

**STUDENT LEARNING OBJECTIVES
PHASE V
A CLOSER LOOK INSIDE**

Lesson V-1: Cells

- V-1. Students will name the parts of a cell.
- V-2. Students will describe the functions of the parts of a cell.

Lesson V-2: Cells: Functions and Varieties

- V-3. Students will describe the functions of various kinds of human cells.
- V-4. Students will compare and contrast various cells.
- V-5. Students will demonstrate how nutrients and oxygen get into and out of a cell.

Lesson V-3: Egg Dissection

- V-6. Students will review the ways nutrients move into and out of a cell.
- V-7. Students will compare the anatomy of an egg with that of a typical cell.

Lesson V-4: Blood

- V-8. Students will list the components of blood: plasma, red blood cells, white blood cells, and platelets.
- V-9. Students will describe the functions of red blood cells, white blood cells, and platelets.
- V-10. Students will explain the ways white blood cells fight germs.

Lesson V-5: Fighting Germs

- V-11. Students will list ways germs may enter the body.
- V-12. Students will explain how the body fights against germs.
- V-13. Students will design a plan for helping themselves avoid illness.

**MATERIALS/RESOURCES
PHASE V
A CLOSER LOOK INSIDE**

Following each item listed, the number of the lesson where the item is used is provided for your reference. For example, “L-V-2” means the item is used in “Lesson 2 of Phase V.” “S” means the item is used in a station.

EQUIPMENT

Overhead projector, L-V-1
Filmstrip projector, L-V-1, L-V-4 (Optional)
Cassette player, L-V-1, L-V-2 (S-I), L-V-4 (Optional)
Stove or hot plate, L-V-2 (S-III)
VCR and Monitor, L-V-4 (Option 2)

RESOURCES

Filmstrips and Cassettes, Videos

Filmstrip and Cassette: *What Is a Cell?* OR Video: *Bill Nye the Science Guy: Cells*, L-V-1
Filmstrip and Cassette: *My Blood, Your Blood, His Blood, Her Blood* OR Video: *All About Blood and the Heart*, L-V-4

Audio Cassettes

The Human Cell, L-V-2 (S-1)

Book

The Chicken and Egg, L-V-3 (Integration Idea)

Student Worksheets

What Is a Cell? OR Life: Brought to You by Cells, L-V-1
The Human Cell, L-V-2 (S-I)
Cell Structure, L-V-2 (S-II)
A Cell Model, L-V-2 (S-III)
Diffusion Experiment Instruction Card, L-V-2 (S-IV), L-V-3
Filtration Experiment Instruction Card, L-V-2 (S-IV), L-V-3
Osmosis Experiment Instruction Card, L-V-2 (S-IV), L-V-3
Blood OR In the Flow, L-V-4
Fighting Germs, L-V-5

Teacher Keys

What Is a Cell? OR Life: Brought to You by Cells, L-V-1
The Human Cell, L-V-2 (S-I)
Cell Structure, L-V-2 (S-II)
A Cell Model, L-V-2 (S-III)
Diffusion Experiment Instruction Card, L-V-2 (S-IV)
Filtration Experiment Instruction Card, L-V-2 (S-IV)

Osmosis Experiment Instruction Card, L-V-2 (S-IV)
Blood OR In the Flow, L-V-4
Fighting Germs, L-V-5

Teacher References

Audio script/Teacher's Guide for *What Is a Cell?* L-V-1
Sample Family Letter Inviting Family Members to Volunteer, L-V-1
Using Station Activities, L-V-2
Egg Dissection, L-V-3
What Is Blood? L-V-4
Microviewer Instruction Card, L-V-5

Family Resource Sheet

A Closer Look Inside, L-V-5

Miscellaneous

Station Direction Cards I through IV, L-V-2 (S-I, II, III, IV)
Microviewers, five, L-V-2 (S-II), L-V-5
Microslide set, "Cell Structure," five sets, L-V-2 (S-II)
Microslide set, "Harmful and Helpful Bacteria," L-V-5
Microslide set, "Body Defenses Against Infection," L-V-5

REALIA

Eggs, L-V-1, L-V-2 (S-IV), L-V-3
Plastic wrap, L-V-1
Rice, uncooked, L-V-1
Pencils or pens, L-V-1, L-V-2 (S-I, II, III, IV), L-V-3, L-V-4, L-V-5
Crayons, L-V-2 (S-II)
Baggies, L-V-2 (S-III)
Gelatin, clear, L-V-2 (S-III)
Water, L-V-2 (S-III, IV)
Pot, L-V-2 (S-III)
Measuring cups and spoons, L-V-2 (S-III)
String, L-V-2 (S-III)
Cologne, L-V-2 (S-III)
Starch, L-V-2 (S-III)
Clay, L-V-2 (S-III)
Iodine, L-V-2 (S-III)
Scissors, L-V-2 (S-III)
Clear drinking glasses, one per student, L-V-2 (S-III)
Sugar, L-V-2 (S-IV)
Clear drinking glasses, twelve, L-V-2 (S-IV)
Coffee, L-V-2 (-IV)
Paper coffee filters, four, L-V-2 (S-IV)
Rubber bands, four, L-V-2 (S-IV)
Vinegar, L-V-2 (S-IV)
Sharp tack or nail or knife, L-V-2 (S-IV)
Cell Models (from Lesson V-2), L-V-3
Diffusion experiment (from Lesson V-2), L-V-3
Osmosis experiment (from Lesson V-2), L-V-3
Paper bowls, one per student, L-V-3
Paper towels, L-V-3