



CreositySpace

Connecting Kids to STEM Through Entrepreneurship

Connecting Kids to STEM

through entrepreneurship and storytelling



Retail Catalog 2023

Table of Contents

1. Science and Engineering Units.....5
2. Innovation and Entrepreneurship Packs.....22
3. Science and Engineering Kits.....25

All CreositySpace products come with a complimentary 30-minute introductory session.

Please contact us directly to schedule longer professional development workshops or to establish an ongoing *CreositySpace Collaborative Cohort* for your educational team.



Any curriculum can create lesson plans to teach science.
CreositySpace curriculum has the power to change
how students see themselves using science.

Seeing Science as Part of Their Present and Their Future

Students learn better when what they are learning is put into a context that is relevant to them. This could be through the latest technology, career exploration, and even the real-world challenges facing their communities. With a focus on student-led, inquiry-based discovery, each unit is built around the stories and innovations of real-life STEM entrepreneurs from different backgrounds. **These stories help students connect what they are learning to THEIR lived experiences and THEIR possibilities for the future.**

Supporting a Positive Message—Science is for Everyone

The first message most students hear about science is "It's hard," or "You need to be an A-student in science to work in STEM." Additionally, elementary science often focuses on learning facts and developing skills, with little emphasis on providing relevant context and connections to the real world. That's not how science, or STEM, is done in the real-world. Discoveries and developments need the benefit of different perspectives, and technology companies hire both science-inclined as well as science-curious employees. **Young students need to learn that science is for everyone—CreositySpace can help.**

The Time is Now—Before Students Self-Select Out

Elementary school is a time when a huge part of student's identity is formed. Students are deciding who they are, and, unfortunately, who they aren't. Our strong cross-curricular connections, and emphasis on collaboration and discussion, create a place for students from all backgrounds and interests to explore and connect to science in a personal way that makes it current, real and relevant at this critical time.

CreositySpace helps teachers and administrators make meaningful change* in their students' self-confidence and career aspirations around science. Let us do the same for you.

*Student survey data collected by CreositySpace shows show a **3x** increase in student confidence with STEM concepts after using CreositySpace, and a **2x** increase in girls' interest in a STEM career after using CreositySpace

At A Glance

Science and Engineering Units



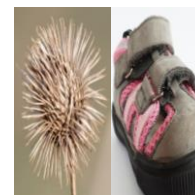
Draft Dodgers
(K)



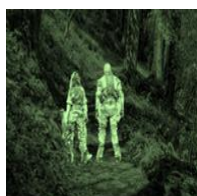
Soil Savers
(K-5)



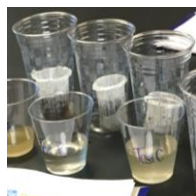
Inventor Inklings
(1)



Copy Catters
(1-3)



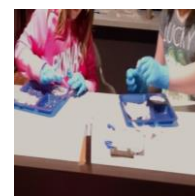
Virtual Tracers
(1-3)



Water Watchers
(1-5)



Green Architects
(2-5)



Polymer Prodigies
(2-5)



Mushroom Maestros
(2-5)



Contagion Crushers
(3-5)



Spine Fixers
(3-5)



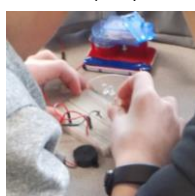
Community Designers
(3-5)



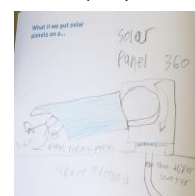
Wind Harnessers
(4-5)



Battery Builders
(3-5)



Circuit Creators
(4-5)



Sun Catchers
(4-5)

Innovation and Entrepreneurship Units



Book of Ideas Class Pack (K-8)



Makerspace Launch Pack (1-5)



Makerspace Challenge Pack (3-8)

Individual Science and Engineering Kits



My STEM Explorer Kit (1-5)



My STEM Designer Kit (3-5)



My Creo-Space Family Engagement Program (1-5)

1. Science and Engineering Units

All CreositySpace science and engineering units were designed according to the national science framework. Units can be used as supplemental science and/or engineering curriculum and instructional materials.

If you would like to use **CreositySpace as your primary elementary science curriculum**, the following sequencing/grade-level alignment is suggested. If you are interested in the specific standards mapping for your district, please contact your regional CreositySpace sales representative or reach out to us at sales@creosityspace.com.

Grade	Unit		
Kindergarten	<i>Draft Dodgers</i>	<i>Soil Savers</i>	
	(Force, Motion, and Aerodynamics)	(Soil—It's More Than Just Dirt)	
Grade 1	<i>Inventor Inklings</i>	<i>Copy Catters</i>	<i>Virtual Tracers</i>
	(Introduction to Invention)	(Biomimicry)	(Virtual Reality)
Grade 2	<i>Green Architects</i>	<i>Polymer Prodigies</i>	
	(Sustainability and Natural Resources)	(Polymers and Materials)	
Grade 3	<i>Mushroom Maestros</i>	<i>Contagion Crushers</i>	<i>Water Watchers</i>
	(Natural Materials)	(Microbiology)	(Water and the Community)
Grade 4	<i>Circuit Creators</i>	<i>Spine Fixers</i>	<i>Wind Harnessers</i>
	(Communication and Electrical Circuits)	(Prosthetics)	(Wind Energy)
Grade 5	<i>Sun Catchers</i>	<i>Battery Builders</i>	<i>Community Designers</i>
	(Solar Energy)	(Batteries and Energy Storage)	(Sustainable Design)

Draft Dodgers

Primary Curriculum	Kindergarten
Supplemental Curriculum	Grades K–2
Notes	Standard unit/refill kit comes with enough materials for 30 students. Full kit contents can be found online at www.creosityspace.com/draft-dodgers.html .
Full Unit (PDDK02).....\$725	
Supplemental Unit (Kindergarten-PDD00K, Grade 1-PDD001, Grade 2-PDD002).....\$500	
Book of Ideas Class Pack (Kindergarten-BUS0K3, Grade 1-BUS013, Grade 2-BUS023).....\$325	

Description

Why is it harder to walk on a windy day?

Fast cars, demolition derbies, and the power of the wind are the tools used to introduce your classroom of budding innovators to force, motion, and aerodynamics. Join Daniele as he talks about how his love for fast cars brought him to the United States from Torino, Italy, to study aerodynamics and rocket ships.

Using the overarching question of why it can be hard to walk on a windy day, students explore force, motion, and engineering as they ask themselves: “How does the air and wind affect the way we move?”

Main Investigations

Knock It Down! & Demolition Derby – Exploring Forces



Windy Walk in the Park



Number of Lessons*

Full unit – 17–20 lessons

Supplemental program – minimum 8–10 lessons

**Lesson = 30–40 min. block, 50% of full unit lessons can be delivered in non-science classes*

Best Suited For

- Classroom science instruction (Kindergarten)
- Summer camps (1 week) (Grades K–2)
- Afterschool programs (Grades K–2)

Soil Savers

Primary Curriculum	Kindergarten
Supplemental Curriculum	Grades K–5
Notes	Plant growth investigation requires 3 – 4 weeks to complete and is best done with outdoor soil/dirt. Standard unit/refill kit comes with enough materials for 30 students. Full kit contents can be found online at https://www.creosityspace.com/soil-savers.html .
Full Unit (ESSK02).....\$725	
Supplemental Unit (Kindergarten-ESS00K, Grade 1-ESS001, Grade 2-ESS002).....\$500	
Supplemental Unit (Grade 3-ESS003, Grade 4-ESS004, Grade 5-ESS005).....\$650	
Book of Ideas Class Pack (Kindergarten-BUS0K3, Grade 1-BUS013, Grade 2-BUS023, Grade 3-BUS033, Grade 4-BUS043, Grade 5-BUS053).....\$325	

Description

What makes soil so special?

Have you ever stopped to think about the ground beneath your feet? It's true, the ground provides us with a place to build our homes and businesses, but it is so much more than that. The soil provides food and shelter for so many members of our ecosystem—where would we be without it? Join Chad and Virginia as they talk about the different ways their businesses are working to improve our soil and all that it produces.

Using the overarching question of what makes soil so special, students explore the interactions between plants, animals, and the environment as they ask themselves: *"How does the soil support the plants and animals in our community?"*

Main Investigations

What Do Plants Need To Survive?



Weather Watchers – Class Research Project



Number of Lessons*

Full unit – 25 lessons

Supplemental program – minimum 7 lessons
(requires 3–4 weeks to complete plant growth)

Best Suited For

- Classroom science instruction (Kindergarten)
- Afterschool programs (Grades K-2)

**Lesson = 30–40 min. block, 50% of full unit lessons can be delivered in non-science classes*

Inventor Inklings

Primary Curriculum	Grade 1
Supplemental Curriculum	Grades 1–2
Notes	Standard unit comes with enough materials for 30 students. There is no refill kit as all components are consumable. Full kit contents can be found online at https://www.creosityspace.com/inventor-inklings.html .
Full Unit (MII101).....\$400	

Description

What do you do with an idea?

Kids are natural inventors and problem solvers. As they enter elementary school, nearly every thing they see presents a new challenge and opportunity for creative thinking. *Inventor Inklings* starts them on this journey by coupling this inquisitive tendency with lessons in communication, collaboration, organization, and the engineering design process.

Using the overarching question of “What to do with an idea?” students begin to explore biomimicry, communication, and the engineering design process as they ask themselves: *“How can we use science and engineering to help our community?”*

Example Inventions



Number of Lessons*

Full unit – 22 lessons

Supplemental program – minimum 10 lessons

**Lesson = 30–40-min. block, 50% of full unit lessons can be delivered in non-science classes*

Best Suited For

- Classroom science instruction (Grade 1)
- For afterschool programs and/or camps we suggest the similar Makerspace Launch product (MSP011, \$350)

Copy Catters

Primary Curriculum	Grade 1
Supplemental Curriculum	Grades 1–2
Notes	Standard unit/refill kit comes with enough materials for 30 students. Full kit contents can be found online at https://www.creosityspace.com/copy-catters.html .
Full Unit (LCC102).....\$725	
Supplemental Unit (Grade 1-LCC001, Grade 2-LCC002).....\$650	
Book of Ideas Class Pack (Grade 1-BUS013, Grade 2-BUS023).....\$325	

Description

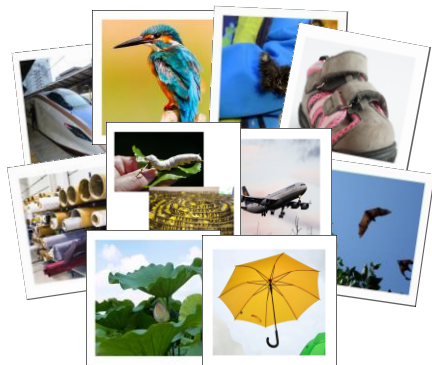
From Velcro to high-speed trains, nature provides the spark for innovation.

Work smarter not harder— isn't that what they say? So why not turn to nature first when looking to solve a human problem or challenge? Join entrepreneurs from all over the world as they talk about their bio-inspired innovations.

Using the overarching phenomenon of bio-inspired innovation, students will continue their exploration into biomimicry and plant and animal traits and behaviors as they ask themselves: *"How can we look to nature for inspiration to find solutions to human problems and challenges?"*

Main Investigations

Inspired by Nature Mix and Match game



Sounds of Nature



Design Your Own Superhero



Number of Lessons*

Full unit – 25 lessons

Supplemental program – minimum 8–10 lessons

Best Suited For

- Classroom science instruction

**Lesson = 30–40 min. block, 50% of full unit lessons can be delivered in non-science classes*

Virtual Tracers

Primary Curriculum	Grade 1
Supplemental Curriculum	Grades 1–3
Notes	Standard unit/refill kit comes with enough materials for 30 students. Full kit contents can be found online at www.creosityspace.com/virtual-tracers.html .
Full Unit (PVT102).....\$725	
Supplemental Unit (Grade 1-PVT001, Grade 2-PVT002).....\$650	
Book of Ideas Class Pack (Grade 1-BUS013, Grade 2-BUS023, Grade 3-BUS033).....\$325	

Description

What does it take to see in the dark?

Humans need light to see what is around them. Sometimes it is easy to identify the source of that light—the sun, the moon, an overhead light bulb—while other times it can be a bit confusing. How can we see a glow-in-the-dark picture? How do night vision goggles work? And how do augmented and virtual reality technology use light to have us see things that aren't even there?

Using the overarching phenomenon of night vision and the theme of secret missions, students will explore different sources of light and illumination as they ask themselves: *“What would I do to be seen and what would I do to stay hidden?”*

Main Investigations

Direction of Light



Do You See What I See?



Planning Your Secret Mission

When Should You Travel?					
Date	Sun Rise	Sun Set	Hours of Light	Day Sky	Night Sky
January 7, 2019	7:56 AM	4:34 PM	8:38	Sun Clouds	no moon, stars
January 21, 2019	7:48 AM	4:53 PM	9:05	Sun Clouds	full moon
February 7, 2019	7:27 AM	5:19 PM	9:52	Sun	no moon, stars
February 21, 2019	7:04 AM	5:41 PM	10:37	Sun	Almost full moon, stars
March 7, 2019	6:38 AM	6:03 PM	11:24	Fog, clouds	no moon no stars

Number of Lessons*

Full unit – 25 lessons

Supplemental program – minimum 8–10 lessons

Best Suited For

- Classroom science instruction

**Lesson = 30–40 min. block, 50% of full unit lessons can be delivered in non-science classes*

Green Architects

Primary Curriculum	Grade 2
Supplemental Curriculum	Grades 2–5
Notes	Living Wall investigation requires 2 – 3 weeks to complete. Standard unit/refill kit comes with enough materials for 30 students. Full kit contents can be found online at www.creosityspace.com/green-architects.html .
Full Unit (EGA202).....\$725	
Supplemental Unit (Grade 2-EGA002, Grade 3-EGA003, Grade 4-ESS004, Grade 5-ESS005).....\$650	
Book of Ideas Class Pack (Grade 2-BUS023, Grade 3-BUS033, Grade 4-BUS043, Grade 5-BUS053).....\$325	

Description

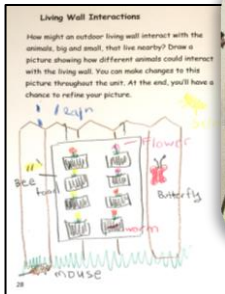
How can you design a building that uses less energy?

Most people think of buildings as just a collection of cement and steel, pipes and wires. In *Green Architects*, Callie tells us her story and helps us explore the ways buildings can be seen as dynamic participants in the community. Buildings can determine our energy usage and environmental impact while also contributing to our day-to-day well-being.

Using the overarching question of how to design a building or home that uses less energy, students explore properties of Earth, ecosystems, and engineering as they ask themselves: “How can we develop buildings and communities that work with and preserve the environment?”

Main Investigations

Living Wall Investigation and Model



Building a Green Home



Number of Lessons*

Full unit – 28 lessons

Supplemental program – minimum 5 lessons
(requires 2–3 weeks for living walls to grow)

**Lesson = 30–40 min. block, 50% of full unit lessons can be delivered in non-science classes*

Best Suited For

- Classroom science instruction (Grade 2)
- Summer camps (Grades 2–5+, minimum 2 weeks)
- Afterschool programs that have regular attendance (Grades 2–5)

Polymer Prodigies

Primary Curriculum	Grade 2
Supplemental Curriculum	Grades 2–5
Notes	Milk polymer composite requires 1 week to dry. Standard unit/refill kit comes with enough materials for 30 students. Full kit contents can be found online at www.creosityspace.com/polymer-prodigies.html .
Full Unit (PPP202).....\$725	
Supplemental Unit (Grade 2-PPP002, Grade 3-PPP003, Grade 4-PPP004, Grade 5-PPP005).....\$650	
Book of Ideas Class Pack (Grade 2-BUS023, Grade 3-BUS033, Grade 4-BUS043, Grade 5-BUS053).....\$325	

Description

How can you change the properties of materials?

