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. _____

_____

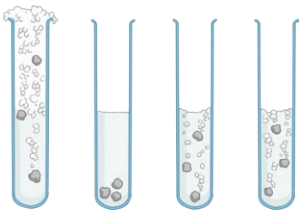
What is an indicator? _____

_____

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 metal was the most reactive and give a reason for your answer. _____

_____

Which gas is released when metals react with acids? _____

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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	✓		

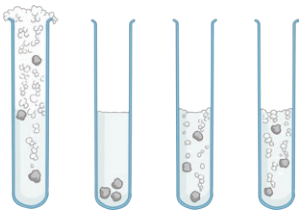
Give a reason why using a pH probe is a better way of determining a solutions pH rather than using a Universal Indicator. **More accurate result.**

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 pH's.**

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 metal was the most reactive and give a reason for your answer. **Calcium, producing the most bubbles/ most gas/ most vigorous response.**

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

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