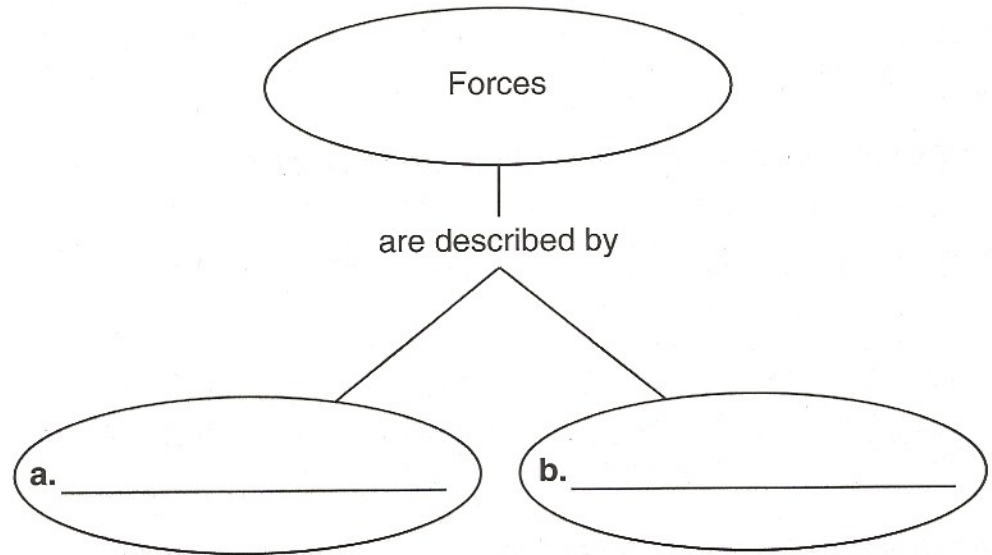


Forces

4. Read the words in the box. Use the words to fill in the concept map about force.

Strength Distance Direction



Combining Forces (pages 335–337)

Key Concept: Unbalanced forces acting on an object result in a net force and cause a change in the object's motion. Balanced forces acting on an object do not change the object's motion.

- Often there is more than one force acting on an object. The total of all the forces acting on an object is called the **net force**.
- Sometimes the net force on an object is 0. This means there are **balanced forces** acting on the object. The object's motion does not change.
- Sometimes the net force does not equal 0. This means there are **unbalanced forces** acting on the object. The object's motion changes.

Forces ▪ *Guided Reading and Study*

The Nature of Force *(continued)*

Combining Forces (pp. 335–337)

5. The overall force on an object after all the forces are added together is called the _____.
6. When two forces act in the same direction, they are _____ together.
7. Adding a force acting in one direction to a force acting in the opposite direction is the same as adding a(n) _____ number and a(n) _____ number.
8. Unbalanced forces can cause an object to change its motion in three ways. What are they?

9. Is the following sentence true or false? Unbalanced forces acting on an object will change the object's motion. _____
10. Equal forces acting on one object in opposite directions are called _____.
11. Is the following sentence true or false? Balanced forces acting on an object will change the object's motion. _____
12. When you add equal forces exerted in opposite directions, the net force is _____.