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Acid - Base Indicator Lab

Review question – Do all indicators work in the same way? Are indicators indefinitely precise?

Introduction – An acid is a sour tasting compound, which contains hydrogen and is mostly solid while at room temperature. Bases on the other hand, are compounds that can sometimes contain a positive hydrogen ion and can be solid or liquid at room temperature.

Observations –

DATA/OBSERVATIONS FOR DISTINGUISHING BETWEEN ACIDS & BASES
VIA VARIOUS INDICATORS

Substance	Litmus Paper (R or B)	PH Strip – Indicate Color & #	Golden Rod Paper (Y or N for color change)	Phenolphthalein (Y or N for color change)	Bogen Universal Indicator Indicate Color	Acid or Base
Vinegar	R	4	N	N	cherry red	acid
Bleach	B	7	Y	Y	olive yellow	neutral
Ammonia	B	10	Y	Y	forest green	base
Orange Juice	R	6	N	N	blood red	acid
Lemon Juice	R	2	N	N	deep red	acid
MOM	B	12	Y	Y	navy	base

Conclusion – Indicators have different types of color changes. Some indicators have one or two color changes. Some are made out of paper but some are made out of liquids. Indicators usually aren't exact so they are estimated.

Vocabulary –

- **Acid** – A molecule that donates protons or (H⁺) ions.
- **Base** – A molecule that accepts protons or (H⁺) ions.
- **Indicator** – A substance that turns one color in the presence of acids and another color in the presence of bases.
- **PH** – A measure of how acidic or basic a substance is.