

# Scope and Sequence

Pretest and Posttest 1

Basics of Life	
Science Cards	Vocabulary
1 Characteristics of Organisms	organism, cell, reproduction, stimulus
2 Classification	taxonomy, binomial nomenclature, genus, species
3 Kingdoms of Life	kingdom, prokaryote, eukaryote
4 Chemistry of Life	carbohydrate, lipid, nucleic acid, protein
5 Cell Theory	magnification, theory, organization
6 Animal Cells	cytoplasm, nucleus, cell membrane, vacuole
7 Plant Cells	cell wall, chloroplast, chlorophyll
8 Cell Membranes	permeable, diffusion, osmosis, active transport
9 Cell Energy	respiration, mitochondria, organelle
10 Cell Reproduction	mitosis, interphase, chromosome, cytokinesis
11 Viruses	virus, host cell, vaccine
Laboratory Activity 1: Examining Cells (pages 77–79)	
Build Your Vocabulary: Observing Cells (page 76)	

Pretest and Posttest 2

From Bacteria to Plants	
Science Cards	Vocabulary
12 Bacteria	bacteria, flagellum, pathogen, binary fission
13 Beneficial Bacteria	symbiosis, decomposer, bioremediation
14 Protists	unicellular, heterotroph, autotroph, algae
15 Fungi	spore, multicellular, hyphae
16 Plants	vascular tissue, cuticle, carbon dioxide, cellulose
17 Photosynthesis	pigment, chemical energy, photosynthesis, chemical change
18 Mosses	nonvascular plant, rhizoid, gametophyte, sporophyte
19 Ferns	vascular plant, frond, rhizome
20 Seed Plants	seed, xylem, phloem, stomata
21 Cone-Bearing Plants	gymnosperm, cone, pollen, pollination
22 Flowering Plants	angiosperm, flower, fruit, fertilization
23 Plant Adaptations	adaptation, nutrient, petal, nectar
24 Plant Behaviors	hormone, tropism, dormant
Laboratory Activity 2: Culturing Bacteria (pages 81–83)	
Build Your Vocabulary: Bacteria (page 80)	

### Animals

Science Cards	Vocabulary
25 Characteristics of Animals	phylum, vertebrate, invertebrate
26 Symmetry	bilateral symmetry, radial symmetry, asymmetry
27 Invertebrates	gut, coelom
28 Sponges and Cnidarians	sponge, cnidarian, polyp, medusa
29 Worms	parasite, host, segment, closed circulatory system
30 Mollusks	mollusk, gills, open circulatory system
31 Arthropods	arthropod, appendage, antenna, exoskeleton
32 Insects	thorax, abdomen, nymph, pupa
33 Echinoderms	endoskeleton, water vascular system, regeneration
34 Vertebrates	chordate, notochord, ectotherm, endotherm
35 Fish	cartilage, scale, swim bladder
36 Amphibians	amphibian, estivation, tadpole
37 Reptiles	reptile, embryo, amniotic egg
38 Birds	bird, contour feather, lift, down feather
39 Mammals	mammal, mammary gland, incisor, canine
40 Diversity of Mammals	gestation period, monotreme, marsupial, placental
41 Animal Adaptations	physical adaptation, camouflage, mimicry
42 Metamorphosis	metamorphosis, larva
43 Animal Behaviors	instinct, learned behavior, conditioning
Laboratory Activity 3: Investigating Arthropods (pages 85–87)	
Build Your Vocabulary: Arthropods (page 84)	

### Humans

Science Cards	Vocabulary
44 Organization Levels	tissue, organ, organ system, homeostasis
45 Healthy Living	aerobic, body composition, anaerobic, nutrition
46 Nutrition	vitamin, mineral, fats
47 Cardiovascular System	artery, vein, capillary, blood pressure
48 Blood	hemoglobin, plasma, platelet
49 Immune System	antigen, antibody, immunity
50 Digestive System	digestion, enzyme
51 Respiratory System	bronchi, alveoli, diaphragm
52 Excretory System	excretion, urine
53 Skeletal System	calcium, marrow, joint, ligament
54 Nervous System	neuron, synapse, central nervous system, peripheral nervous system

