ENGINEERING CAMP IN A BOX

Confidence in Science Knowledge

20%

Students increased their confidence in their science knowledge by 20% Interest in Engineering

66%

Students increased their interest of engineering by 66%

Everything you need for an Engineering Camp in a Box.

ARGUMENT-DRIVEN

Confidence in Engineering

73%

Students increased their self-confidence in engineering by 73%

Engineering Camp in a Box

Easily implement a Engineering Camp in your school this summer! The Engineering Camp in a BOX includes everything you need to facilitate an Engineering Camp for either elementary or middle school students.

What does each box include?

- Engineering Design Challenge supplies (enough for 24 students and one teacher).
- Community Building Box with supplies needed to complete five STEM icebreakers to boost participation and build camaraderie.
- Group Toolbox for optimal organization, which includes various engineering tools, such as scissors, hammers, pencils, markers, hobby snippers, screwdrivers, safety glasses, and more.
- Videos and tips about how to set-up and facilitate design challenges
- Agendas, lesson plans, and handouts
- Self-paced online training for the teacher
- 90-Day Subscription to the ADI Learning Hub

Preparing for your Engineering Camp

It's easy to implement your Engineering Camp using the Engineering Camp in a Box. Before starting your Engineering Camp, take the self-paced online training to learn about the ADI instructional model, the specific design challenges, and how to smoothly run an Engineering Camp for 24 to 1000+ students. The self-paced courses contain helpful videos and tips for setting up a successful Engineering Camp. Easily access agendas, handouts, and even flyers online.



"The trainings were very helpful. Being able to see what is expected from each challenge ahead of time was beneficial. I felt very prepared when we started."

In a day of Engineering Camp students...

...will be actively engaged and learning from the opening moments of camp.



TEAM BUILDING

To build a sense of community, students will participate in short, engaging collaborative challenges that build camaraderie and familiarity as students work though the design challenges. **Each Engineering Camp in a BOX comes with 6 community building activities** to use for ice breakers and brain breaks.



ENGAGING DESIGN CHALLENGES

To develop knowledge and skills, students will work through a full design challenge and discover the science, math or engineering principle that is at the heart of the investigation. Each Design Challenge helps students see how they can build something that makes the world a better place!



BRAIN BREAKS

To keep every learner engaged and motivated, throughout the day, students will be posed with short and challenging puzzles. These will continue to develop problem solving and collaboration while also allowing students to recharge from the rigors of the design challenge.



METACOGNITION

The power of reflection is a refined skill that supports students in becoming high-functioning, empathetic members of society. Reflections are purposeful and frequent throughout an ADI Design Challenge.

Research-Based & Standards Aligned

We use the Argument-Driven Engineering instructional model to create all our design challenges. This way of teaching was developed and tested through classroom-based research and then refined over time based on feedback from teachers. We also align each design challenge with national and state standards in science, engineering, and mathematics so teachers can make informed decisions about when and how to use them.

Pictured: Student designed solar water heater

Engineering Camp in a Box Catalog



How many boxes do I need to order?

Each Engineering Camp in a Box allows you to facilitate a design challenge with 24 students and will take approximately two days to complete (up to 12 hours of instruction time). Choose the design challenges that work best for you and your students. We recommend two design challenges for each week of camp that you will offer (per class of 24).

Elementary Design Challenges



HEAT SHIELD FOR PLAYGROUND EQUIPMENT

SKU: SCB001

Students design, construct, and test a solution to the problem of playground equipment getting too hot during the summer.

Each kit has enough supplies for a teacher and 24 students. Each kit will take approximately 2 days to complete (or up to 12 hours of instruction time).

Grade Level: 3rd - 5th Grade \$649.95

Buy Now or Request a Quote



WILDLIFE CROSSING

SKU: SCB002

Students design, construct, and test a solution to the problem of animals being cut off from their habitat by highways.

Each kit has enough supplies for a teacher and 24 students. Each kit will take approximately 2 days to complete (or up to 12 hours of instruction time).

Grade Level: 3rd - 5th Grade \$599.95

Buy Now or Request a Quote



ENERGY EFFICIENT HOUSE

SKU: SCB003

Students design, construct, and test a solution to the problem of of high energy costs during the winter.

Each kit has enough supplies for a teacher and 24 students. Each kit will take approximately 2 days to complete (or up to 12 hours of instruction time).

Grade Level: 3rd - 5th Grade \$649.95

Buy Now or Request a Quote



EYEWASH FOR FIRST RESPONDERS

SKU: SCB004

Students design, construct, and test a solution to the problem of how to treat eye injuries out in the field.

Each kit has enough supplies for a teacher and 24 students. Each kit will take approximately 2 days to complete (or up to 12 hours of instruction time).

Grade Level: 3rd - 5th Grade \$549.95

Buy Now or Request a Quote



Each Engineering Camp in a Box design challenge gives students opportunities to figure out how things work or why things happen.

Elementary Design Challenges

EARTHQUAKE RESISTANT BUILDING

SKU: SCB005

Students design, construct, and test a solution to the problem of keeping people safe in buidlings during earthquakes.

Each kit has enough supplies for a teacher and 24 students. Each kit will take approximately 2 days to complete (or up to 12 hours of instruction time).

Grade Level: 3rd - 5th Grade \$649.95

Buy Now or Request a Quote

SENDING A MESSAGE USING PATTERNS SKU: SCB006

Students design, construct, and test a solution to the problem of communicating over a distance when you don't have a cell phone available.

Each kit has enough supplies for a teacher and 24 students. Each kit will take approximately 2 days to complete (or up to 12 hours of instruction time).

Grade Level: 3rd - 5th Grade \$549.95

Buy Now or Request a Quote





Get HIGH-QUALITY INSTRUCTIONAL MATERIALS in front of your students.

An ADI Engineering Camp in a Box provides...



Rigorous and equitable learning experiences for all students.



Instructional materials that are research-based.



Students with an opportunity to become knowers and doers of math, science and engineering.

The best part of camp was that we got to make things and seeing the outcome of it.

Middle School Engineering Design Challenges



WIND TURBINE FOR OUTDOOR DECORATIONS

SKU: SCB007

Students design, construct, and test a wind turbine that can be used to illuminate outdoor decorations.

Each kit has enough supplies for a teacher and 24 students. Each kit will take approximately 2 days to complete (or up to 12 hours of instruction time).

Grade Levels: 6th - 8th Grade \$699.95

Buy Now or Request a Quote



EMERGENCY SOLAR WATER HEATER

SKU: SCB008

Students design, construct, and test a solar water heater that people can store in their homes and then use after a natural disaster or other emergency.

Each kit has enough supplies for a teacher and 24 students. Each kit will take approximately 2 days to complete (or up to 12 hours of instruction time).

Grade Level: 6th - 8th Grade \$699.95

Buy Now or Request a Quote

"My students were so engaged throughout the ADI STEM Camp! It was a great experience and everyone walked away having learned something! Thank you so much!"

-Engineering Camp Teacher, Fort Bend, Arkansas

INSECT TRAP

SKU: SCB011

Students design, construct, and test a device to measure the biodiversity of a terrestrial ecosystem. The device must sample insects in the ecosystem while not catching any larger organisms, such as small mammals.

Each kit has enough supplies for a teacher and 24 students. Each kit will take approximately 2 days to complete (or up to 12 hours of instruction time).

Grade Level: 6th - 8th Grade \$649.95

Buy Now or Request a Quote



INSULIN STORAGE CONTAINER

SKU: SCB010

Students design, construct, and test a container for storing and shipping insulin that keeps 6 or more vials of insulin cold for at least 24 hours regardless of the outside temperature. Each kit has enough supplies for a teacher and 24 students. Each kit will take approximately 2 days to complete (or up to 12 hours of instruction time).

Grade Level: 6th - 8th Grade \$649.95

Buy Now or Request a Quote

Much more than tinkering and making!



GRAVITY LIGHT



Students design, construct, and test a light that can be powered by gravity. The gravity light must change the kinetic energy of a falling mass to transfer from the object to a generator.

Each kit has enough supplies for a teacher and 24 students. Each kit will take approximately 2 days to complete (or up to 12 hours of instruction time).

Grade Level: 6th - 8th Grade \$649.95

Buy Now or Request a Quote



HEAT PACKS FOR COLD SNAPS

SKU: SCB012

Students design, construct, and test a heat pack that uses a chemical process to release thermal energy. The heat pack must reach a temperature of 40 degrees Celsius for at least 10 minutes.

Each kit has enough supplies for a teacher and 24 students. Each kit will take approximately 2 days to complete (or up to 12 hours of instruction time).

Grade Level: 6th - 8th Grade \$599.95

Buy Now or Request a Quote



Visit the ADI YouTube Channel to hear what students have to say about their Engineering Camp designs.

Enjoy teaching again, all the prep is done!

I have a 4-Day Engineering Camp with 100 students attending. How many STEM boxes do I need?

Use the table below to determine the recommended number of boxes to purchase. Need more help? <u>Contact us</u> -- we're here to help!

Number of Students	Recommended Number of STEM Boxes
24	2
48	4
100	8
200	16
300	24
400	32
500	40

1 Week Camp (4 - 5 Days)

2 Week Camp (9 - 10 Days)

Number of Students	Recommended Number of STEM Boxes
24	4
48	8
100	16
200	32
300	48
400	64
500	80

3 Week Camp (14 - 15 Days)

Number of Students	Recommended Number of STEM Boxes
24	6
48	12
100	24
200	48
300	72
400	96
500	120



"The best part about camp this week was that I was able to build a highway safety barrier and I never knew that was thing until Tuesday at STEM Camp."

–8th Grade Student

It went 1000x better than expected and all the prep was done for me! —Engineering Camp Teacher, Summer 2022 TON CALEMAN A LA

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ENGINEERING CAMP IN A BOX

Zero prep. Infinite Possibilities!

Need help or want to learn more? We're here to help!



Connect with our team: howdy@argumentdriveninquiry.com



Give us a call: 866-372-1034

Ready to purchase? Request a quote or buy your Engineering Camp in a Box online.



Buy your Engineering Camp in a BOX online, visit: shop.argumentdriveninguiry.com

Request a Quote by emailing: orders@argumentdriveninquiry.com

