bildits™ EDUCATION

STEAM PROGRAM OVERVIEW

June **2025**

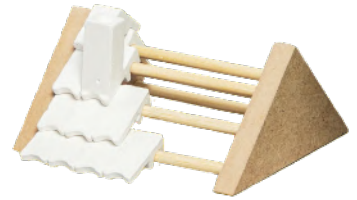
Bildits Education - Movie

https://www.youtube.com/watch?v=XlpMja2c-rQ

Bildits Emulation of Real Life Construction - Movie

https://www.youtube.com/watch?v=qp70MOjaLoo

Bildits Recognitions



"Bildits is a unique STEM construction toy from Lebanon that I predict will be a hit when it becomes more widely available"

– Forbes Magazine

"Bildits is such a robust and value add product for the education market, especially in the US "

– Brian Specht,
VP of Operations at Lego

STEM.ORG AUTHENTICATED™

STEM.ORG AUTHENTICATED™
RECOMMENDATION

20 YEARS 2001 2021 CELEBRATING STEM EDUCATION

To: Bildits s.a.l.
From: Initiative Science dba STEM.org
24001 Southfield Rd #107
Southfield MI USA 48075
Tax ID: 90-0511868
Subject: Letter of Support

Date: 10/26/2020

Dear Wael and Rayan et al.,

Please accept my sincere congratulations! I'm writing to inform you that Bildits scored in the top 94 percentile of all 2,300+ STEM products authenticated by our organization since 2014. This achievement exhibits a true excellence in Science, Technology, Engineering and Mathematics (STEM) education. Your innovation helps strengthen learning skills while promoting STEM education. This accomplishment will serve as an inspiration to others who aspire to be the best and reaffirms your ability to captivate those who value STEM at home and in their communities.

Your brand's inherent role in the educational ecosystem (both direct & indirect) has placed it in the unique, but challenging position of leading others by example, while striving for continued improvement in the ever-changing, highly competitive 21st century global economy. It is a well-deserved and hard-won achievement in which you should be proud.

Keep aiming high and thank you for your unyielding support for STEM education.

Warm Regards,

Andrew B. Raupp, IEL Fellow
Founder/ Executive Director
+1.313.377.3777 (Direct)

CC: STEM.org Board / George P. Butler III, Esq. / Paul Mersino, Esq. / Muskan Ali, Esq.

Applying STEM To Better Understand It™

"Your brand's inherent role in the educational ecosystem has placed it in the unique but challenging position of leading others by example"

"Bildits scored in the top 94 percentile of all 2,300+ STEM products"

Bildits Education STEAM Program Overview

1 Holistic STEAM Approach to Education

Bildits Education is a STEAM program that empowers schools to create an **inquiry-led, learner-centered, and transdisciplinary** environment.
It fosters meaningful connections across subjects through hands-on, project-based learning.

2 Authentic Tools, Classroom-Ready Kits

Our kits feature Bildits' **patented small-scale building components** and specially modified tools that have been reimagined to ensure **children's safety and ease of use.**
No extra equipment required !

3 Curriculum-Aligned, Ready-to-Teach Resources

Our projects and lessons **align with IB, NGSS, and Cambridge curricula,** providing teachers with clear, **easy-to-follow guidance and all the resources needed** to create an engaging, effective learning experience.

4 Applied Learning for Future Ready Classrooms

By applying STEAM principles to real-world construction challenges, learners not only **build practical engineering and design abilities** but also **develop essential 21st-century skills,** all while progressing through **learning objectives aligned with the school's curriculum.**

1- Holistic STEAM Approach to Education

TRANSDISCIPLINARY

Transdisciplinary Learning
Combines knowledge from science, math, social studies, engineering, and arts.

Real World Contexts
Makes learning meaningful by applying skills within realistic, practical scenarios.

Critical Thinking Development
Encourages critical thinking by tackling complex, real-world challenges.

Problem Solving Focus
Builds problem-solving abilities through hands-on, engaging activities.

