

Elementary Curriculum Framework (P–6)

Each module contains materials for 30 students to complete a 12-week unit.

Grade	Life Science	Earth Science	Physical Science
P (BBS)	<ul style="list-style-type: none"> • Discovering Plants • My Senses 		<ul style="list-style-type: none"> • Push, Pull, Go
P (FOSS)			<ul style="list-style-type: none"> • Fabric • Wood & Paper
K (FOSS)	<ul style="list-style-type: none"> • Animals Two by Two+ • Trees 		<ul style="list-style-type: none"> • Fabric • Wood & Paper
K (BBS)	<ul style="list-style-type: none"> • Discovering Animals+ • Discovering Plants+ • My Senses 	<ul style="list-style-type: none"> • Digging Earth Materials 	<ul style="list-style-type: none"> • Patterns All Around • Push, Pull, Go
1 (FOSS)	<ul style="list-style-type: none"> • Insects+ 	<ul style="list-style-type: none"> • Air & Weather 	<ul style="list-style-type: none"> • Balance & Motion • Sound & Light (NGSS)
1 (STC)	<ul style="list-style-type: none"> • Organisms+ 	<ul style="list-style-type: none"> • Weather 	<ul style="list-style-type: none"> • Solids & Liquids
2 (FOSS)	<ul style="list-style-type: none"> • New Plants 	<ul style="list-style-type: none"> • Pebbles, Sand, & Silt 	<ul style="list-style-type: none"> • Solids & Liquids • Solids & Liquids (NGSS)
2 (STC)	<ul style="list-style-type: none"> • The Lifecycle of Butterflies+ 	<ul style="list-style-type: none"> • Soils+ 	<ul style="list-style-type: none"> • Changes
3 (FOSS)	<ul style="list-style-type: none"> • Structures of Life+ • Structures of Life+(NGSS) 	<ul style="list-style-type: none"> • Water & Climate (NGSS) 	<ul style="list-style-type: none"> • Magnetism & Electricity • Motion & Matter (NGSS) • Ideas & Inventions
3 (STC)	<ul style="list-style-type: none"> • Plant Growth & Development 	<ul style="list-style-type: none"> • Rocks & Minerals 	<ul style="list-style-type: none"> • Chemical Tests • Sound
4 (FOSS)	<ul style="list-style-type: none"> • Human Body 	<ul style="list-style-type: none"> • Water • Soils, Rocks, and Landforms (NGSS) • Environments+(NGSS) 	<ul style="list-style-type: none"> • Energy (NGSS) • Measurement • Physics of Sound
4 (STC)	<ul style="list-style-type: none"> • Animal Studies+ 	<ul style="list-style-type: none"> • Land & Water 	<ul style="list-style-type: none"> • Electric Circuits
5 (FOSS)	<ul style="list-style-type: none"> • Environments+ • Living Systems+ (NGSS) 	<ul style="list-style-type: none"> • Earth & Sun (NGSS) • Landforms 	<ul style="list-style-type: none"> • Levers & Pulleys • Models & Design
5 (STC)	<ul style="list-style-type: none"> • Microworlds+ 	<ul style="list-style-type: none"> • Ecosystems+ 	<ul style="list-style-type: none"> • Floating & Sinking • Motion & Design
6 (FOSS)			<ul style="list-style-type: none"> • Mixtures & Solutions (NGSS) • Variables
6 (STC)	<ul style="list-style-type: none"> • Experiments with Plants 		<ul style="list-style-type: none"> • Magnets & Motors

+ Modules/toolboxes require living materials. Living materials are not provided by ASSET and must be ordered separately.

Robotics/Technology

Grades	Title
K–1	Children’s Innovation Project™
K–12	GigaPan Basics
3–8	Arts & Bots
3–8	Hummingbird™ Basics

Engineering Adventures (OST)

Grades	Title
3–5	Bubble Bonanza: Engineering Bubble Wands
3–5	Go Green: Engineering Recycled Racers
3–5	Lift Off: Engineering Rockets and Rovers
3–5	Shake Things Up: Engineering Earthquake-Resistant Buildings
3–5	Sky’s the Limit: Engineering Flying Technologies

Minimum participant requirement for PD applies.

Please note: ASSET continuously provides new materials and updated module editions.

Middle School Curriculum Framework (Grades 6–8)

Modules/Toolboxes marked with a plus sign (+) require living materials. Living materials are not provided by ASSET and must be ordered separately.

FOSS Modules

FOSS units are leased for 18 weeks.

Life Science	Earth Science	Physical Science
<ul style="list-style-type: none"> • Diversity of Life+ • Populations & Ecosystems+ 	<ul style="list-style-type: none"> • Earth History • Weather & Water 	<ul style="list-style-type: none"> • Chemical Interactions • Force & Motion

STC Modules

STC units are leased individually for 9 weeks.