Metals are conductors and plastics are insulators, right? End of story.

Or is it?

We know plastics are currently on everyone's naughty list, but the ability to control their chemistry enables us to do amazing things. Join Volha, Jason, Anne, and others as they talk about all the cool ways they are controlling the properties of plastics and polymeric materials.

Using the overarching phenomenon of how something can be easy to break sometimes and harder to break at other times, students explore the properties of materials and how you can change them to solve challenges as they ask themselves: “What can I do with this material?”

Main Investigations

It's What's Inside That Counts – Slime Investigations



Polymer Composite Creations



Number of Lessons*

Full unit – 20 lessons

Supplemental program – minimum 5 lessons
(milk polymer composite requires 1 week to dry)

**Lesson = 30–40 min. block, 50% of full unit lessons can be delivered in non-science classes*

Best Suited For

- Classroom science instruction (Grade 2)
- Summer camps (Grades 2–5+, minimum 1 week)
- Afterschool programs that have regular attendance (Grades 2–5)

Mushroom Maestros

Primary Curriculum	Grade 3
Supplemental Curriculum	Grades 2–5+
Notes	Mushroom packaging kit has 3-month shelf life (can be shipped separately). Not for use by students/teachers with fungal allergies or severe hay fever/allergies. Standard unit/refill kit comes with enough materials for 30 students. Full kit contents can be found online at www.creosityspace.com/mushroom-maestros.html .
Full Unit (EMM302).....\$800	
Supplemental Unit (Grade 2-EMM002, Grade 3-EMM003, Grade 4-EMM004, Grade 5-EMM005).....\$700	
Book of Ideas Class Pack (Grade 2-BUS023, Grade 3-BUS033, Grade 4-BUS043, Grade 5-BUS053).....\$325	

Description

What can YOU make out of mushrooms?

Mention mushrooms, molds, slimes, or other fungi to kids and you're likely to get a bunch of scrunched noses and a chorus of "ewwws!" That all changes when Eben and Gavin start to explain how mushroom technology is changing the way we think about packaging, sculpture, and many other things.

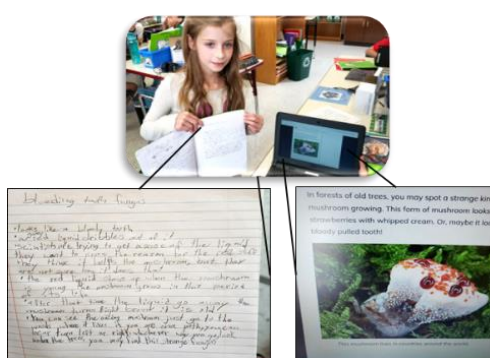
Using the game-changing mushroom-based technologies coming out of Ecovative's Mycelium Foundry as the overarching phenomenon, students explore traits, characteristics, and engineering as they ask themselves: "*How and why do traits develop and how can humans use them to solve problems and develop technology?*"

Main Investigations

Traits & Characteristics Sorting Cards



Mushroom Trait Research



Mushroom Packaging Design Project



Number of Lessons*

Full unit – 25 lessons

Supplemental program – minimum 7 lessons
(requires 2 weeks for mushroom packaging to grow)

**Lesson = 30–40 min. block, 50% of full unit lessons can be delivered in non-science classes*

Best Suited For

- Classroom science instruction (Grade 3)
- Summer camps (minimum 2 weeks)
(Grades 2–5+)
- Afterschool programs that have regular attendance or flexible programming
(Grades 2–5+)

Contagion Crushers

Primary Curriculum	Grade 3
Supplemental Curriculum	Grades 3–5
Notes	Microbe growing activity requires 1 week to complete. Petri dishes contain agar gel. Standard unit/refill kit comes with enough materials for 30 students. Full kit contents can be found online at www.creosityspace.com/contagion-crushers.html .
Full Unit (LCC302).....\$725	
Supplemental Unit (Grade 3-LCC003, Grade 4-LCC004, Grade 5-LCC005).....\$650	
Book of Ideas Class Pack (Grade 3-BUS033, Grade 4-BUS043, Grade 5-BUS053).....\$325	

Description

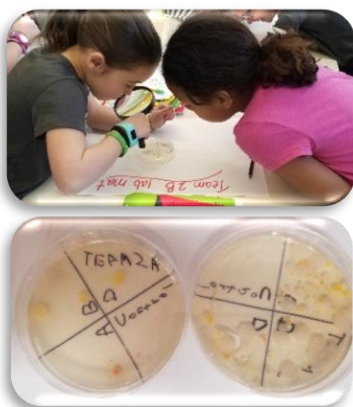
How can you kill germs with the flip of a switch?

Explore the world of light, bacteria, and business as Colleen Costello, co-founder and president of Vital Vio (recently renamed to Vyv), tells her story about designing an everyday light source that automatically cleans while in use.

