

PHOTOSYNTHESIS and RESPIRATION

LAB-DEMO

BTB = Brom Thymol Blue (yellow in acid, blue in base)

PHOTOSYNTHESIS: Plants in the light *use up* _____ (gas)

Jar #1: BTB + CO₂ $\xrightarrow[\text{in Light}]{\text{Plant}}$ BTB + _____ CO₂
(more/same/less)

color; _____

COLOR: _____

Jar #2: BTB + CO₂ $\xrightarrow[\text{in Light}]{\text{NO Plant}}$ BTB + _____ CO₂
(more/same/less)

color; _____

COLOR: _____

Jar #3: BTB + CO₂ $\xrightarrow[\text{in Dark}]{\text{Plant}}$ BTB + _____ CO₂
(more/same/less)

color; _____

COLOR: _____

RESPIRATION: Animals AND Plants (in the **dark**) *Produce:* _____ (gas)

Jar #4: BTB + *NO* CO₂ $\xrightarrow[\text{in Dark}]{\text{Plant}}$ BTB + _____ CO₂
(more/same/less)

color; _____

COLOR: _____

Jar #5: BTB + *NO* CO₂ $\xrightarrow[\text{NO Animal}]{\text{NO Plant}}$ BTB + _____ CO₂
(more/same/less)

color; _____

COLOR: _____

Jar #6: BTB + *NO* CO₂ $\xrightarrow[\text{in Dark}]{\text{Animal}}$ BTB + _____ CO₂
(more/same/less)

color; _____

COLOR: _____