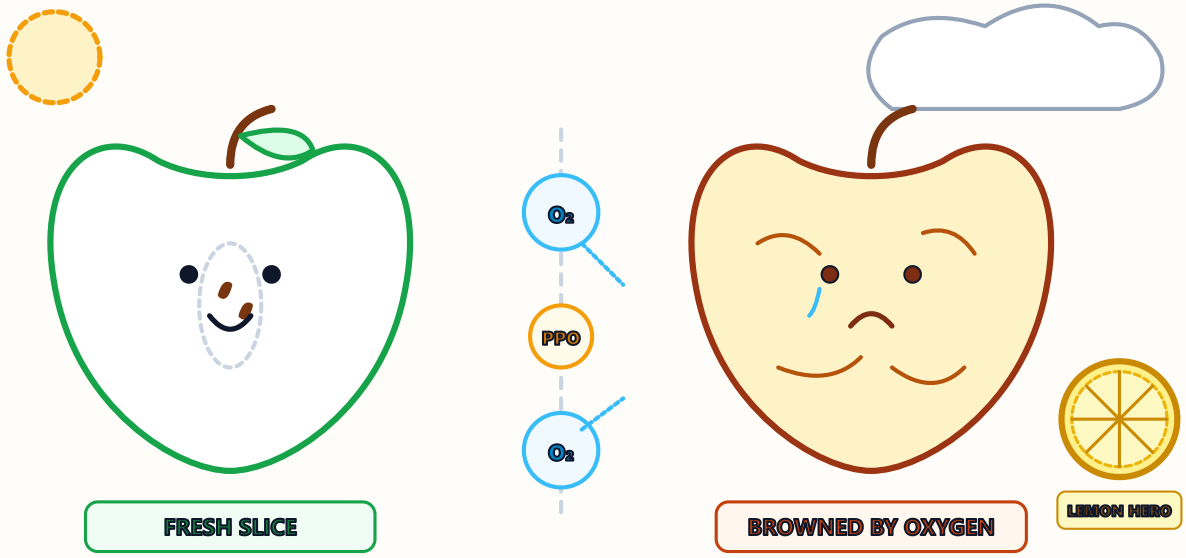
WHY DO SLICED APPLES TURN BROWN?!

A4 Kitchen Experiment & STEM Activity Sheet for Kids • zentomedia.net

KIDS COLORING ZONE



1. Broken Cell Armor
The apple skin acts as armor. Slicing breaks open plant cells, letting PPO enzymes and polyphenols spill out!

2. Oxygen Reaction
PPO enzyme reacts with airborne Oxygen (O2), oxidizing polyphenols into brown Melanin pigment to heal itself!

3. Kitchen Super Shields
Lemon juice (Citric Acid) disables PPO enzymes! Saltwater or plastic wrap completely blocks out oxygen!

KITCHEN EXPERIMENT: 4-DISH APPLE FRESHNESS TEST

Observe slices after 30 minutes and color the results!

Protection Method	Dish 1: Open Air	Dish 2: Plain Water	Dish 3: Saltwater	Dish 4: Lemon Juice
After 5 Minutes	Slight yellow	Still crisp	Very white	Bright & fresh
After 30 Minutes	DARK BROWN	Light brown	CRISP WHITE	PERFECT FRESH!
Freshness Rating	★	★★	★★★★	★★★★★

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