Using Vyv's ellumi™ technology as the overarching phenomenon, students will explore bacteria, environmental influences, and life cycles as they ask themselves: *"How can understanding the way different organisms live help us to solve health-related problems?"*

Main Investigations

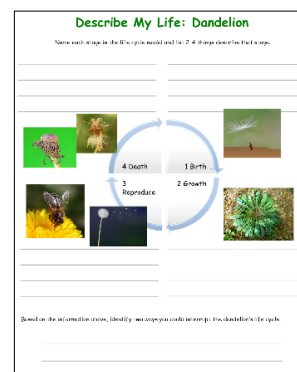
Bacteria Growing



Light Experiments



Life Cycle Investigations



Number of Lessons*

Full unit – 25 lessons

Supplemental program – minimum 5 lessons
(requires 1 week for microbes to grow)

**Lesson = 30–40 min. block, 50% of full unit lessons
can be delivered in non-science classes*

Best Suited For

- Classroom science instruction

Water Watchers

Primary Curriculum	Grade 3
Supplemental Curriculum	Grades 1–5
Notes	This single unit covers all the science content other companies typically split into two units. Standard unit/refill kit comes with enough materials for 30 students. Full kit contents can be found online at www.creosityspace.com/water-watchers.html .
Full Unit (EWW302).....\$725	
Supplemental Unit (Grade 3-EWW003, Grade 4-EWW004, Grade 5-EWW005).....\$650	
Book of Ideas Class Pack (Grade 1-BUS013, Grade 2-BUS023, Grade 3-BUS033, Grade 4-BUS043, Grade 5-BUS053).....\$325	

Description

How do we ensure everyone has the water they need?

Having access to clean drinking water is a basic need for every living creature, but for so many people knowing if they'll have clean drinking water each day is far from certain. That's where Huda and her team at PV Pure come in. Learn how they are working to make flexible small-scale water purification plants that can be used in rural and hard-to-reach communities around the world. These plants don't need a lot of infrastructure or expertise to run and have the potential to change millions of lives.

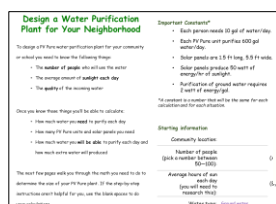
Using the question of "How do we ensure everyone has the water they need?" as the overarching phenomenon, students will explore the various aspects of purification, water availability, weather, and engineering as they ask themselves: "How can we provide safe water to rural and hard to reach communities?"

Main Investigations

Water Filtration Design Project

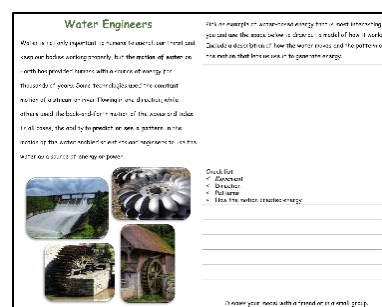


Sizing/Designing a Water Purification Plant



(Lego and other building eqpt. not included)

Water-based Energy Model



Number of Lessons*

Full unit – 25 lessons

Supplemental program – minimum 5 lessons

Best Suited For

- Classroom science instruction

*Lesson = 30–40 min. block, 50% of full unit lessons can be delivered in non-science classes

Circuit Creators

Primary Curriculum	Grade 4
Supplemental Curriculum	Grades 3–5+
Notes	Standard unit/refill kit comes with enough materials for 30 students. Full kit contents can be found online at www.creosityspace.com/circuit-creators.html .
Full Unit (PCC402).....\$800 Supplemental Unit (Grade 3-PCC003, Grade 4-PCC004, Grade 5-PCC005).....\$650 Book of Ideas Class Pack (Grade 3-BUS033, Grade 4-BUS043, Grade 5-BUS053).....\$325	

Description

How can you communicate during an emergency?

Communication and electricity are the lifeblood of technology as we know it. We've come a long way from smoke signals and from computers that take up an entire room! Join Jon as he connects these two concepts to the natural world with stories, songs, and demonstrations.

Using the overarching question of how to communicate during an emergency, students explore properties of communication, circuits, natural hazards, and engineering as they ask themselves: *"What would help my community stay connected during a time of need?"*

Main Investigations

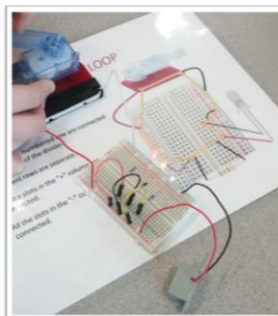
Code Breakers communication design challenge

Word	Light Pattern
milkshakes	⬆ ⬆
pizza	⬆ ⬆
burger	⬆ ⬆
Lunch	⬆ ⬆
pat	⬆ ⬆
went	⬆ ⬆
for	⬆ ⬆
you	⬆ ⬆
Do	⬆ ⬆
?	h-z-z-z
!	two buzzes

Code Cards:

Write down your code here and then share it with your friends so they can decode the secret message.

Circuit Building



Number of Lessons*

Full unit – 25 lessons

Supplemental program – minimum 5 lessons

Best Suited For

- Classroom science instruction

*Lesson = 30–40 min. block, 50% of full unit lessons can be delivered in non-science classes

Spine Fixers

Primary Curriculum	Grade 4
Supplemental Curriculum	Grades 3–5+
Notes	Standard unit/refill kit comes with enough materials for 30 students. Full kit contents can be found online at www.creosityspace.com/spine-fixers.html .
Full Unit (LSF402).....\$725	
Supplemental Unit (Grade 3-LSF003, Grade 4-LSF004, Grade 5-LSF005).....\$650	
Book of Ideas Class Pack (Grade 3-BUS033, Grade 4-BUS043, Grade 5-BUS053).....\$325	

Description

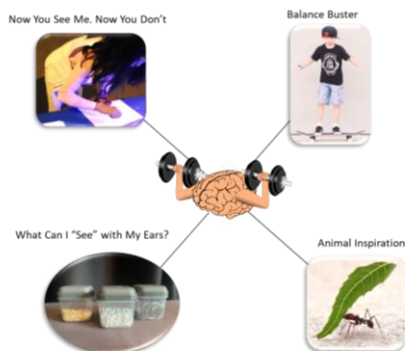
How does your body do what it does?

