

Exploring Biotechnology - Course AU01  
Agriculture Education  
Equipment and Materials List

The list is a guideline to equip a program to meet the needs of a class of 24 students. Multiple classes may use the same materials, except where noted one per student in the program.

Classroom/Lab with Tables for 24 students  
PPT projector – 1 per facility  
Smartboard – 1 per facility  
Computers - minimum of 1 per 3 students  
Curtains (4) – safety partitions to quarantine areas  
Cheese cloth (some fabric will substitute)  
Digital photography equipment – 1 per facility  
Document camera – 1 per facility  
Electrophoresis machines – 1 per facility  
Flow hoods – 4 per facility  
Greenhouse – minimum size should be 12' x 16'  
Balance (Triple Beam) – 4 per facility  
Beakers – 4 dozen per facility  
Beaker Brush – minimum of 1 dozen per facility  
Bunsen burner – 1 per facility  
Burette – minimum of 2 dozen per facility  
Centrifuge – 1 per facility  
Concave microscope slides – minimum of 4 dozen per facility  
Crucible – minimum of 4 per facility  
Face shield (12) – minimum of 1 per 2 students  
Fire Extinguisher – 1 per facility  
First Aid Kit – 1 per facility  
Flask – 4 dozen per facility  
Forceps (12) – minimum of 1 per 2 students  
Funnel – 2 dozen per facility  
Graduated cylinder – 2 dozen per facility  
Grafting tool (6) – minimum of 1 per 4 students  
Hedge shears (6) – minimum of 1 per 4 students  
Hoe – 6 per facility  
Hot plate (12) – minimum of 1 per 2 students  
Hot water bath (12) – minimum of 1 per 2 students  
Implant gun – 1 per facility  
Incubator – 2 per facility  
Lab aprons (12) – minimum of 1 per 2 students  
Lab coats (12) – minimum of 1 per 2 students  
Liter container – 6 per facility  
Medicine dropper – 4 dozen per facility  
Microscopes (12) - minimum of 1 per 2 students  
Microscope cover slip – minimum of 4 dozen per facility

Exploring Biotechnology - Course AU01  
Agriculture Education  
Equipment and Materials List

Microwave oven – 1 per facility  
Monocular microscope – 2 per facility  
Mortar – 6 per facility  
Pestle – 6 per facility  
Petri dish – 4 dozen per facility  
pH meter – 6 per facility  
Pint container – 1 dozen per facility  
Pipette, disposable – 4 dozen per facility  
Pipette pump – 4 dozen per facility  
Planting bar – 2 per facility  
Planting trowel – 1 dozen per facility  
Pruning shears – 1 dozen per facility  
Quart container – 1 dozen per facility  
Rake – 6 per facility  
Refrigerator – 1 per facility  
Respirator – 2 per facility  
Rubber gloves – 2 dozen per facility  
Ruler (24) – 1 per student  
Safety glasses – 3 dozen per facility with a minimum of 1 per student  
Safety goggles – 3 dozen per facility with a minimum of 1 per student  
Scalpel – 2 dozen per facility  
Shovel – 6 per facility  
Soil auger – 2 per facility  
Soil thermometer – 6 per facility  
Stirring rod – 4 dozen per facility  
Syringe – 4 dozen per facility  
Test tubes – 4 dozen per facility  
Test tube brush – 2 dozen per facility  
Test tube rack – 1 dozen per facility  
Thermometer – 2 dozen per facility  
Wheel barrow – 1 per facility

Exploring Biotechnology - Course AU01  
Agriculture Education  
Equipment and Materials List

The following supply list is not intended to be all inclusive. However, this list is a guide for getting the program started.

Agar or agarose gel – 1 dozen containers  
Colored dyes – 1 dozen containers  
Disposable boots – 1 box per facility  
Distilled water – 4 gallons per facility  
Dust mask – 1 box per facility  
Freezer bags (quart size) – 4 dozen per facility  
Pots – 4 dozen  
Potting soil – 6 cubic feet  
Rubbing alcohol – 6 gallons per facility  
Stain, methylene blue – 2 dozen per facility