INQUIRY-BASED

Problem Driven Projects
Each project begins with a challenge or problem, sparking curiosity and engagement.

Solution Oriented Learning
Students explore and investigate to ultimately develop solutions.

Inquiry-Based Framework
Lesson plans are structured around Kath Murdoch's inquiry cycle to guide students' learning journey:

1. Tuning In
2. Finding Out
3. Sorting Out
4. Going Further
5. Reflecting & Acting

LEARNER-CENTERED

Personalized Learning
Students take ownership and actively engage through choices in the inquiry Process.

Self-Directed Exploration
Students plan their research paths and make decisions, creating diverse project contexts.

Open-Ended Approach
Encourages flexibility and creativity within projects, fostering unique outcomes.

Collaborative Reflection
Students engage in self-assessment and peer feedback to foster growth and reflection.

2- Authentic Tools, Classroom-Ready Kits

Kit Contents and Components

Bildits' patented miniature building components and tools are specially adapted for safe and easy use by children. All kits are certified to meet strict international children safety standards.

All materials are included in the kit, everything needed to bring the full experience to life directly in the classroom. No special lab or extra equipment required.

Tools & Materials Included

- Bricks of various shapes
- Wooden Base + Blueprints
- Wooden Doors & Windows
- Wooden Roof Structure
- Wooden Mechanical Parts
- Rooftiles
- Bildits Patented Cement Mix
- Bildits Origami Molds for Cement Mixing
- Painting Set with brush
- Trowel
- Shovel
- Putty

2- Authentic Tools, Classroom-Ready Kits

Bildits Education Kits per Grade

INTRO TO ARCHITECTURE & CONSTRUCTION
GRADES: 1 | 2 | 3

HOUSE & YARD
GRADES: 4 | 5 | 6

GCC HERITAGE HOUSE
GRADES: 4 | 5 | 6

AMUSEMENT PARK
GRADES: 3 | 4 | 5

WATERMILL
GRADES: 4 | 5 | 6

3- Curriculum-Aligned, Ready-to-Teach Resources

Curriculum-Based Units by Grade

Our International Curriculum Alignment

USA

- Next Generation Science Standards (NGSS)
- Common Core State Standards (CCSS)
- National Core Arts Standards (NCAS)

UK

- Cambridge Curriculum
- National Curriculum for Science

GLOBAL

- International Baccalaureate (IB)

Units Covered per Grade Level

Kit	Grades	Units (10-12 Lessons available for each unit)
Introduction to Architecture & Construction	1 | 2 | 3	· Home & Family · Light & Shadows · Ecosystems · Materials · Water as a Natural Resource · Natural Disasters
Amusement Park	3 | 4 | 5	· Simple Machines & Forces
Watermill	4 | 5 | 6	· Forms of Energy · Transformation of Energy
House & Yard	4 | 5 | 6	· Layers of Earth · Earth Pollution · States of Matter · Physical and Chemical Change · Matter and Its Interactions
GCC Heritage House	4 | 5 | 6	

Note: Each project centers on a specific unit, with learning objectives aligned to grade-level standards set by international curricula. A version of each project is adapted to fit IB, Cambridge, NGSS, and Common Core frameworks.

3- Curriculum-Aligned, Ready-to-Teach Resources

Teachers Resources

Detailed lesson plan for each session

- Step-by-Step Guide
- Vocabulary
- Engineering Tips
- Engaging Strategies
- Differentiation Techniques
- Reflection Prompts
- Assessment Rubrics

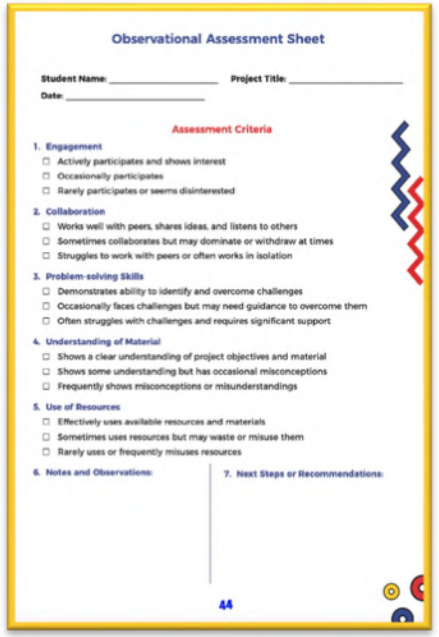
Presentations & Videos

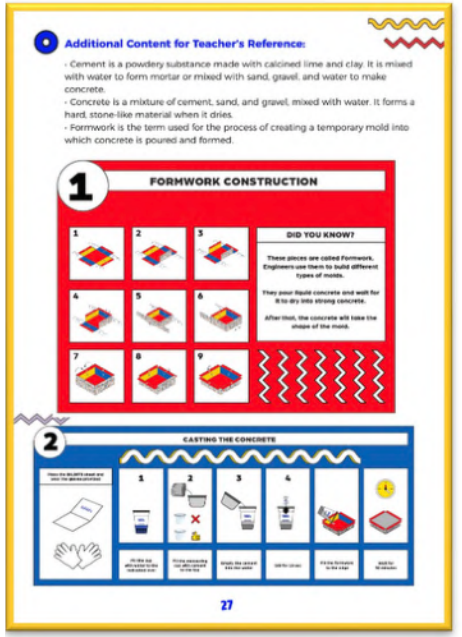
- Supporting Presentations
- Tutorial Videos
- Real Life Construction Videos

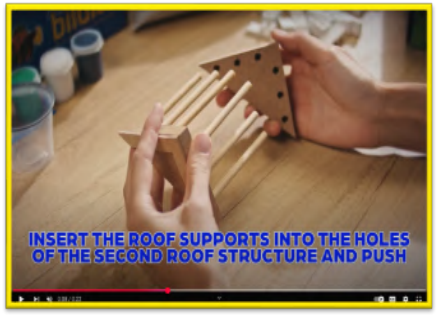
Students Assessment Sheet

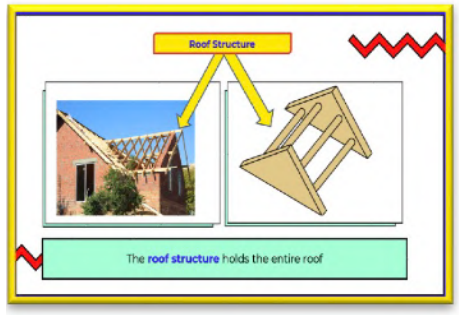
Training of Trainers

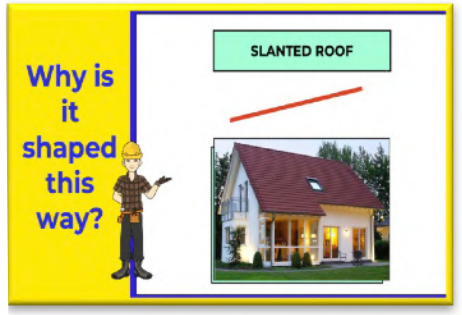
Online Tutorials











3- Curriculum-Aligned, Ready-to-Teach Resources

Available Lessons for each Unit - Example

HOME & FAMILY

OVERVIEW Students will build their own homes and explore the role family members
BILDITS KITS Introduction to Architecture & Construction
RECOMMENDED GRADE Grade 1

PART 1 : PRE-CONSTRUCTION

Lesson 1: **Tuning in:** Provocation into the Problem Scenario and figuring out what the inquiry is about

Lesson 2: **Finding Out:** Inquiring into homes and habitats

Lesson 3: **Finding Out:** Investigating what makes a good home or habitat with Math integration

Lesson 4: **Sorting Out:** Building understanding of the role of home and family & designing own homes

PART 2 : CONSTRUCTION

Lesson 5: **Going Further:** Applying learning in a new context and starting construction

