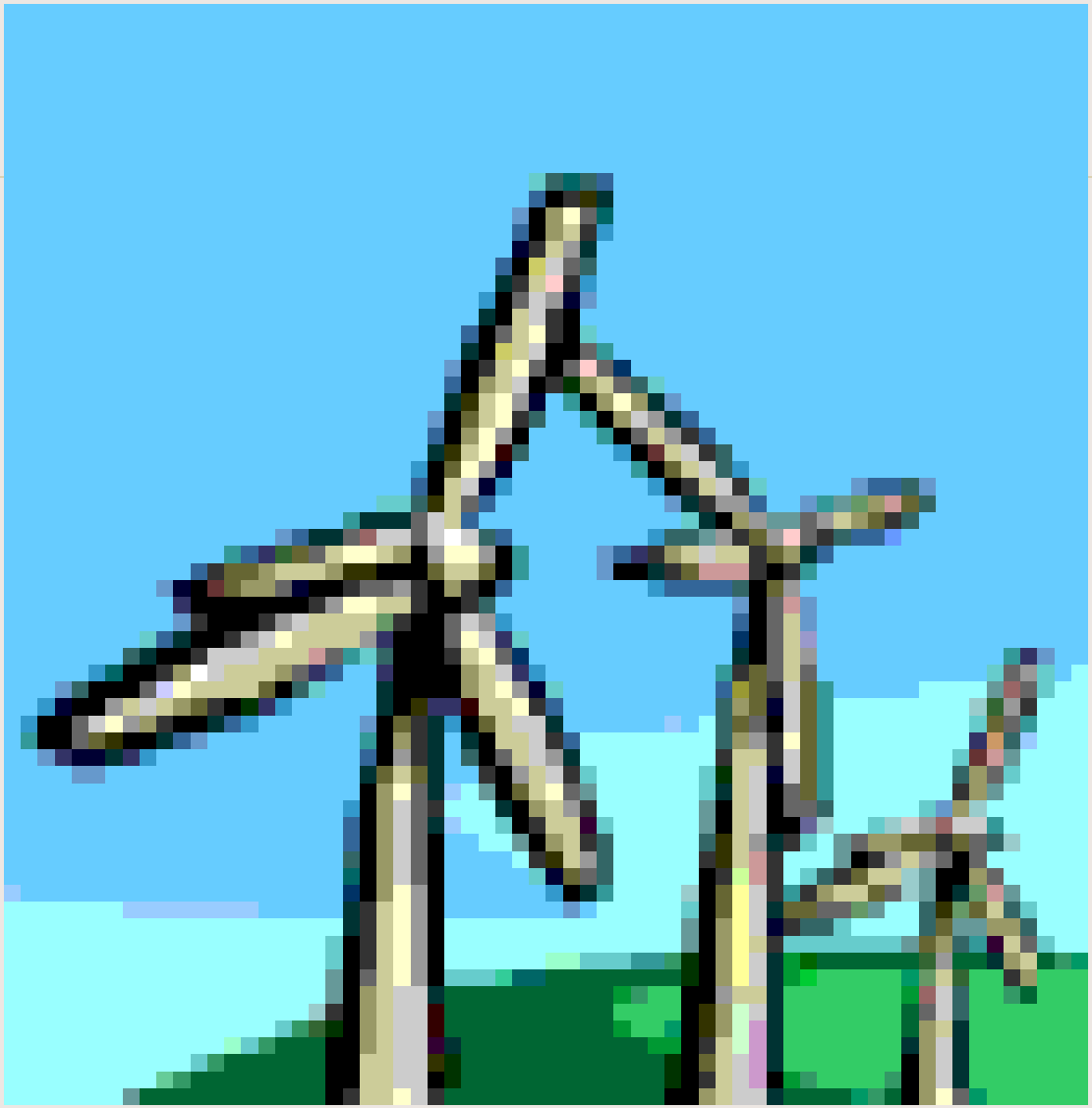
- Force: a push or pull which can cause motion.
- Agent: the object which applies the force.