Life Science	Earth Science	Physical Science	
<ul style="list-style-type: none"> • Investigating Digestion and Motion • Exploring Respiration and Circulation 	<ul style="list-style-type: none"> • Understanding Weather and Climate • Exploring Plate Tectonics 	<ul style="list-style-type: none"> • Exploring the Properties of Matter • Experimenting with Mixtures, Compounds and Elements 	<ul style="list-style-type: none"> • Investigating Circuit Design • Discovering Electrical Systems
<ul style="list-style-type: none"> • Investigating Biodiversity and Interdependence+ • Studying the Development and Reproduction of Organisms+ 	<ul style="list-style-type: none"> • Exploring Planetary Systems • Researching the Sun-Earth-Moon System 	<ul style="list-style-type: none"> • Experimenting with Forces and Motion • Working with Motors and Simple Machines 	<ul style="list-style-type: none"> • Exploring the Nature of Light • Researching Optical Systems

Engineering Everywhere (OST)

Grades	Title
6–8	Don't Runoff: Engineering Urban Landscapes
6–8	Food For Thought: Engineering Ice Cream
6–8	Here Comes the Sun: Engineering Insulated Homes
6–8	Put A Lid On It: Engineering Safety Helmets

Robotics/Technology

Grades	Title
K–12	GigaPan Basics
3–8	Arts & Bots
3–8	Hummingbird™ Basics

A World in Motion

Grades	Title
6–8	Glider Challenge

Please note: ASSET continuously provides new materials and updated module editions.

STEM HANDS-ON MATERIALS

Engineering is Elementary® Units Approximately 6-8 Instructional Hours

Grade	EiE Unit*	Science Module Connection	Science Topic	Engineering Field	Storybook/ Setting
Basic 1–2**	Catching the Wind: Designing Windmills	<ul style="list-style-type: none"> • Air & Weather (FOSS) • Weather (STC) 	Wind & Weather	Mechanical	Denmark
	The Best of Bugs: Designing Hand Pollinators	<ul style="list-style-type: none"> • Insects (FOSS) • New Plants (FOSS) • Structures of Life (FOSS) • The Life Cycle of Butterflies (STC) • Organisms (STC) • Plant Growth & Development (STC) 	Insects & Plants	Agricultural	Dominican Republic
	A Sticky Situation: Designing Walls	<ul style="list-style-type: none"> • Pebbles, Sand & Silt (FOSS) • Soils (STC) • Rocks & Minerals (STC) 	Earth Materials	Materials	China
	Thinking Inside the Box: Designing Plant Packages	<ul style="list-style-type: none"> • New Plants (FOSS) • Structures of Life (FOSS) • Plant Growth & Development (STC) • Experiments with Plants (STC) 	Plants	Package	Jordan
	To Get to the Other Side: Designing Bridges	<ul style="list-style-type: none"> • Balance & Motion (FOSS) • Balancing & Weighing (STC) 	Balance & Forces	Civil	United States (Texas)
	A Work in Process: Improving a Play Dough Process	<ul style="list-style-type: none"> • Solids & Liquids (FOSS) • Solids & Liquids (STC) 	Solids & Liquids	Chemical	Canada
Advanced 3–5**	Marvelous Machines: Making Work Easier	<ul style="list-style-type: none"> • Levers & Pulleys (FOSS) 	Simple Machines	Industrial	United States (Boston, MA)
	Water, Water Everywhere: Designing Water Filters	<ul style="list-style-type: none"> • Water (FOSS) • Land & Water (STC) 	Water & the Water Cycle	Environmental	India
	The Attraction is Obvious: Designing MagLev Systems	<ul style="list-style-type: none"> • Magnetism & Electricity (FOSS) • Magnets & Motors (STC) 	Magnetism	Transportation	Japan
	An Alarming Idea: Designing Alarm Circuits	<ul style="list-style-type: none"> • Magnetism & Electricity (FOSS) • Electric Circuits (STC) • Magnets & Motors (STC) 	Electricity	Electrical	Australia
	Taking the Plunge: Designing Submersibles	<ul style="list-style-type: none"> • Water (FOSS) • Floating & Sinking (STC) 	Floating & Sinking	Ocean	Greece
	A Slick Solution: Cleaning an Oil Spill	<ul style="list-style-type: none"> • Environments (FOSS) • Ecosystems (STC) 	Ecosystems	Environmental	United States (Pacific Northwest)
	Just Passing Through: Designing Model Membranes	<ul style="list-style-type: none"> • Environments (FOSS) • Animal Studies (STC) 	Organisms & Basic Needs	Bioengineering	El Salvador
	Solid as a Rock: Replicating an Artifact	<ul style="list-style-type: none"> • Earth Materials (FOSS) • Rocks & Minerals (STC) 	Rocks & Minerals	Materials	Russia
	No Bones About It: Designing Knee Braces	<ul style="list-style-type: none"> • Human Body (FOSS) 	Human Body	Biomedical	Germany
	Sounds Like Fun! Seeing Animal Sounds	<ul style="list-style-type: none"> • Physics of Sound (FOSS) • Sound (STC) 	Sound	Acoustical	Ghana
	A Stick in the Mud: Evaluating a Landscape	<ul style="list-style-type: none"> • Landforms (FOSS) • Land & Water (STC) 	Landforms	Geotechnical	Nepal
	A Long Way Down: Designing Parachutes		Astronomy	Aerospace	Brazil
	Lighten Up: Designing Lighting Systems		Light	Optical	Egypt
Now You're Cooking: Designing Solar Ovens		Energy	Green Engineering	Botswana	

* EiE units are NOT an independent curriculum. Each unit is designed to be taught in conjunction with or after the completion of a science topic/module.

** All EiE units include teacher tips, handouts, etc. for both Basic and Advanced grade levels.