Lesson 6: **Going Further:** Moving forward in the construction of the house and documenting the process

Lesson 7: **Going Further:** Finalizing construction with Math integration

PART 3 : POST-CONSTRUCTION

Lesson 8: **Reflecting and Acting:** Finalizing & Presenting the booklet as a solution to the original problem

Lesson 9: **Reflecting and Acting:** Using Creativity to design and add elements to the house context

Lesson 10: **Reflecting and Acting:** Sharing learning with others and presenting peer feedback

Lesson 11: **Reflecting and Acting:** Self- reflection & Taking action

3- Curriculum-Aligned, Ready-to-Teach Resources

Available Resources for each Unit - Example

HOME & FAMILY

OVERVIEW Students will build their own homes and explore the role family members
BILDITS KITS Introduction to Architecture & Construction
RECOMMENDED GRADE Grade 1

Lesson 1	**Scenario-based Letter**
Lesson 1	**T-Chart to Assess Prior Knowledge**
Lesson 2	**Introduction to Animal Habitats**
Lesson 2	**House Posters**
Lesson 2	**Animals & Homes Matching Game**
Lesson 3	**Tally Chart for Items & People in a House**
Lesson 4	**Rubric 1: Rubric for Home Design Sketch**
Lesson 4	**Rubric 2: Rubric for Key Understandings**
Lesson 4	**Craft House Instructions**
Lesson 4	**House Template 1**
Lesson 4	**House Template 2 (A4)**
Lesson 4	**House Template 2 (A3)**
Lesson 5	**Tips for Creating a Booklet**
Lesson 8	**Booklet Rubric**
Lesson 10	**Assessment of Process Skills**
Lesson 10	**Self-Assessment Checklist**

4- Applied Learning for Future Ready Classrooms

Bildits Education leverages the interdisciplinary nature of construction and design to foster deep, curriculum-aligned learning across three core dimensions

Curriculum-Aligned, Grade-Specific Learning

Each project is carefully **aligned with grade-level learning outcomes** defined by the school's curriculum and is designed to **complement what students are learning** in their core subjects.

The units **integrate hands-on construction tasks with concepts in math, science, design, and languages** that directly reinforce and enrich the topics being explored in class at the same time.

Foundational Skills in Engineering and Design

Bildits introduces learners to **foundational engineering principles** such as structure, load distribution, material properties, blueprint interpretation, and the transition from design to implementation—all through **age-appropriate, project-based learning.**

By **simulating real-world construction processes,** learners gain manual dexterity, practice safe tool use, and begin to think like engineers and designers—**bridging academic knowledge with practical application.**

Development of 21st-Century Skills

The program **cultivates essential 21st-century skills**—including critical thinking, creativity, collaboration, and resilience—by engaging students in open-ended **construction challenges that mirror real-world scenarios.**

Through inquiry-driven tasks and hands-on problem-solving, learners are encouraged to **analyze complex situations, propose innovative solutions, and work effectively in teams** while developing the perseverance needed to iterate and improve their designs.

4- Applied Learning for Future Ready Classrooms

Project Learnings Overview per Unit - Example

HOME & FAMILY

OVERVIEW Students will build their own homes and explore the role family members
BILDITS KITS Introduction to Architecture & Construction
RECOMMENDED GRADE Grade 1

DEVELOPMENT OF KNOWLEDGE AND CONCEPTS THROUGH THE CONTENT OF LEARNING

CONCEPTUAL UNDERSTANDING	Identifying specific needs allows living things to create their habitats in diverse locations and manners.
BRIEF DESCRIPTION	This unit explores how living things build homes suited to their needs and introduces different habitat types.
BIG IDEA	Living things make their homes in various places and in different ways that express their needs.
MAIN CONCEPTS	Home, Cause, Effect , Systems , Structure , Function , shelter, needs, resources, materials, environment, relationships.