Have you ever thought about how difficult it would be if you couldn't move your spine? How about what it might take to develop an artificial limb? Join entrepreneurs and pioneers like Glenn, Emily, and others who are developing new technologies and prostheses as they talk about the challenges of designing technology for the human body and the passion they have for what they are doing.

Using the spine and Glenn's newly developed spinal implant as the overarching phenomenon, students will explore how living organisms process information and develop physical structures as they ask themselves: *"What can nature teach us about developing improved artificial limbs and prostheses in general?"*

Main Investigations

The Brain: Commander of Your Universe



Bionic Buddies



Number of Lessons*

Full unit – 22 lessons

Supplemental program – minimum 5 lessons

Best Suited For

- Classroom science instruction
- Afterschool programs

**Lesson = 30–40 min. block, 50% of full unit lessons can be delivered in non-science classes*

Wind Harnessers

Primary Curriculum	Grade 4
Supplemental Curriculum	Grades 3–5+
Notes	Standard unit/refill kit comes with enough materials for 30 students. Full kit contents can be found online at www.creosityspace.com/wind-harnessers.html .
Full Unit (EWH402).....\$900 Supplemental Unit (Grade 3-EWH003, Grade 4-LEWH004, Grade 5-EWH005).....\$850 Book of Ideas Class Pack (Grade 3-BUS033, Grade 4-BUS043, Grade 5-BUS053).....\$325	

Description

What makes the best wind turbine?

Air—invisible to the human eye and seemingly lightweight—often gives us the impression of nothingness. However, anyone who has experienced a tornado, or even a strong windstorm, knows that air is anything but “nothing.” Join Marguerite as she talks about capturing wind to help power our daily activities.

Using the overarching phenomenon of wind turbine design, students will explore the connections between motion, energy generation and transfer, the land around us, and engineering as they ask themselves: “*Can you capture the wind?*”

Main Investigation

Power Providers



Number of Lessons*

Full unit – 22 lessons

Supplemental program – minimum 5 lessons

Best Suited For

- Classroom science instruction
- Afterschool program

**Lesson = 30–40 min. block, 50% of full unit lessons can be delivered in non-science classes*

Sun Catchers

Primary Curriculum	Grade 5
Supplemental Curriculum	Grades 4–5+
Notes	Standard unit/refill kit comes with enough materials for 30 students. Full kit contents can be found online at www.creosityspace.com/sun-catchers.html .
Full Unit (ESC502).....\$950 Supplemental Unit (Grade 4-ESC004, Grade 5-ESC005).....\$650 Book of Ideas Class Pack (Grade 4-BUS043, Grade 5-BUS053).....\$325	

Description

How can you use solar energy to solve a challenge you face?

Did you know that in ONE HOUR enough energy from the sun hits the Earth to supply all the power we need for things like heating our homes, running our electronics, and powering our schools and hospitals? Learn how people like Erica at GRID Alternatives are working to ensure every community has access to renewable resources.

Using the overarching question of “How do we use various forms of solar energy to solve challenges in our lives?” students explore the power and importance of the sun both as an energy source and a member of the cosmos, as they ask themselves: “What are all the different ways we rely on the sun and what is the evidence of its importance in our lives?”

Main Investigations

Solar Sleuthing



WATT's Cooking?



Number of Lessons*

Full unit – 27 lessons

Supplemental program – minimum 5 lessons

Best Suited For

- Classroom science instruction

**Lesson = 30–40 min. block, 50% of full unit lessons can be delivered in non-science classes*

Battery Builders

Primary Curriculum	Grade 5
Supplemental Curriculum	Grades 3–5+
Notes	Standard unit/refill kit comes with enough materials for 30 students. Full kit contents can be found online at www.creosityspace.com/battery-builders.html .
Full Unit (PBB502).....\$725 Supplemental Unit (Grade 3-LCC003, Grade 4-LCC004, Grade 5-LCC005).....\$650 Book of Ideas Class Pack (Grade 3-BUS033, Grade 4-BUS043, Grade 5-BUS053).....\$325	

Description

How can the properties of objects affect how we use them?

Are you tired of your tablets, phones, and toys losing power when you're in the middle of using them? Join Fernando as he talks about his drive to understand how things work and design a better battery.

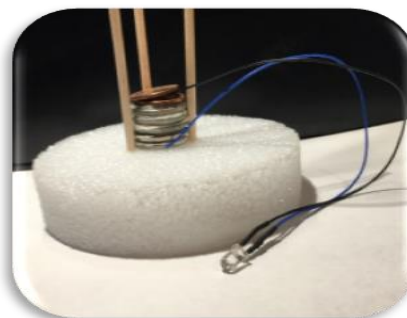
Using the overarching goal of designing improved devices, students explore properties of materials and engineering as they ask themselves: *"How can we make a better battery?"*

