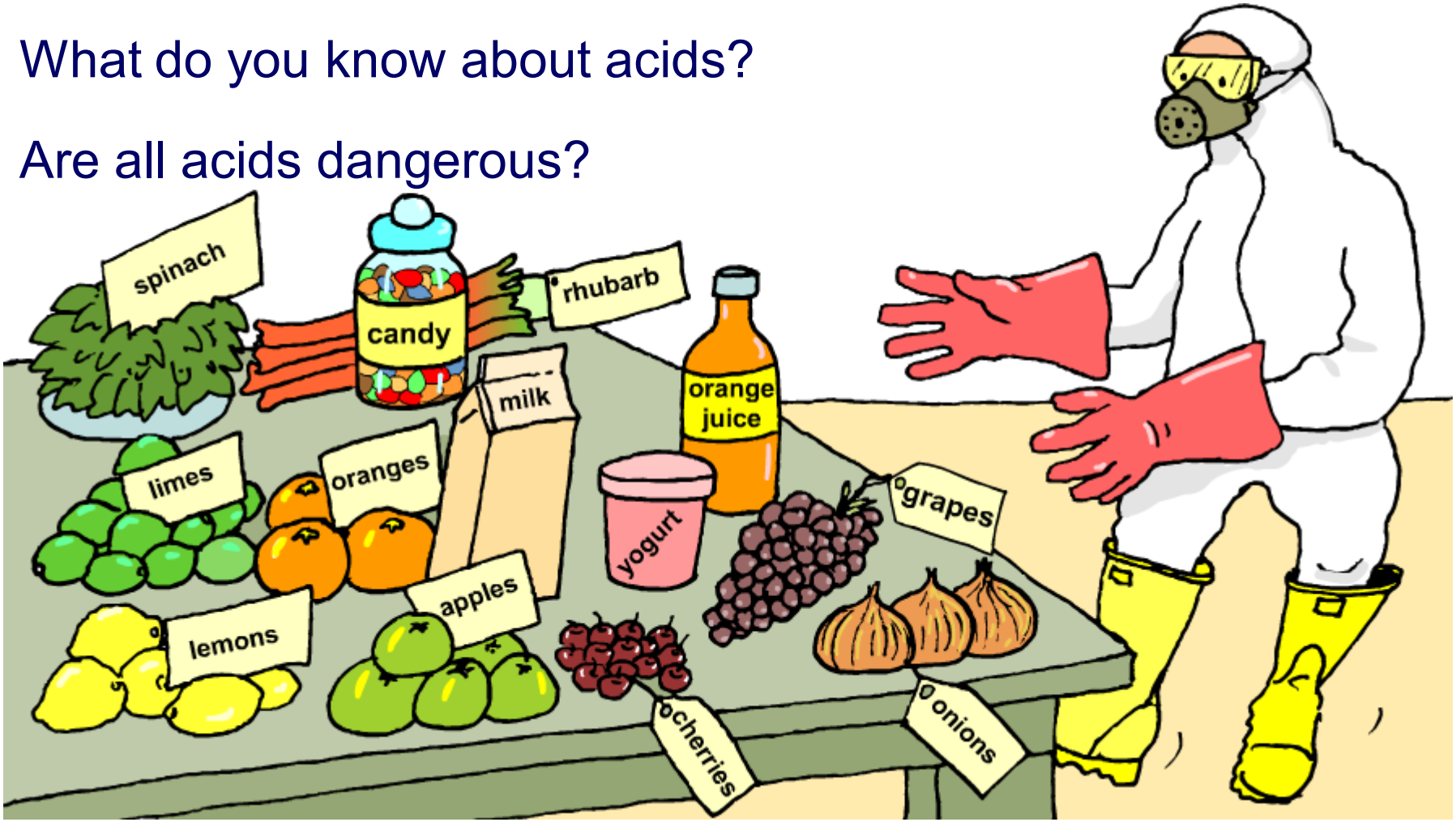
What Are Acids and Alkalis?

What is an acid?

Acids are a group of soluble chemicals.

What do you know about acids?

Are all acids dangerous?



Acid or alkali?

Are these substances acids or alkalis?

acids	alkalis

lemon juice

solve

What is a weak acid?