DEVELOPMENT OF SKILLS RELATED TO THE PROCESS OF LEARNING

THINKING SKILLS	**Generating Novel Ideas:** Think about different solutions to problems when I am playing or doing something
RESEARCH SKILLS	**Data Gathering and Documenting:** Record observations through drawing or writing
COMMUNICATION SKILLS	**Reading:** Read and understand instructions **Interpreting:** Say something about images and language when they are together **Speaking:** Say what is meant using words and sentences | Speak clearly so that others understand

POSSIBLE LEARNING OUTCOMES

1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.
2. Develop as a caring individual
3. Show open-mindedness towards other kinds of homes and families
4. Understand the purpose of a home and habitat for living
5. Develop perspective about the different types and styles of a home
6. Make connection to the importance of the environment, resources, and needs in determining the type of home needed
7. Understand the significance of a good home and what it provides
8. Design personal homes according to needs
9. Share logical ideas in groups about home design according to needs

4- Applied Learning for Future Ready Classrooms

US Standards Mapping - Example

HOME & FAMILY

BILDITS EDUKITS My First House

CROSS CUTTING CONCEPTS Cause-Effect | Systems Structure | Function | Home | Shelter Needs | Resources | Materials | Environment | Relationships

K-ESS3-1. Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live.

K-2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.

K-2-ETS1-3. Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs

MP.2 Reason abstractly and quantitatively. (K-ESS3-1)

MP.4 Model with mathematics. (K-ESS3-1), (K-ESS3-2)

K.CC Counting and Cardinality (K-ESS3-1), (K-ESS3-2)

Creating Art –Investigating: VA:Cr2.1.1a: Explore uses of materials and tools to create works of art or design.

Responding to Art- Interpreting: VA:Re9.1.1a: Classify artwork based on different reasons for preferences.

4- Applied Learning for Future Ready Classrooms

Cambridge Standards Mapping - Example

HOME & FAMILY

BILDITS EDUKITS My First House

CROSS CUTTING CONCEPTS Cause-Effect | Systems Structure | Function | Home | Shelter Needs | Resources | Materials | Environment | Relationships

Cambridge Assessment International Education

Cambridge Science

2Be.01. Know that an environment in which a plant or animal naturally lives is its habitat

2Be.02. Know that different habitats contain different plants and animals

Cambridge Assessment International Education

Cambridge Math

2Nn1. Count, read and write numbers to at least 100 and back again

2Ml1. Estimate, measure and compare lengths, weights and capacities, choosing and using suitable uniform non-standard and standard units and appropriate measuring instruments

2Ml2. Compare lengths, weights and capacities using the standard units

2Pt11. Consider whether an answer is reasonable

4- Applied Learning for Future Ready Classrooms

21st Century Skills Acquired

Our program is dedicated to **nurturing students' growth** while equipping them with **essential 21st century skills & dispositions** to thrive in an ever-changing world

DIVERGENT THINKING

Critical & Creative thinking
Problem solving
Transfer of knowledge
Metacognition

COMMUNICATION

Presenting to a group
Discussing within a group
Active listening
Teamwork
Media Representation

SELF-MANAGEMENT

Stress Management
Self-Confidence
Patience and focus
Commitment
Time & resource management

PSYCHOMOTRICITY

Hand – Eye Coordination
Manual Dexterity
Precise Use of Tools
Spatial Awareness

BILDITS EDUCATION KITS

Kits & Corresponding Learning Units - Grades 1 to 6

KIT	RECOMMENDED GRADE	Students per kit[1]	Units Covered (10-12 lessons per unit)
Introduction to Architecture & Construction 	1 | 2 | 3	10	• Home & Family • Light & Shadows • Ecosystems • Materials • Water as a Natural Resource • Natural Disasters
Amusement Park 	3 | 4 | 5	2	• Simple Machines & Forces
Watermill 	4 | 5 | 6	1	• Forms of Energy & • Transformation of Energy
House & Yard 	4 | 5 | 6	1	• Layers of Earth • Earth Pollution • States of Matter • Physical and Chemical Change • Matter and Its Interactions
GCC Heritage House 			

