

## How Energy Helps Us Move

Swimming is a fun activity where we move our arms and legs to go from one side of the pool to the other. But have you ever wondered where we get the **energy** to swim? In this passage, we will learn how our bodies use energy to move.



Where Does Energy Come From? Our bodies need to have energy in order to swim or do any sort of movement. We get energy from the food we eat, like **carbohydrates** found in bread, potatoes, and treats, **fats** found in butter, cream, and oils, and **proteins** found in meats and eggs.

When we move, we use the muscles in our arms and legs. Our muscles need the energy to work. When our bodies break down food, it gives us the energy we need. When we move at a regular pace, our bodies use **oxygen** to help make energy. This is called **aerobic respiration**. It helps break down the carbohydrates, fats, and proteins from food to make energy.

Sometimes, we move really fast, like when we sprint or swim at high speeds. Our bodies need energy quickly, but oxygen can't reach our muscles fast enough. So our bodies use a different way to make energy called **anaerobic respiration** which makes energy without oxygen, but it also makes lactic acid, which can make our muscles tired and sore. Think about how sore your muscles might get after running or swimming a lot. That was lactic acid in your muscles.

In conclusion, we need energy to move. Our bodies make energy from the food we eat, and this energy helps our muscles move. When we swim slowly, we use oxygen to produce energy. But when we swim fast, we make energy without oxygen. Understanding how energy works in swimming can help us become better athletes and have more fun when we play sports.

### Experiment:

1. Place cones every 5 feet across the playground.
2. When I blow the whistle sprint as fast as you can.
3. When I blow the whistle again after 20 seconds, stop as quickly as you can.
4. Write down on the table to which cone you made it before you had to stop.
5. We will repeat the experiment 6 times.
6. Can you keep running the same distance each time?

Sprint Number	Which cone did you make it to?	Describe how your body feels.
1		
2		
3		
4		
5		
6		