

Interactive Worksheet: Introduction to Acid and base

Name: _____

Grade: _____

Part 1: Natural (Organic) Acids in Food

Complete the table by identifying the specific organic acid found in each natural source

Natural Source	Organic Acid Present
Vinegar	[Acetic Acid]
Lemon	[Citric Acid]
Orange	[Ascorbic Acid]
Tamarind	[Tartaric Acid]
Tomato	[Oxalic Acid]
Sour Milk (Curd)	[Lactic Acid]
Grapes	[Tartaric Acid]
Apples	[Malic Acid]

Part 2: The Indicator Challenge

Fill in the resulting color change for each indicator when it reacts with an Acid or a Base.

Indicator	Color in Acidic Solution	Color in Basic Solution
Blue Litmus Paper	[Red]	Stays Blue
Red Litmus Paper	Stays Red	[Blue]
Turmeric (Powder/Paper)	Stays Yellow	[Red / Brown]
Phenolphthalein	[Colorless]	[Pink / Magenta]
Methyl Orange	[Red / Pink]	[Yellow]
China Rose (Hibiscus)	[Dark Pink]	[Green]

Part 3: Properties of Acids (True or False)

Tick the correct box for each statement.

Statement	True	False
1. Mineral acids like Sulphuric acid are safe to taste.	☐	☒
2. Organic acids are naturally occurring and generally weak.	☒	☐

3. Acids react with metals to release Carbon Dioxide gas. ☐ ☒
4. Concentrated mineral acids can cause severe burns on the skin. ☒ ☐
5. All substances that taste sour are strong mineral acids. ☐ ☒
6. Diluting an acid involves adding water to the acid very quickly. ☐ ☒

Part 4: Matching the Properties

Draw a line to match the term with its correct description.

Neutralization $\longleftrightarrow$ Reaction between an acid and a base to form salt and water.

Corrosive $\longleftrightarrow$ Property of strong acids that allows them to eat away at surfaces.

Alkali $\longleftrightarrow$ A base that is specifically soluble in water.

Litmus $\longleftrightarrow$ A natural indicator extracted from Lichens.