ENLIGHTIUM ACADEMY

PRINTABLE SUPPLY LIST FOR

Biology

Standard Course

UNIT	PROJECT	BOOK / ITEM	NOTES

		• Access to research materials (internet, local library, etc.)
		• A metric/imperial ruler
		• A stopwatch or a timer (smartphone app is OK)
		• Word processing program. Examples include
		  • Microsoft Word© (purchase required, but often included with PC computers)
		  • Apple Pages© (available free on most Macbook computers)
		  • OpenOffice Writer© (open-source program available for free, PC and Macbook)
		  • Google Docs as a browser alternative
		• Spreadsheet processing program. Examples include
		  • Microsoft Excel© (purchase required, but often included with PC computers, also available for Macbooks)
		  • Apple Numbers© (available on most Macbook computers)
		  • OpenOffice Calc© (open-source program available for free, PC and Macbook)
		  • Google Sheets as a browser alternative
		• Access to a printer
			General purchases.

1. *Taxonomy- Key to Organization*	**Activity:** *Taxonomy*	• 8 - 10 items or people to use to create a dichotomous key (ex. Foods in the kitchen, pictures of plants or animals, etc.)	
2. *Chemistry of Life*	**Lab:** *Protein Denaturation*	• Four eggs • Two cups of milk (preferably whole/full cream, or made from powdered milk) • Your own hair from a hairbrush or comb • Small saucepan • Mixing bowl • Baking tray or cookie sheet • Aluminum foil • Candy thermometer or cooking/meat thermometer • Stove/oven (with oven mitts/pot holders)	
3. *Cells*	**Lab:** *Osmosis Activities*	• Three large eggs (+one or more extras) • White vinegar (cheap vinegar will do) • Three large cups • One plate • Large slotted spoon • Tap water • Corn syrup • Liquid measuring devices: cups and tablespoons • Kitchen balance	
4. *Cells Division and Reproduction*	**Activity:** *Examining the Phases of Mitosis*	• Image of dividing cells (within assignment) • Tally chart (within assignment) • Blank graph (within assignment) • Colored pens/pencils	
5. *Genetics- God's Plan of Inheritance*	**Lab:** *Exploring Molecular Genetics*	• 100 radish seeds • Potting soil (One-lb bag) • Ten small plates or tins • Microwave • Microwave safe plate • Water and a dropper (or spray bottle) • Sunny windowsill or table • Marker and tape • Large cardboard box	

7. *Plants- Green Factories*	**Lab:** *Photosynthesis*	• Elodea or any aquatic plant • Online source here: https://www.amazon.com/Anacharis-Tropical-Aquarium-Aquatic-New/dp/B01CXKVU7Q • Other aquatic plants may work as an alternative to Elodea. Message instructor for advice if you cannot acquire Elodea at your location • Lamp • Knife or scissors • Kitchen scale	
8. *Human Anatomy and Physiology*	**Activity:** *Chicken Wing Dissection*	• Raw chicken wing • Dissecting scissors (small, sharp scissors or kitchen shears will work) • Online source for dissecting kit - not necessary but has many of the appropriate materials (talk to your teacher) • Forceps or large tweezers • Blunt probe (wooden skewer or dull wooden pencil will work) • Cutting board • Gloves, goggles, apron	

Honor Course

UNIT	PROJECT	BOOK / ITEM	NOTES
3. *Cells*	*Introducing the Microscope*	• Physical microscope	This is optional. The project is virtual so students can use an online resource or, if they prefer, a physical microscope instead
5. *Genetics- God's Plan of Inheritance*	**Lab:** Probability	• Two coins • Box (shoebox will work)	

8. *Anatomy and Physiology*	**Activity:** Heart Rate	• A partner • Stopwatch (phone app will work)	
9. *Ecology, Pollution, and Physiology*	**Activity:** Population Ecology	• Ecology simulator (talk to your teacher for resources)	
9. *Principles and Applications of Biology*	**Lab:** Create a Product (Principles of Biology)	• Supplies depend on what product students choose to create; options will include creating a children's book, essay, speech, song, etc. • Might require audio or recording devices. Message the instructor in the helpbox if you need more guidance.	