

Name: _____

Skill Sheet 3-D

Applying Newton's Laws of Motion



In this skill sheet you will use Newton's laws of motion to solve application problems.

1. Reviewing Newton's law of motion

In the table below, state each of Newton's laws of motion. Use your own wording. For each law, describe an example of how each law is illustrated in real life.

Newton's laws of motion	Write the law here in your own words	Example of the law
The first law		
The second law		
The third law		

2. Practice using Newton's laws of motion

1. When Jane drives to work, she always places her purse on the passenger's seat. By the time she gets to work, her purse has fallen on the floor in front of the passenger seat. One day, she asks you to explain why this happens in terms of physics. What do you say?

2. You are waiting in line to use the diving board at your local pool. While watching people dive into the pool from the board, you realize that using a diving board to spring into the air before a dive is a good example of Newton's third law of motion. In the space below, explain how a diving board illustrates Newton's third law of motion.

3. Your shopping cart has a mass of 65 kilograms. In order to accelerate the shopping cart down an aisle at 0.30 m/sec^2 , what force would you need to use or apply to the cart?

4. A small child has a wagon with a mass of 10 kilograms. The child pulls on the wagon with a force of 2 newtons. What is the acceleration of the wagon?