# Scope and Sequence

		<b>Humans (continued)</b>	
<b>4</b>	<b>55</b> Muscular System	smooth muscle, cardiac muscle, skeletal muscle	
	<b>56</b> Skin	epidermis, melanin, dermis	
	<b>57</b> Endocrine System	gland, hormone, target cell	
	<b>58</b> Reproductive System	testis, sperm, ovary, egg	
	<b>59</b> Microscopes	microscope, magnification, electron microscope	
	Laboratory Activity 4: Your Cardiovascular System (pages 89–91)		
Build Your Vocabulary: Cardiovascular System (page 88)			
		<b>Genetics and Heredity</b>	
<b>5</b>	<b>Science Cards</b>	<b>Vocabulary</b>	
	<b>60</b> Asexual Reproduction	asexual reproduction, mitosis, budding	
	<b>61</b> Sexual Reproduction	sexual reproduction, meiosis, zygote	
	<b>62</b> Genetics	gene, allele, dominant, recessive	
	<b>63</b> Patterns of Heredity	genotype, phenotype, homozygous, heterozygous	
	<b>64</b> DNA and RNA	DNA, RNA, mutation	
	<b>65</b> Natural Selection	natural selection, variation, adaptation	
	<b>66</b> Adaptations Over Time	evolution, gradualism, punctuated equilibrium	
	<b>67</b> History of Life	fossil, fossil record, extinct	
	<b>68</b> Evidence for Evolution	embryology, homologous, vestigial structure	
	<b>69</b> Human Genome Project	genome, Human Genome Project, cloning	
Laboratory Activity 5: Making Fossils (pages 93–95)			
Build Your Vocabulary: Fossils (page 92)			
		<b>Ecology</b>	
<b>6</b>	<b>Science Cards</b>	<b>Vocabulary</b>	
	<b>70</b> Environment	environment, habitat, biotic factors, abiotic factors	
	<b>71</b> Parts of Ecosystems	ecosystem, population, community, ecology	
	<b>72</b> Changing Populations	immigration, limiting factor, carrying capacity, population density	
	<b>73</b> Predators and Prey	predator, prey	
	<b>74</b> Symbiotic Relationships	parasitism, mutualism, commensalism	
	<b>75</b> Competition and Niches	resource, niche, competition	
	<b>76</b> Food Webs	producer, consumer, food web	
	<b>77</b> Energy Pyramids	herbivore, carnivore, omnivore, energy pyramid	
	<b>78</b> Carbon Cycle	carbon cycle, gas, oxygen	
<b>79</b> Nitrogen Cycle	nitrogen cycle, nitrogen fixation, nodules		

**Ecology (continued)**

<b>80</b> Succession	succession, pioneer species
<b>81</b> Land Biomes	biome, climate, precipitation
<b>82</b> Aquatic Biomes	wetland, estuary, intertidal zone, coral reef
<b>83</b> Tracking Devices	tracking devices, migration, Global Positioning System

Laboratory Activity 6: How Much Does Energy Cost? (pages 97–99)

Build Your Vocabulary: Energy Transfer (page 96)

**Humans and the Environment**

<b>Science Cards</b>	<b>Vocabulary</b>
<b>84</b> Resources and Pollution	natural resource, renewable resource, nonrenewable resource, pollution
<b>85</b> Forests and Fisheries	reforestation, fishery, aquaculture
<b>86</b> Biodiversity	biodiversity, endangered species, introduced species, native species
<b>87</b> Land Resources	erosion, nutrient depletion, hazardous waste
<b>88</b> Land Conservation	crop rotation, composting, land reclamation, recycling
<b>89</b> Earth's Atmosphere	fossil fuel, ozone layer, greenhouse effect
<b>90</b> Water Resources	groundwater, acid rain, wastewater treatment

Laboratory Activity 7: The Effects of Acid Rain (pages 101–103)

Build Your Vocabulary: Acid Rain (page 100)

**6****Pretest and Posttest 7**