

Standards Alignment

YES units integrate with science ideas and standards. We carefully design engineering challenges so students develop and use science knowledge as they generate solutions.

By using scientific disciplinary ideas and crosscutting concepts as they engage in engineering and science practices students strengthen their understanding of and facility with **both** science and engineering.

We recommend that teachers choose units that connect with performance expectations that they address. YES units are designed to be implemented with science units focused on these topics.

Grade	Unit	Science Topic(s)	NGSS Performance Expectations	NGSS Crosscutting Concept(s)
YES Elementary				
K	<i>Engineering Sun Hats</i>	Sunlight and Shade	K-PS3-1 K-PS3-2 K-2-ETS1-1 K-2-ETS1-2 K-2-ETS1-3	Structure and Function
1-2	<i>Engineering Nightlights</i>	Light	1-PS4-2 1-PS4-3 1-PS4-4 K-2-ETS1-1 K-2-ETS1-2 K-2-ETS1-3	Cause and Effect
1-2	<i>Engineering Pumpkin Pollinators</i>	Pollination Life Cycles of Plants	2-PS1-2 2-LS2-2 K-2-ETS1-1 K-2-ETS1-2 K-2-ETS1-3	Structure and Function Cause and Effect
3-5	<i>Engineering Magnetic Dog Doors</i>	Magnetic Forces Balanced and Unbalanced Forces	3-PS2-1 3-PS2-3 3-PS2-4 3-5-ETS1-2	Systems and System Models

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3–5	<i>Engineering Safety Vests</i>	Circuits Information Transfer	4-PS3-4 4-PS4-3 3-5-ETS1-1 3-5-ETS1-2	Patterns Energy and Matter
3–5	<i>Engineering Plastic Filters</i>	Ecosystems Pollution	5-LS2-1 5-ESS1-1 5-ESS3-1 3-5-ETS1-1 3-5-ETS1-2 3-5-ETS1-3	Stability and Change
YES Enrichment				
K–2	<i>Engineering Bandages</i>	Materials Properties	2-PS1-2 K-2-ETS1-1 K-2-ETS1-2 K-2-ETS1-3	Structure and Function
K–2	<i>Engineering Sails</i>	Wind Energy	K-PS2-2 2-PS1-2 K-2-ETS1-1 K-2-ETS1-2 K-2-ETS1-3	Cause and Effect
K–2	<i>Engineering Bubble Wands</i>	Materials Properties	2-PS1-2 K-2-ETS1-1 K-2-ETS1-2 K-2-ETS1-3	Structure and Function
3–5	<i>Engineering Rescue Shuttles</i>	Extreme Weather	3-PS2-2 3-5-ETS1-1 3-5-ETS1-2 3-5-ETS1-3	Cause and Effect
3–5	<i>Engineering Sock Assistive Devices</i>	Human Body	3-5-ETS1-1 3-5-ETS1-2 3-5-ETS1-3	Systems and System Models

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3–5	<i>Engineering Upcycled Toy Vehicles</i>	Wheels and Axles	3-PS2-2 5-ESS3-1 3-5-ETS1-1 3-5-ETS1-2 3-5-ETS1-3	Systems and System Models
YES Middle School				
6–8	<i>Engineering Medicine Coolers</i>	Thermal Energy Transfer	MS-PS1-6 MS-PS3-3 MS-ETS1-1 MS-ETS1-2	Energy and Matter
6–8	<i>Engineering Eco-friendly Slippers</i>	Force and Motion Friction Balanced and Unbalanced Forces	MS-PS3-1 MS-PS2-2 MS-ETS1-1 MS-ETS1-2	Stability and Change
6–8	<i>Engineering Landing Pads</i>	Kinetic Energy Transfer Collisions	MS-PS2-1 MS-PS3-2 MS-PS3-5 MS-ETS1-1 MS-ETS1-2 MS-ETS1-3 MS-ETS1-4	Energy and Matter Structure and Function
6–8	<i>Engineering Vision Extenders</i>	Reflection of Light	MS-PS4-2 MS-ETS1-1 MS-ETS1-2 MS-ETS1-3 MS-ETS1-4	Structure and Function

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6–8	<i>Engineering Wearable Alert Systems</i>	Electrical and Mechanical Systems	MS-ETS1-1 MS-ETS1-2 MS-ETS1-3 MS-ETS1-4	Systems and System Models
6–8	<i>Engineering Earthquake-Resistant Buildings</i>	Natural Hazards	MS-ESS3-2 MS-ETS1-1 MS-ETS1-2 MS-ETS1-3 MS-ETS1-4	Stability and Change