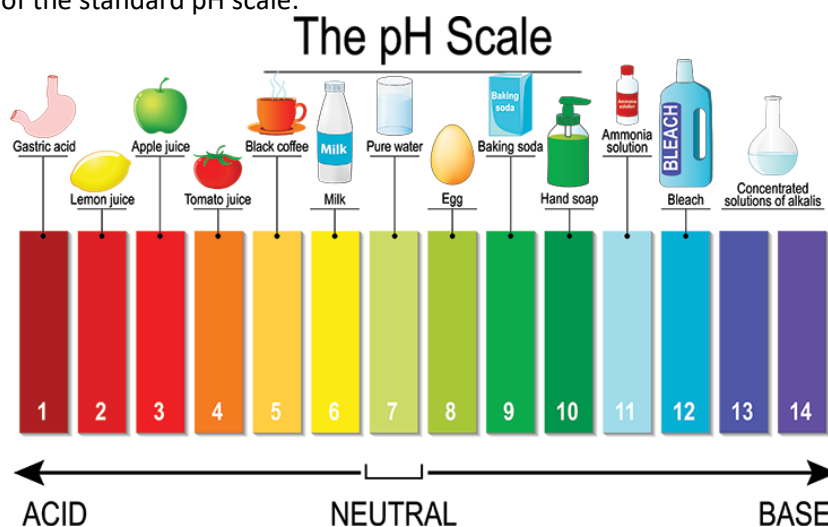


# Can you use everyday ingredients to make an indicator?

You may think that special equipment and chemicals needed - you will investigate to see if this is the case.

## Method

1. Watch a video to remind yourself of the background to pH and indicators:  
<https://www.bbc.co.uk/bitesize/guides/zqd2bk7/video>  
You can also click on the 'revise' tab to read a review of the main points.
2. Your aim is to now make your own indicator at home. Firstly, you will need to choose which plant material you are going to use to make your indicator – you could use one recommended online or investigate your own idea.
3. Then, research online and find your method and make sure you have access to the ingredients and equipment in your kitchen.
4. **Safety (ask an adult for help if needed):**  
**\*Take care when chopping your plant material (be careful with your knife, use a chopping board if you have one, or a plate, on a flat surface)**  
**\*Take care when using hot water (boiling the water, pouring and stirring your mixture)**
5. When you have made your indicator you will then need to test it out.
6. Think carefully about making this a fair test. Scientific method says that you must only change one thing (called independent variable) in order to observe some other property changing (dependant variable) but the hard part is to keep everything else the same (control variables) for what is often called, a fair test.
7. Here is a reminder of the standard pH scale:



Be careful with the pH scale with your indicator though – the colours may be slightly different! Take a look at this for red cabbage:

<https://www.compoundchem.com/2017/05/18/red-cabbage/>

8. Find different things in your home which you can test and find the pH using your indicator – be as creative as you can with what you test out!
9. The more times you test out your indicator the better and make sure you record your observations – you could make notes in a results table and/or take photographs.

Full professional scientist's method can be found at:

<https://edu.rsc.org/resources/making-a-ph-indicator/422.article>