Interaction Force Pairs

Lesson Notes

Newton's Third Law:

"For every action, there is an equal and opposite reaction."

... meaning that forces are the result of simulataneous, mutual interactions between two objects. Forces always come in pairs.

Ineraction Force Pairs

Procedure:
1. Identify the two objects involved in the interaction.
2. Describe the push on one of the object.
3. Describe the push on the other object.
   (The two nouns in the sentence switch locations.)
   (Include a directional adjective.)

Example: **Person** pushes <u>down</u> on the **floor**.

Floor pushes <u>up</u> on the **person**.

Example 1:

A book is at rest on the desk.

Two objects: _____ and _____.

Interaction Force Pair

A. _____

B. _____

Example 2:

A swimmer freestyles through the water.

Two objects: _____ and _____.

Interaction Force Pair

A. _____

B. _____

Example 3:

A woman walks across the office floor.

Two objects: _____ and _____.

Interaction Force Pair

A. _____

B. _____

Example 4:

A bird uses its wings to fly.

Two objects: _____ and _____.

Interaction Force Pair

A. _____

B. _____

Example 5:

A cannonball is fired from a cannon.

Two objects: _____ and _____.

Interaction Force Pair

A. _____

B. _____

Complex Interactions ... involve more than two objects and a collection of force pairs.

Examples: