



**SCHOLASTIC CLASSROOM AND LIBRARY PUBLISHING
NEW YORK CITY SCIENCE SCOPE AND SEQUENCE FOR GRADE 8**

TITLE	AUTHOR	STANDARD
UNIT 1 REPRODUCTION, HEREDITY, AND EVOLUTION		
Animal World (Usborne)	Henderson	LE 4.3a,c,d,f Patterns of development in animals
Bluish	Hamilton	LE 4.4d Cancer is the result of abnormal cell division
Breast Cancer	Smith	LE 4.4d Cancer is the result of abnormal cell division
Guilty by a Hair! (24/7)	Prokos	LE 2.1a-e Genes and DNA
The DNA Gave It Away! (Shockwave)	Morrison	LE 2.1a-e Genes and DNA
Solving Crimes with Trace Evidence	Jeffrey	LE 2.1a-e Genes and DNA
The Human Genome Project	Toriello	LE 2.1a-e Genes and DNA
Medical Breakthroughs	Jeffrey	LE 2.1a-e Genes and DNA
The Usborne Book of Scientists from Archimedes to Einstein	Reid	LE 2.2a-c Mendelian genetics
How the Wolf Became the Dog	Zeaman	LE 3.1a Mutations
How to Clone a Sheep	Richardson	LE 3.1c Genetic engineering, esp. cloning
Under Cover of Darkness	Graham	LE 3.1a Sources of variation in organisms
Animal Dazzlers	Collard	LE 3.1a-c Adaptations
When Fish Got Feet, Sharks Got Teeth, and Bugs Began to Swarm	Bonner	LE 3.2c,d Evidence for evolution
How To Live Forever	Arnold	LE 3.2c,d Evidence for evolution
UNIT 2 FORCES AND MOTION ON EARTH		
Sports Science Projects	Goodstein	PS 5.1a,b Patterns of motion, frame of reference and position, direction, and speed.
Energy, Forces & Motion (Usborne Internet-Linked)	Smith	PS 5.1a,b-e Patterns of motion, frame of reference and position, direction, and speed, and Newton's First, Second, and Third Laws
Forces in Nature	Sonneborn	PS 5.1a,b Patterns of motion, frame of reference and position, direction, and speed.
An Invisible Force	Phelan	PS 5.1a,b Patterns of motion, frame of reference and position, direction, and speed.
Exploring Forces and Motion	Solway	PS 5.1d Newton's Second Law: $F = ma$ (conceptual understanding as opposed to teaching the formula)
Genius or Madman: Sir Isaac Newton (Shockwave)	Atkinson	PS 5.1e Newton's Third Law: For every reaction there is an equal and opposite reaction; Force as an interaction
Sir Isaac Newton: Using the Laws of Motion to Solve Problems	O'Donnell	PS 5.1e Newton's Third Law: For every reaction there is an equal and opposite reaction; Force as an interaction
UNIT 3 EARTH, SUN, MOON, SYSTEM		
Planet Earth (Fast Forward)	Senior	PS 1.1e-h Day: rotation, Year: revolution, Seasons: tilt of the Earth's axis of rotation, phases of the moon, eclipses, and tides
Beyond the Solar System: From Red Giants to Black Holes	Parker	PS 1.1a-c,j Classification of celestial objects: stars including the sun; planets; comets; moons; and asteroids.
Space Rocks (Women's Adventures in Science)	Hopping	PS 1.1a-c,j Classification of celestial objects: stars including the sun; planets; comets; moons; and asteroids

