

eCore BIOL 1011K Lab Checklist

Units and Labs	eScience supplied materials	Self-supplied materials	eScience ref #
Unit 1			
General Biology and Lab Safety (exercise 1, experiment 1)	5mL 4.5% Acetic Acid (vinegar) (1) 250 mL Beaker (1) 10mL Graduated Cylinder (1) 100 mL Graduated Cylinder 8 Litmus Test Strips (Neutral) Permanent Marker 2 Pipettes 0.5 g Sodium Bicarbonate (baking soda) 2 Weigh Boats	Water	Lab 2
Introduction to Microscope (Experiments 1, 2)		Computer Internet access	Lab 4
Unit 2			
The Chemistry of Life (Experiment 1)	(2) 250 mL Beakers 25 Drops Biuret Solution (1) Knox Gelatin Packet 5mL 1% Glucose Solution (1) 10 mL Graduated Cylinder (1) 100mL Graduated Cylinder Permanent Marker 5 Pipettes 5 Test Tubes (Glass) Test Tube Rack	Tap Water Hot Water Egg White	Lab 5

	5 mL Unknown Solution		
Unit 3			
Osmosis (Experiments 1,2)	<p>Experiment 1 Acetic Acid (Vinegar) 4 Pieces of Aluminum Foil (4) 100 mL Beakers 10 mL Graduated Cylinder 100 mL Graduated Cylinder 100% Sugar Solution (Corn Syrup) Stirring Rod</p> <p>Experiment 2 (1) 100 mL Graduated Cylinder Permanent Marker 2 Pipettes Ruler 16 g Sodium Chloride (Salt) 4 Test Tubes Test Tube Rack</p>	<p>Experiment 1 Distilled Water 4 Eggs</p> <p>Experiment 2 Cutting Board Kitchen Knife 2 Potatoes (these must be different types; e.g. russet, Idaho, sweet, etc.) Stopwatch Water</p>	Lab 7
Diffusion (Experiments 1,2)	<p>Experiment 1 (1) 60 mL Corn Syrup Bottle Red and Blue Dye Solutions (Blue molecular weight = 793 g/mole; Red molecular weight = 496 g/mole) (1) 9 cm Petri Dish (top & bottom halves) Ruler</p> <p>Experiment 2 (5) 100 mL Beakers 10mL 1% Glucose Solution 4 Glucose Test Strips (1) 100 mL Graduated Cylinder 4mL 1% Iodine-Potassium Iodide, IKI</p>	<p>Experiment 1 Stopwatch Tape</p> <p>Experiment 2 Stopwatch Water Scissors</p>	Lab 6

	5mL Liquid Starch 3 Pipettes 4 Rubber Bands 15.0 cm Dialysis Tubing		
Unit 4			
Enzyme (Experiments 1,2)	Experiment 1 (1) 2 oz. Bottle (empty) (1) 100 mL Graduated Cylinder 30 mL Iodine-Potassium Iodide, IKI Permanent Marker Ruler 2 Spray Lids 30 mL Liquid Starch Experiment 2 3 Balloons (2) 250 mL Beakers 30 mL 3% Hydrogen Peroxide Measuring Spoon Permanent Marker Ruler 20 cm String 3 Test Tubes (Glass) Test Tube Rack Thermometer Yeast Packet Funnel	Experiment 1 Cutting Board 2 Food Products (e.g., sweet potato, apple, potato, corn, etc) Ginger Root Kitchen Knife Paper Towel Saliva Sample Tap Water Experiment 2 Hot water bath Stopwatch	Lab 8
Cellular Respiration (Experiments 1,2)	Experiment 1 (4) 250 mL Beakers 15 mL 1% Glucose Solution	Experiment 1 Stopwatch Warm Water	Lab 9

	<p>(1) 100 mL Graduated Cylinder Measuring Spoon 1 g. Packets of Equal, Splenda and Sugar Permanent Marker 3 Pipettes 5 Respirometers (two test tubes the fit into each other – 5 plastic and 5 glass) Ruler 15 mL 1% Sucrose (Sugar) Solution Test Tube Rack 1 Yeast Packet</p> <p>Experiment 2</p> <p>(6) 250 mL Beakers 24 mL Bromothymol Blue Solution 100 Kidney Beans 6 Medicine Cups (small, clear, plastic cups) 15cm Parafilm Permanent Marker 100 Pinto Beans 1 Pipette 6 Rubber Bands</p>	<p>Experiment 2 Water Paper Towels</p>	
Unit 5			
Photosynthesis (Experiment 1)	<p>10 mL 4.5% Acetic Acid 10 mL Acetone 30 cm Aluminum Foil (4) 100 mL Beakers (1) 250 mL Beaker 20 cm Cheesecloth 3 mL 1% 2,6-Dichloroindophenol, DPIP (1) 12x12 Chromatography Paper</p>	<p>Cutting Board Kitchen Knife Light Source Pencil Quarter Scissors Spinach Leaves (Fresh) Tape</p>	Lab 20

	(1) 100 mL Graduated Cylinder 10 mL Mineral Oil 3 mL 0.1 M Phosphate Buffer 8 Pipettes (1) Resealable Plastic Bag Rubber Band Ruler Wooden Stir Stick 100 mL 0.5 M Sucrose Solution 3 Test Tubes (Glass) Test Tube Rack	Water	
Unit 6			
Mitosis (Experiments 1,2,3)	Experiment 1 Onion Root Tip Digital Slides Experiment 2 2 Sets of Different Colored Pop-it Beads (8) 5-Holed Pop-it Beads	Experiment 3 Computer Internet Access	Lab 11
Unit 7			
Meiosis (Experiments 1,2)	2 Sets of Different Colored Pop-it® Beads (8) 5-Holed Pop-it® Beads		Lab 12
Unit 8			
Mendelian Genetics (Experiments 1)	Blue Beads Green Beads Red Beads Yellow Beads (2) 100 mL Beakers Permanent Marker		Lab 14
Unit 9			

DNA and RNA (Experiments 1,2)	<p>Experiment 1 Red Beads Blue Beads Yellow Beads Green Beads</p> <p>Experiment 2 Blue beads Green beads Red beads Yellow beads Pop-it® beads (8 different colors)</p>	<p>Experiment 2 Pen or pencil</p>	Lab 13
Unit 10			
Biomolecular Techniques (experiment 1, experiment 2 - optional, experiment 3)	<p>Experiment 1 (1) 100 mL Beaker Cheesecloth 10mL Graduated Cylinder Funnel Measuring Spoon 1 Resealable Bag 1 Rubber Band (1) 50 mL Standing Test Tube Stir Rod DNA Extraction Solution 5 mL Ethanol</p> <p>Experiment 2 10 Pop-it® Beads (First Color) 9 Pop-it® Beads (Second Color) 8 Pop-it® Beads (Third Color) 6 Pop-it® Beads (Fourth Color)</p>	<p>Experiment 1 Cutting Board Fresh soft fruit (strawberry, grape or banana) Drinking glass or bowl Kitchen Knife Scissors Water</p> <p>Experiment 2 Colored Pencils</p> <p>Experiment 3 Computer Internet Acces</p>	Lab 14 General Biology