Grade: Basic/4-5

Objective:
Students will recognize that carbohydrates, fat and protein supply different amounts and types of energy to the body.

Equipment:
- Small Foam Balls
- Large Foam Balls
- Foam Footballs
- Plastic Bowling Pins

Explanation:
Our bodies receive energy from the food we eat every day (Energy In, Energy Out). Energy in food is measured by the number of calories it contains. Energy in food is found in carbohydrates, fats, and proteins.

Carbohydrates provide 4 calories in each gram. Exercises that are higher in intensity will use carbohydrates as their energy source.

Fat provides 9 calories in each gram. Exercises that are low in intensity will use fat as their energy source.

Protein provides 4 calories in each gram and is used primarily to build and repair body muscle.

Directions:
1. Place 15 plastic bowling pins throughout the playing area.
2. Send one student to each pin.
3. The remaining students spread out on the outside of the boundary lines.
4. On the signal to start, students on the inside guard their pin while attempting to throw or roll balls at the other pins.
5. The students standing on the outside retrieve balls that leave the play area and wait for a pin to open up.
6. If a student's pin is knocked down with a ball, he/she goes to the outside of the play area and performs an exercise that corresponds to the type of ball his/her pin was hit by:
   - **Small Foam Balls** represent carbohydrates and receive quick energy. To burn off carbohydrates, the student does 4 rocket blasters.
   - **Large Foam Balls** represent fat and receive a lot of energy. To burn off fat, the student does 9 jumping jacks.
   - **Foam Footballs** represent proteins and receive energy and also the ability to repair muscle. To burn off protein, the student does 4 push-ups.
7. When a student completes his/her exercise, he/she stands on the outside of the play area to retrieve balls and waits for a pin to open up.

Assessment:
Throughout the activity, periodically stop and ask students what types of energy carbohydrates, fat, or protein provide and their calorie amounts.

![Diagram of Energy Pin-Down Activity]