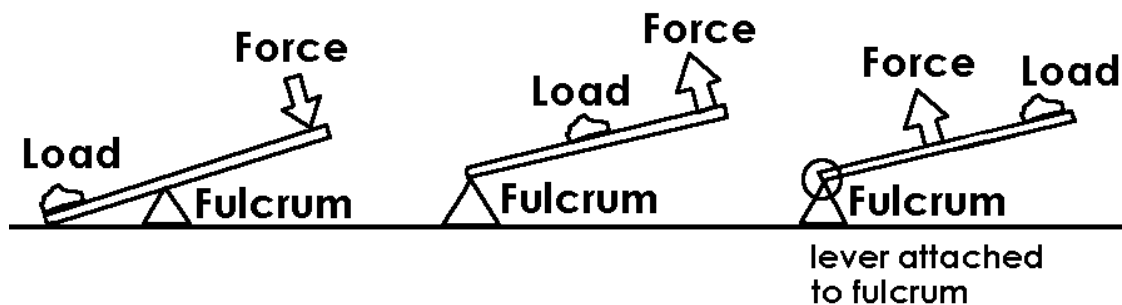


## Science – “Moving the World?” – Learning About Levers

### Reading/Discussion:

There are six classes of simple machines. A lever is one of them. Other simple machines in the lever's family are the wheel and axle and the pulley. Today, we are going to look at levers. A lever is a bar that turns on an unmoving point called a **fulcrum**. When you push or pull on one end of the bar that pressure is called the **force**. The object that is lifted on the other end is called the **load**. There are first class, second class and third class levers. The difference between the three classes depends on where the force is, where the fulcrum is and where the load is. Look at the diagram:



The first picture is a first class lever. An example of this lever is a seesaw.

The second picture is a second-class lever. An example of this lever is a wheelbarrow. The third picture is a third class lever. An example of this lever is a spoon. In most third class levers your hand is the fulcrum, the object you are lifting, for example, the spoon, is where the force is, and the load, for example the food, is at the end

The first two classes of levers make it much easier to lift heavy loads. With these two classes, the closer the load is to the fulcrum, the easier it is to lift. Try it, using a ruler balanced on an eraser. A Greek scientist called Archimedes once said that if you had a big enough lever you could move the world! Do you agree?

Name \_\_\_\_\_

Date \_\_\_\_\_

## Science – “Moving the World?” – Learning About Levers Questions

A: Where is the fulcrum?

Look at the pictures on the right. Can you work out where the fulcrum is in each one of these simple machines? When you have decided, draw a circle around it.

B: What class is it in?

Now look at the diagram again and see if you can decide what class of levers each of the simple machines belong to. Draw a different coloured line from each object to the class number below.

**1**

**2**

**3**



Name \_\_\_\_\_

Date \_\_\_\_\_

## Science – “Moving the World?” – Learning About Levers Answers

### Activity A



### Activity B

1. Scissors – 1<sup>st</sup> class
2. Nutcracker – 2<sup>nd</sup> class
3. Wheelbarrow – 2<sup>nd</sup> class
4. Crowbar – 2<sup>nd</sup> class
5. Tongs – 3<sup>rd</sup> class
6. See saw – 1<sup>st</sup> class
7. Stapler – 2<sup>nd</sup> class
8. Fork – 3<sup>rd</sup> class