

Energy Balance Tug-of-War

Nutrition Lesson(s) Supported:

- Balanced Plate
- Food for Fuel

Supplies Needed:

- Rope

Length of Time to Complete:

10 minutes

Audience (grades): K-5

Background:

Energy balance is when the energy we put in our bodies (food) equals the energy we put out (exercise). Weight gain occurs when we put more energy in (food) than we put out (exercise); weight loss occurs when we put more energy out (exercise) than we put in (food). To build a health body, it is important to consume a balanced diet and engage in exercise/activity.

Process:

Leader: Pull out the tug-a-war rope and ask for a few volunteers to help. Assign the volunteers either a food or an activity. *For example, assign food volunteers a specific food (sandwich, fruit plate, granola bar, trail mix, etc) and assign each activity volunteer a specific activity (playing soccer, walking the dog, gymnastics, etc).* All the food volunteers will be on one side of the rope, the activity volunteers will stand on the other side.

Demonstrate the energy balance using the tug-a-war rope:

1. Show what happens when energy in is greater than energy out (have more 'food' volunteers and one activity volunteer). Have the food volunteers pull on the rope. Clearly, you have put more energy into your body than you need. If you continue to add more energy in than what you're putting out, weight gain occurs.
2. Show what happens when energy out is greater than energy in. Have all the activity volunteers participate, and only 1 or 2 food volunteers. When you put out a lot of energy, and don't refuel with food, over time, you lose weight. Growing bodies need energy to grow, which is why we need to have energy balance.
3. Show the students energy balance with equal food and activity volunteers on each side.

