

Lab Materials by Module

Module	Lab	Materials Needed	Assignment Type
Module 1	Vaccine Survey (Extra Credit, 20 pts)	No physical materials required. Questionnaire (paper or digital) and 10 willing participants.	Extra Credit
Module 2	Naked Egg (Required, 25 pts)	Raw egg(s), white vinegar, saucer/plate/bowl. Consider buying 2 eggs in case one breaks early.	Required
Module 2	Microscope — Onion/Cheek Cells (Extra Credit, 20 pts)	Microscope (≈\$50 at Walmart/Amazon/Target), microscope slides, cover slips, toothpick (for cheek cells) or an onion, water.	Extra Credit
Modules 2–3	Sourdough Starter (Required, 25 pts + 5 pt EC for early start)	All-purpose flour, non-chlorinated water (distilled or bottled — check label to confirm no chlorine; do not use tap water), glass jar, kitchen scale or measuring cups. Optional experiment supplies of your choice: vinegar, sugar, food coloring, etc.	Required
Module 4	DNA Extraction (Required, 25 pts)	Clean small glass, saliva, dish soap, table salt, pineapple juice (or meat tenderizer, or contact lens cleaning solution), rubbing alcohol, drinking straw, toothpick. Chill the rubbing alcohol before the lab. Pineapple juice is the most accessible enzyme source.	Required
Modules 7–8	Winogradsky Column (Required — Module 7: 25 pts, Module 8: 50 pts)	2-liter plastic bottle with top cut off, scoop of dirt or potting soil, water, newspaper or paper towel. Eggshells to accelerate growth. Start early in Module 7 — allow at least one week for the column to develop.	Required