1000 Facts about Space	Beasant	PS 1.1c-l, PS 5.1a-c Patterns of motion, frame of reference and position, direction, and speed.
Learning About the Movement of the Sun and Other Stars with Graphic Organizers	Nadeau	PS 1.1c-l, PS 5.1a-c Patterns of motion, frame of reference and position, direction, and speed.
Earth and Space (Usborne)	Rogers	PS 1.1c,e,g,h Observe, describe, and compare the effects of balanced and unbalanced forces on the motion of objects. PS 5.1c Newton's First Law of Motion: Inertia
Astronomy (Usborne Internet-Linked)	Firth	PS 1.1c,e,g,h Observe, describe, and compare the effects of balanced and unbalanced forces on the motion of objects. PS 1.1d, PS 5.2a Gravity
UNIT 4 HUMANS IN THEIR ENVIRONMENT: NEEDS AND TRADEOFFS (EXIT PROJECTS)		
Wicked and Wonderful Water (Shockwave)	Schmauss	LE 3.2a, PS 4.1a-d, PS 4.4d,e, ICT 1.1-1.4, 2.1-2.3, 4.1, 4.2, 5.1, 5.2, 6.1, 6.2, IPS 1.1-1.4, IPS 2.1 Energy needs
Solar Energy	Mahaney	LE 3.2a, PS 4.1a-d, PS 4.4d,e, ICT 1.1-1.4, 2.1-2.3, 4.1, 4.2, 5.1, 5.2, 6.1, 6.2, IPS 1.1-1.4, IPS 2.1 Energy needs
Water Power	Mahaney	LE 3.2a, PS 4.1a-d, PS 4.4d,e, ICT 1.1-1.4, 2.1-2.3, 4.1, 4.2, 5.1, 5.2, 6.1, 6.2, IPS 1.1-1.4, IPS 2.1 Energy needs
Looking Ahead: Energy and the Environment	Barrett-Brown	PS 4.1a,b, ICT 5.1, 5.2 Renewable and nonrenewable sources of energy
The Uncanny Can (Shockwave)	Mecozzi	LE 6.1c, ICT 5.1, 5.2 Renewable and nonrenewable sources of materials
The Down-to-Earth Guide to Global Warming	David	LE 3.2b, LE 7.2c,d, ICT 1.2, 1.4, 2.1-2.3, 4.1, 4.2, 5.1, 5.2, 6.1, 6.2, IPS 1.1-1.4, IPS 2.1 Environmental Concerns: Acquisition and depletion of resources; Waste disposal; Land use and urban growth; Overpopulation; Global Warming; Ozone depletion; Acid rain; Air pollution; Water pollution; Impact on other organisms
Earth Partners (Shockwave)	Morrison	LE 3.2b, LE 7.2c,d, ICT 1.2, 1.4, 2.1-2.3, 4.1, 4.2, 5.1, 5.2, 6.1, 6.2, IPS 1.1-1.4, IPS 2.1 Environmental Concerns: Acquisition and depletion of resources; Waste disposal; Land use and urban growth; Overpopulation; Global Warming; Ozone depletion; Acid rain; Air pollution; Water pollution; Impact on other organisms
Air Pollution (True Book)	Donald	LE 3.2b, LE 7.2c,d, ICT 1.2, 1.4, 2.1-2.3, 4.1, 4.2, 5.1, 5.2, 6.1, 6.2, IPS 1.1-1.4, IPS 2.1 Environmental Concerns: Acquisition and depletion of resources; Waste disposal; Land use and urban growth; Overpopulation; Global Warming; Ozone depletion; Acid rain; Air pollution; Water pollution; Impact on other organisms
Looking at the Human Impact on the Environment	Porterfield	LE 3.2b, LE 7.2c,d, ICT 1.2, 1.4, 2.1-2.3, 4.1, 4.2, 5.1, 5.2, 6.1, 6.2, IPS 1.1-1.4, IPS 2.1 Environmental Concerns: Acquisition and depletion of resources; Waste disposal; Land use and urban growth; Overpopulation; Global Warming; Ozone depletion; Acid rain; Air pollution; Water pollution; Impact on other organisms
Poisoned Planet	Greeley	LE 3.2b, LE 7.2c,d, ICT 1.2, 1.4, 2.1-2.3, 4.1, 4.2, 5.1, 5.2, 6.1, 6.2, IPS 1.1-1.4, IPS 2.1 Environmental Concerns: Acquisition and depletion of resources; Waste disposal; Land use and urban growth; Overpopulation; Global Warming; Ozone depletion; Acid rain; Air pollution; Water pollution; Impact on other organisms
The Water Planet (Shockwave)	Schmauss	PS 4.5a,b, ICT 1.1-1.4, 2.1-2.3, 4.1, 5.1, 5.2, 6.1, 6.2, IPS 1.1-1.4, 2.1 Energy Conservation
The Wind at Work (Shockwave)	Iwinski	PS 4.5a,b, ICT 1.1-1.4, 2.1-2.3, 4.1, 5.1, 5.2, 6.1, 6.2, IPS 1.1-1.4, 2.1 Energy Conservation
No Animals, No Plants (Shockwave)	Irvine	LE 7.2c,d, ICT 5.2, IPS 1.1-1.4, IPS 2.1 Endangered species: Habitat destruction, over fishing
Belly-busting Worm Invasions! (24/7)	Tilden	LE 1.2j, LE 5.2f, IPS 1.1-1.4, IPS 2.1 Food-borne illness: Infectious disease and the immune system (bacteria, parasites)
Diabetes	Levin	LE 1.2j, LE 4.4d, LE 5.2f, IPS 1.1-1.4, IPS 2.1 System failures: heart disease; high blood pressure; colon cancer; epidemics of childhood obesity and diabetes; osteoporosis