

# Acids and Alkalis

## Exam Style Questions 1

1. A pH probe can be used to get an accurate reading from different liquids. An example of a pH probe is shown below.



A variety of solutions were tested and the results are shown in the table below. Put a ✓ in the correct box to show whether the solution was acidic, alkaline or neutral.

Solution	pH reading	Acidic	Alkaline	Neutral
lemon juice	2.2			
toothpaste	9.9			
blood	7.4			
pure water	7.0			
tomato juice	4.4			

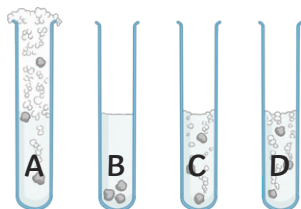
Give a reason why using a pH probe is a better way of determining a solutions pH rather than using a universal indicator. \_\_\_\_\_

Between each test, the probe should be dipped in pure water. Suggest a reason why. \_\_\_\_\_

What is an indicator? \_\_\_\_\_

Name 2 other indicators that could have been used. \_\_\_\_\_

2. A group of students decided to find out whether all metals behaved in the same way when placed in acid.



From the diagram above, state which test tube is showing the greatest reaction and give a reason for your answer. \_\_\_\_\_

Which gas is released when metals react with acids? \_\_\_\_\_

# Acids and Alkalis

## Exam Style Questions 1 Answers

1. A pH probe can be used to get an accurate reading from different liquids. An example of a pH probe is shown below.



A variety of solutions were tested and the results are shown in the table below. Put a ✓ in the correct box to show whether the solution was acidic, alkaline or neutral.

Solution	pH reading	Acidic	Alkaline	Neutral
lemon juice	2.2	✓		
toothpaste	9.9		✓	
blood	7.4		✓	
pure water	7.0			✓
tomato juice	4.4	✓		

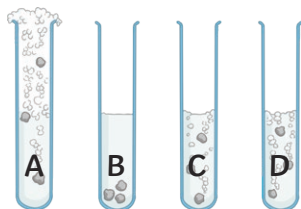
Give a reason why using a pH probe is a better way of determining a solution's pH rather than using a universal indicator. **More accurate result.**

Between each test, the probe should be dipped in pure water. Suggest a reason why. **To make sure it was clean and not contaminated by the liquid before.**

What is an indicator? **An indicator undergoes a change in colour when placed in solutions with differing pHs.**

Name 2 other indicators that could have been used. **Blackberry juice, red cabbage or red and blue litmus paper.**

2. A group of students decided to find out whether all metals behaved in the same way when placed in acid.



From the diagram above, state which test tube is showing the greatest reaction and give a reason for your answer. **Test tube A is the most reactive. It is producing the most bubbles.../ most gas/ most vigorous response.**

Which gas is released when metals react with acids? **Hydrogen.**