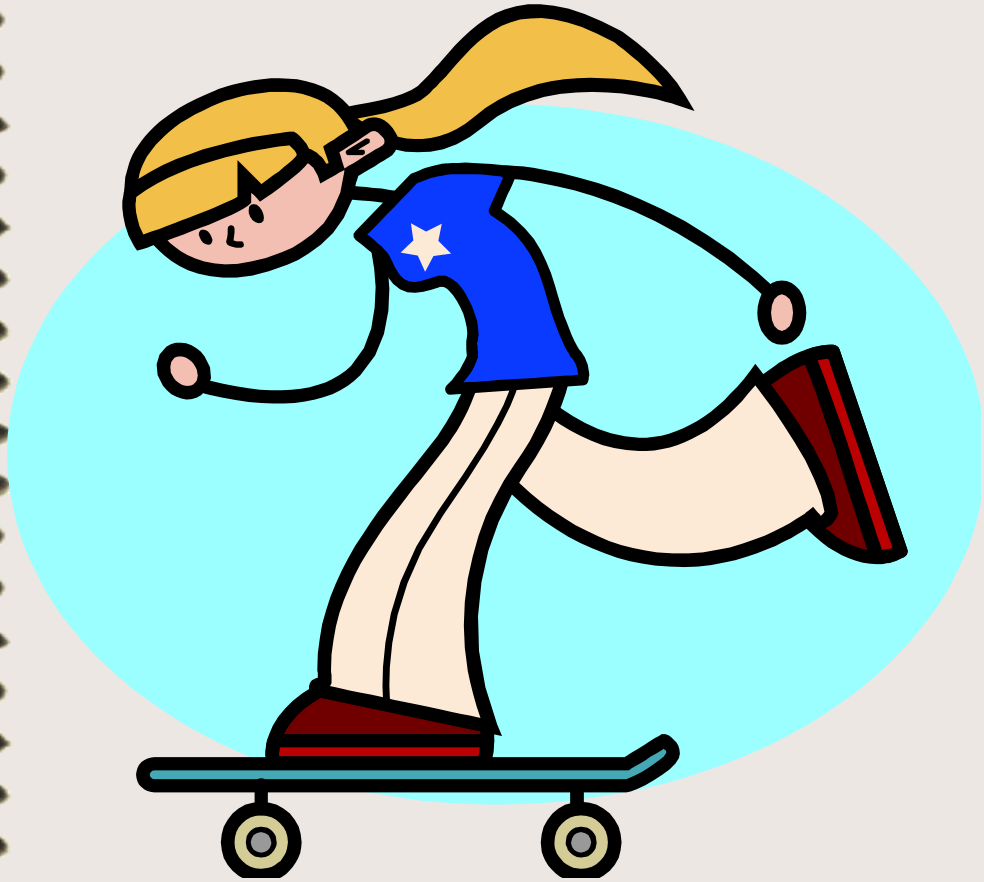
Research

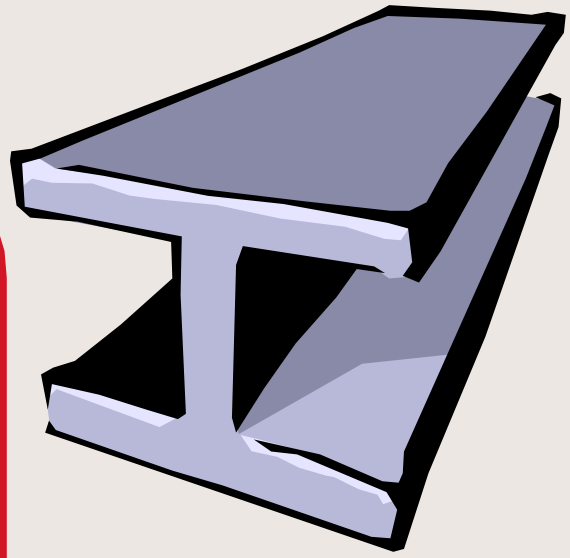
- Receiver: the object which receives the force.

Procedure

- For each of the following slides identify the agent of force (A), the receiver of force (R), and the effect of the force (E).
- A= R= E=







Activity

- Go to each of the six lab stations and ***follow the directions on the card*** at the station. For each station record the agent (A), receiver (R), & effect (E) of the force.

Forces - Questions

1. No. Sometimes one or the other is inferred: “She fell over”
2. Yes. Gravity and/ or Magnetic
3. A push or a pull that one object exerts on another that can cause motion.

Forces - Questions

4. Yes- Gravity and friction are at work at the same time in many situations.

Tackle + Gravity => Ball carrier falls

Procedure

- A=
- R=
- E=

Key Concepts

- A **force** is a push or pull which can cause **motion**.
- **Motion** is the change of position over a period of time.
- When an object applies a force onto another object, it is known as an **agent**.
- An object that is affected by or **receives** the force from the **agent** to change its position over time is known as the **receiver**.
- The **effect** of a force by the **agent** on the **receiver** describes the change of motion of the **receiver**.