[1] Based on 1 project per student. Schools may opt for pairs or small groups

Introduction to Architecture & Construction - Units Covered

Units covered per Project
(10-12 lessons per unit)

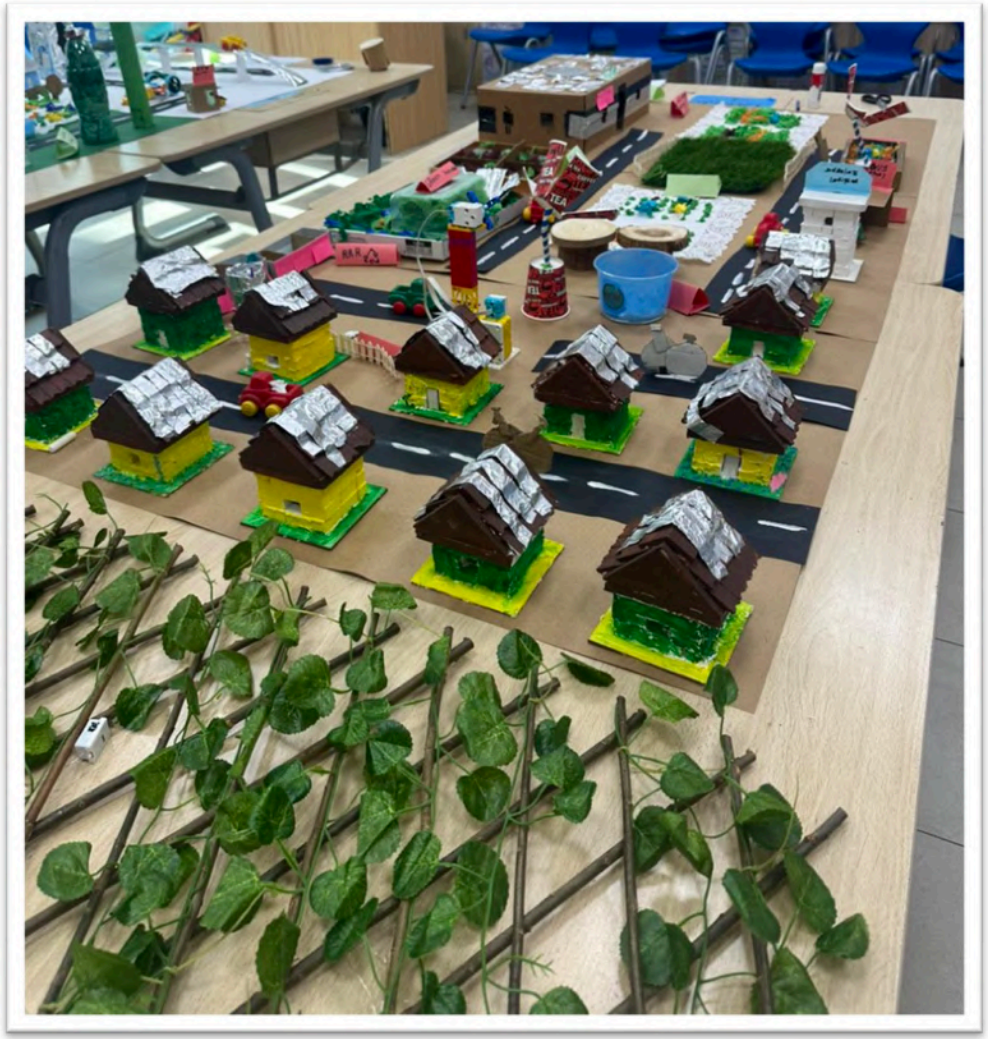
Home & Family	Ecosystems	Water as a Natural Resource
Light & Shadows	Materials	Natural Disasters
Recommended for Grade 1	Recommended for Grade 2	Recommended for Grade 3

Note: Each project is focused on a specific unit, incorporating a problem solving scenario, provocations and inquiries that revolve around that central topic. Units were chosen based on the STEM learning objectives per grade set by major international curricula like IB, Cambridge, NGSS (Next Generation Science Standards) and CCSS (Common Core State Standards)