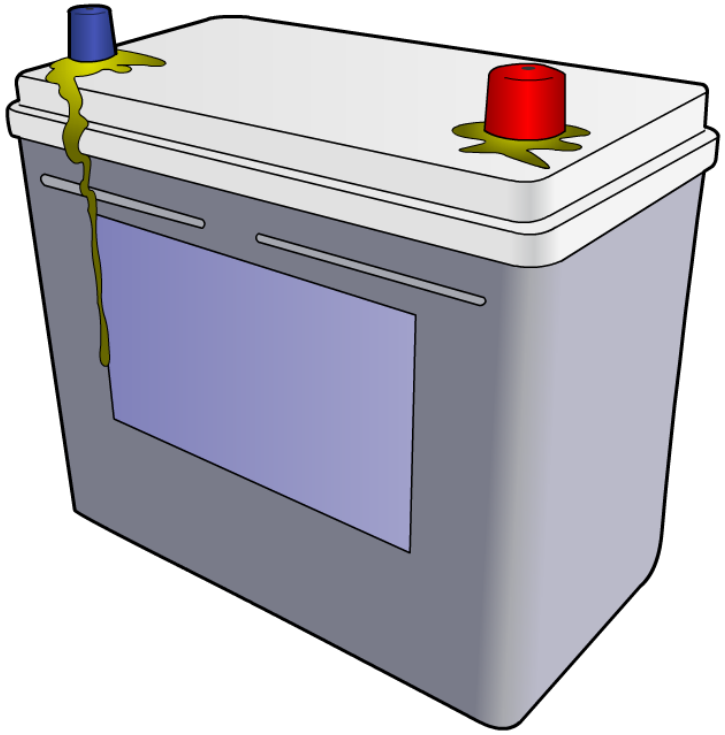
Some acids are found in everyday items such as food, drinks and skincare products.

It is safe to handle these acids, and in some cases even to taste them! These acids are known as **weak acids**.

What is a strong acid?

Some acids, like those found in the laboratory or a car battery, are too dangerous to taste or touch.

These acids are said to be **corrosive** because they can damage other materials by wearing them away.



These are **strong acids**.

What safety precautions should you take when handling a strong acid?

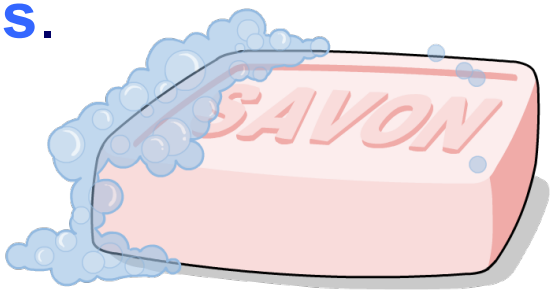
What is an alkali?

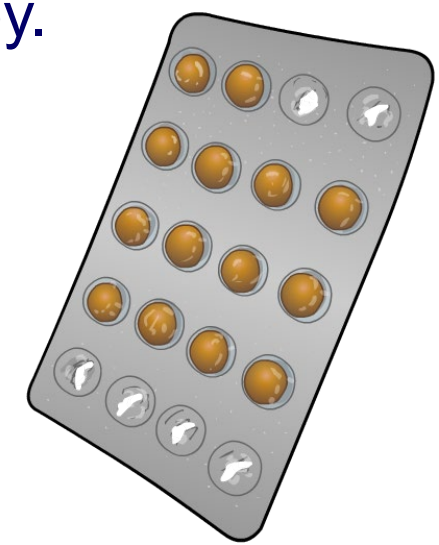
Alkalis are substances that are chemically the opposite of acids.

Weak alkalis are found in soaps and other cleaning materials. They are also used in antacids to treat indigestion.

It is safe to handle these alkalis, which often feel soapy.

These alkalis are **weak alkalis**.





What is a strong alkali?

Some alkalis, like those used in laboratories, or in cleaning materials such as bleach, are too dangerous to touch.

These alkalis are said to be **caustic** because they can burn skin, and damage other materials.

These are **strong alkalis**.

What safety precautions should you take when handling a strong alkali?

What effect do alkalis have on our skin?

Many people suffer from eczema, a condition which can make the skin itchy and sore.

Sometimes this is caused by an allergic reaction to soap or other cleaning materials.

Which chemicals in soap do you think might cause the allergic reaction?

How could you find out what is causing the allergic reaction?

What is a neutral substance?

Neutral substances are neither acidic nor alkaline.

- Pure water is a neutral substance.
- Saltwater, milk, saliva and blood may actually be slightly acidic or alkaline, but are all very close to neutral.

What safety precautions should you take when handling a neutral substance?