

Acid, alkali or neutral

This task is about identifying the effect of indicators on acid, alkali and neutral substances.

Part A: News from hues

1. Put a drop of red cabbage indicator solution in each spot in the top row of a spotting tile.
2. Cut the red litmus paper into four pieces, place a piece in each spot of the middle row of the spotting tile.
3. Cut the blue litmus paper into four pieces, place a piece in each spot of the bottom row of the spotting tile.

	White vinegar	Baking soda	Water	Nothing
Red cabbage -->	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Red litmus paper -->	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Blue litmus paper -->	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

4. Add one drop of white vinegar to each spot in column 1.
5. Add one drop of baking soda solution to each spot in column 2.
6. Add one drop of water to each spot in column 3.
7. Add nothing to each spot in column 4.
8. Write your results in the circles above.

Results

- a) Use coloured pencils to colour in the spots on the table above to show the colour changes that have occurred.
NOTE: white vinegar is an example of a weak acid, baking soda solution is a weak alkali, and water is a neutral solution.

- b) Complete these sentences

Acids make indicators go _____.

Alkalis make indicators go _____.

Neutral solutions have _____ on the colour of a substance.

- c) Why did one column of the spotting tile have nothing added to it?

Part B: Acid, alkali or neutral

- Test each of the substances you have been given and find out if they are acid, alkali, or neutral.
- Use a similar method to part A. Put a drop of each substance in a spotting tile and then add a drop of red cabbage indicator.

a) Complete this table to show your results.

Substance tested	Colour change?	Acid, alkali, or neutral?
Lemon juice		
Bleach		
Orange drink		
Washing powder		
Water		
Cleaner		

b) Rank the substances you tested from the strongest acid to the strongest alkali.
