**Week 5 - Forces**

**What are forces?**

A **force** can be a **push** or a **pull**. For example, when you push open a door you have to apply a force to the door. You also have to apply a force to pull open a drawer.

You cannot see a force but often you can see what it does. When a force is exerted on an object, it can change the object’s:

* speed
* direction of movement
* shape (for example, an elastic band gets longer if you pull it)



Forces can be contact forces, where objects must touch each other to exert a force. Other forces are non-contact forces, where objects do not have to touch each other. These include:

* gravity
* magnetism
* forces due to static electricity

A force meter, also called a newton meter, is used to measure forces

**Measuring forces**

Forces can be measured using a force meter, also called a newton meter. Force meters contain a spring connected to a metal hook. The spring stretches when a force is applied to the hook. The bigger the force applied, the longer the spring stretches and the bigger the reading.

The unit of force is called the **newton**, and it has the symbol N. The greater the force, the bigger the number, so 100 N is a greater force than 5 N.

**Exercise**

What three things can a force do to an object?

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Give three examples of forces

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What is used to measure force?

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What is the unit of force?

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