Main Investigations

Materials Investigation with Coin Cell Batteries



Battery – LED Design Challenge



Supplies for battery holder included

Number of Lessons*

Full unit – 25 lessons

Supplemental program – minimum 5 lessons

Best Suited For

- Classroom science instruction

**Lesson = 30–40 min. block, 50% of full unit lessons can be delivered in non-science classes*

Community Designers

Primary Curriculum	Grade 5
Supplemental Curriculum	Grades 3–5+
Notes	Standard unit/refill kit comes with enough materials for 30 students. Full kit contents can be found online at www.creosityspace.com/community-designers.html .
Full Unit (ECD502).....\$725	
Supplemental Unit (Grade 3-ECD003, Grade 4-ECD004, Grade 5-ECD005).....\$650	
Book of Ideas Class Pack (Grade 4-BUS043, Grade 5-BUS053).....\$325	

Description

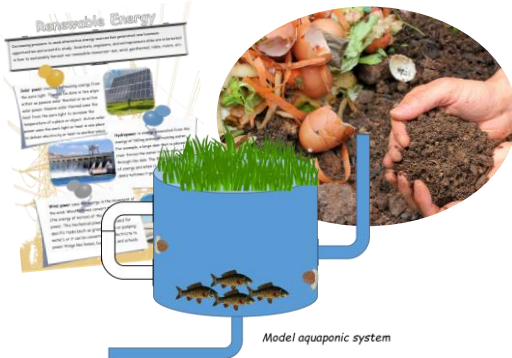
How is my community part of the living ecosystem?

What does your community need for everyone to thrive? Homes? Parks? Food? Technology? Explore ways to balance community, technology, and sustainability as through the stories of Sean, Scott, Stacy, and others.

Using the overarching phenomenon of designing communities that benefit all living organisms, students will explore the different connections that exist between the living organisms and non-living components in local and global ecosystems as they ask themselves: *“How can we create equitable communities that provide opportunities for everyone and use technology in a way that benefits humans and the planet?”*

Main Investigations

What Do I Need? Exploring Ecosystems



Design Your Community



Number of Lessons*

Full unit – 25 lessons

Supplemental program – minimum 5 lessons

Best Suited For

- Classroom science instruction

**Lesson = 30–40 min. block, 50% of full unit lessons can be delivered in non-science classes*

2. Innovation and Entrepreneurship

Book of Ideas Class Pack

Supplemental Curriculum	Grades K–8
Notes	Standard kit comes with enough materials for 30 students. There is no refill kit as all contents are consumable. For more information visit www.creosityspace.com/book-of-ideas.html .
<i>Book of Ideas</i> Class Pack (Kindergarten-BUS0K3, Grade 1-BUS013, Grade 2-BUS023, Grade 3-BUS033, Grade 4-BUS043, Grade 5-BUS053).....\$325	

Description

What can you do with all your ideas?

Develop them in your *Book of Ideas*. Ideas come out of nowhere—and yes, they DO matter. You'll be amazed at the number of ideas you come up with while doing your homework, listening to your teacher, watching your mom or dad cook, playing with friends, or just walking down the street.

Just don't forget to write them down to help them grow!

The *Book of Ideas* in Action



The *Book of Ideas*—Class Pack includes:

- Educator Guide
- 30 copies of the *Book of Ideas* (K1, 2, 3, 4, 5, 6–8 versions available)
- 30 copies of *My STEM Stories™* student notebook (K, 1–2, 3–5, 6–8 versions available)

Number of Lessons*

Minimum suggested is 3 lessons; however, use of the *Book of Ideas* can be expanded to support many in-class activities.

*Lesson = 30–40 min. block

Highlights

- Kids immediately dive in
- Great start for STEM-cautious educators
- Ideal for STEM/Makerspace Centers
- Very flexible (lessons and scripting)

Makerspace Launch and Challenge Packs

Supplemental Curriculum	Grades 1–5 (Launch), Grades 3–8 (Challenge)
Notes	Standard kit comes with enough materials for 30 students. There is no refill kit as all contents are consumable. www.creosityspace.com/makerspace-packs-and-stem-kits.html .
Makerspace Launch (Grades 1,2-MSP011, Grades 3-5-MSP001).....\$400	
Makerspace Challenge (Grades 3-5-MSP002, Grades 6-8-MSP012).....\$400	

Description

While some people find a blank slate energizing and motivating, others can find it a bit intimidating.

The same can be said for a new makerspace with its endless possibilities and focus on more freeform creativity. That's where the CreositySpace's *Makerspace* curriculum can help. Whether you're jump-starting your makerspace with the *Makerspace Launch* Pack or folding concepts around entrepreneurship with the *Makerspace Challenge Pack*, we've got you covered. *Makerspace Launch* can be used for Grades 1–5 and *Makerspace Challenge* can be used for Grades 3–8 as supplemental curriculum.

Makerspace Creations



The *Makerspace Launch* Pack includes:

- Educator Guide
 - 30 copies of the *Book of Ideas*
 - 30 copies of *My STEM Notes™* student notebook
- Grades 1–2 and 3–5 versions available*

The *Makerspace Challenge* Pack includes:

- Educator Guide
 - 30 copies of the *Book of Ideas*
 - 30 copies of the *Cool Kid IP Challenge* reference guide
 - 30 copies of *My STEM Notes™* student notebook
- Grades 3–5 and 6–8 versions available*

Number of Lessons*

Makerspace Launch = 13–22 lessons

Makerspace Challenge = 14–28 lessons

* Lesson = 30–40 min. block, 50% of lessons can be delivered in non-science classes

Highlights

- Kids immediately dive in
- Great start for STEM-cautious educators
- Ideal for STEM/Makerspace Centers
- Very flexible (lessons and scripting)

3. Individual Science and Engineering Kits

My STEM Explorer Kit

Supplemental Curriculum	Grades 1–5
Notes	Standard kit comes with enough materials for 1 student. There is no refill kit as all contents are consumable.
My STEM Explorer kit (Grade 1,2-MSE012, Grade 3-5-MSE035).....\$65	

Description

Where is STEM in your life?