Introduction to real-world engineering with actual construction tools and thinking

Introduction to Architecture & Construction - Unboxing

Introduction to Architecture & Construction - Students Exhibit



GEMS Modern Academy - Dubai

Introduction to Architecture & Construction - Students Exhibit

English Modern School Doha - Qatar

Amusement Park - Units Covered

Units covered per Project
(10-12 lessons per unit)

Simple Machines & Forces

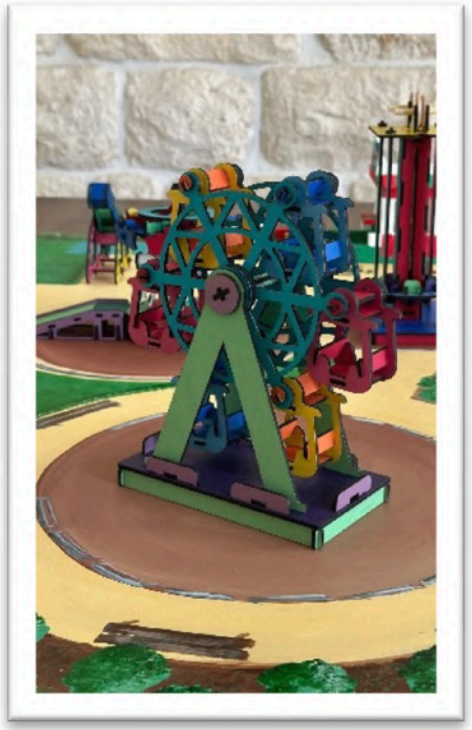
Recommended for
Grade 3 , 4 , 5

Note: Each project is focused on a specific unit, incorporating a problem solving scenario, provocations and inquiries that revolve around that central topic. Units were chosen based on the STEM learning objectives per grade set by major international curricula like IB, Cambridge, NGSS (Next Generation Science Standards) and CCSS (Common Core State Standards)

Build an amusement park and explore simple machines— pulley, lever, wheel & axle, and slop while learning about forces


TICKETS

Amusement Park - Rides & Simple Machines

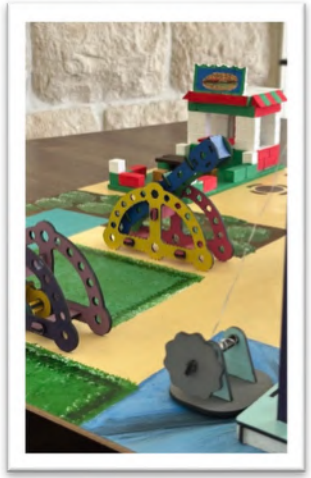


Ferris Wheel
Wheel & Axle

Carroussel / Ramp
Wheel & Axle / Slope

Elevator
Pulley

Drop Tower
Pulley



Catapults
Lever

Restaurant

Ticketing Booth

Watermill - Units Covered

Units covered per Project
(10-12 lessons per unit)

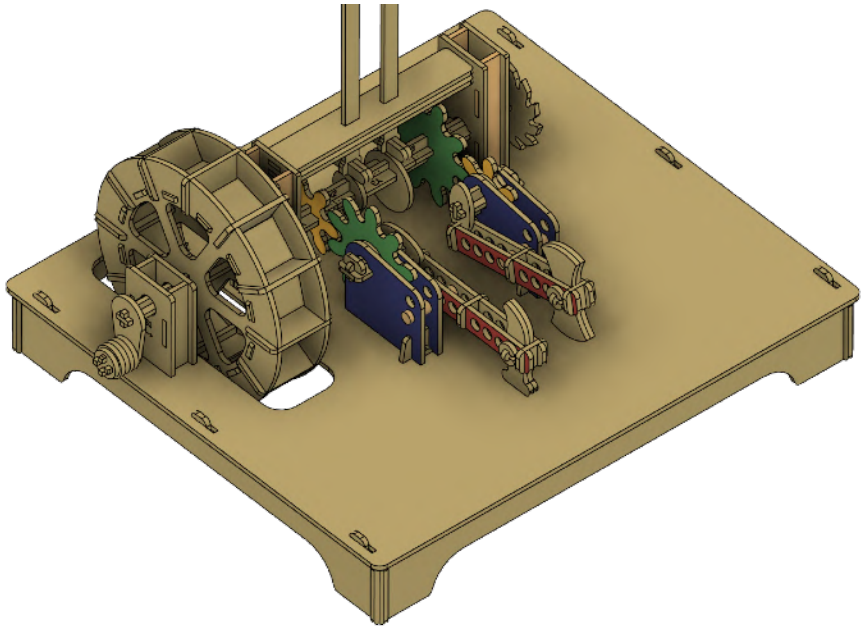
Forms of Energy and Transformation of Energy