To help bring hands-on science and engineering to life, the *My STEM Explorer Kit (MSE)* includes some of the most popular investigations from four CreositySpace elementary science and engineering units—*Water Watchers*, *Contagion Crushers*, *Sun Catchers*, and *Green Architects*.

Suitable for students in Grades 1–5, the *MSE* includes materials and instructions for seven investigations, a student experimental notebook, and a copy of the *Book of Ideas – Young Inventor’s Journal*. Teacher lesson guide available on orders of 25 or more.

Some STEM Explorations

Collecting Microbes



Learning About Living Walls



Discussing Water Filter Design



Highlights

- Hands-on investigations are drawn from CreositySpace’s robust elementary science curriculum and provide a foundation to support many elementary science and engineering learning objectives.
- Entrepreneur stories and real-world technology descriptions seed early interest in STEM careers.
- Works well for afterschool programs or in classrooms aimed at increasing students’ hands-on science and engineering experiences.
- Includes a copy of the *Book of Ideas* for each student that can be sent home or used in class.

My STEM Designer Kit

Supplemental Curriculum	Grades 3–5
Notes	Standard kit comes with enough materials for 1 student. There is no refill kit as all contents are consumable.
My STEM Designer kit (MSD035).....\$100	

Description

How will you make a difference?

Built around a sustainability theme and using content from four popular CreositySpace elementary science units—*Polymer Prodigies*, *Sun Catchers*, *Community Designers*, and *Green Architects*—the *My STEM Designer* (MSD) Kit provides over 15 hours of hands-on science investigations and engineering challenges for budding investigators to explore.

Additionally, the MSD Kit provides hours of age-appropriate reading about cool STEM fields and introduces your learners to young STEM entrepreneur role models in fields of materials, renewable energy, and sustainable design. Teacher lesson guide available on orders of 25 or more.

Some STEM Designs

The Gold In Your Garbage
Composting Investigation



Invention Discussions with
the *Book of Ideas*



Sustainable Building Design



Highlights

- Hands-on investigations are drawn from robust elementary science curriculum and provide a foundation to support many elementary science and engineering learning objectives.
- Entrepreneur stories, real-world technology descriptions, and community-related engineering challenges seed early interest in STEM careers and show students how they can use STEM in their lives.
- Works well for afterschool programs or in classrooms aimed at increasing students' hands-on science and engineering experiences.
- Includes a copy of the *Book of Ideas* for each student that can be sent home or used in class.

My Creo-Space – Family Engagement Program

Supplemental Curriculum	Grades 1–5
Notes	Standard kit comes with enough materials for 30 students. There is no refill kit as all contents are consumable.
<i>My Creo-Space only (Grade 1-MCS001, Grade 2-MCS002, Grade 3-MCS003, Grade 4-MCS004, Grade 5-MCS005).....\$1000</i> <i>My Creo-Space & Book of Ideas instructional materials (Grade 1-MCS101, Grade 2-MCS102, Grade 3-MCS103, Grade 4-MCS104, Grade 5-MCS105)....\$1150</i>	

Description

Empowering students, Connecting families

The *My Creo-Space* program gives students the power to change how they see themselves using science. *My Creo-Space* provides the tools to support their growing ideas—including family members in the process.

How it works:

1. Your *My Creo-Space* program materials arrive with an individual *My Creo-Space* kit for each student.
2. Each week a different students takes home their *My Creo-Space* kit and works through the innovation challenge with a friend or family members.
3. The following Monday the student brings back the poster describing their innovation and shares it with the class.

My Creo-Space Creations

Aya (10 years old)



This is ROBO the help robot. He is basically something to help people and with his parachute he can be dropped from the sky, and he brings some food and water for people in need.

Ma'ayan (8 years old)



I made this cat treat dispenser because I don't like touching the cat treats.

Each *My Creo-Space* set includes:

- ❖ 30 *My Creo-Space* kits including:
 - A copy of the *Book of Ideas*
 - Challenge instruction cards
 - Innovation workbook and poster
 - Prototype starter kit
 - Drawstring backpack
- ❖ Teacher Instructional guide
- ❖ *Book of Ideas* instructional materials (optional)

Highlights

- Minimal in-class time requirements, minimal teacher preparation requirements, while fostering an environment of creativity and collaboration among students
- “Low stress” way for families to engage in their children’s education: no extra materials are needed, and it is very easy for children to have a successful experience
- Includes a copy of the *Book of Ideas* for each student that can be sent home or used in class

Make Every Classroom a CreositySpace
Find out how at www.CreositySpace.com

Entrepreneur Collaborations &
Corporate Strategic Partnerships

Peg Zokowski

Peg@CreositySpace.com

508.740.5906

General Sales & Professional
Development Programs

Kath Geramita

Kath@CreositySpace.com

Southwest Sales (TX, NM, OK, Mexico)

Miguel Gil

Miguel@CreositySpace.com

South Atlantic Sales (NC, SC)

Angie Blake

Angie@CreositySpace.com

341 Delaware Ave Delmar NY 12054
www.CreositySpace.com



CreositySpace
Connecting Kids to STEM Through Entrepreneurship