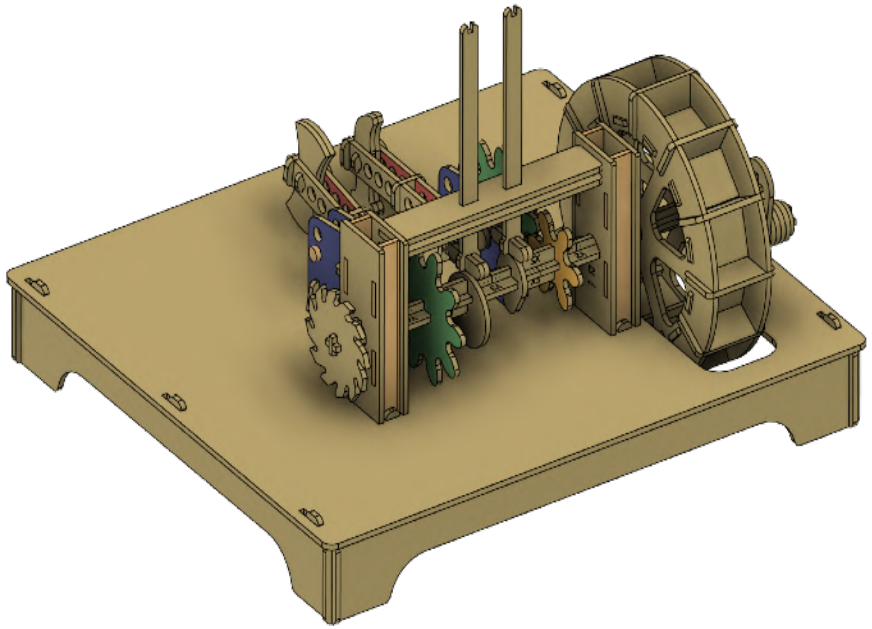
Recommended for
Grade 4 , 5 , 6

Note: Each project is focused on a specific unit, incorporating a problem solving scenario, provocations and inquiries that revolve around that central topic. Units were chosen based on the STEM learning objectives per grade set by major international curricula like IB, Cambridge, NGSS (Next Generation Science Standards) and CCSS (Common Core State Standards)

Build a functional hydropowered mill to explore sustainable energy transformation using gears and cams

Watermill - Gears and Mechanical Parts





House & Yard - Units Covered

Units covered per Project
(10-12 lessons per unit)

Recommended for Grade 4	Recommended for Grade 5	Recommended for Grade 6
Layers of Earth	States of Matter	Matter & its Interactions
Earth Pollution	Physical & Chemical Change	

Note: Each project is focused on a specific unit, incorporating a problem solving scenario, provocations and inquiries that revolve around that central topic. Units were chosen based on the STEM learning objectives per grade set by major international curricula like IB, Cambridge, NGSS (Next Generation Science Standards) and CCSS (Common Core State Standards)

Design and build a house with yard and pond and create a miniature ecosystem.

GCC Heritage House - Units Covered

Units covered per Project
(10-12 lessons per unit)

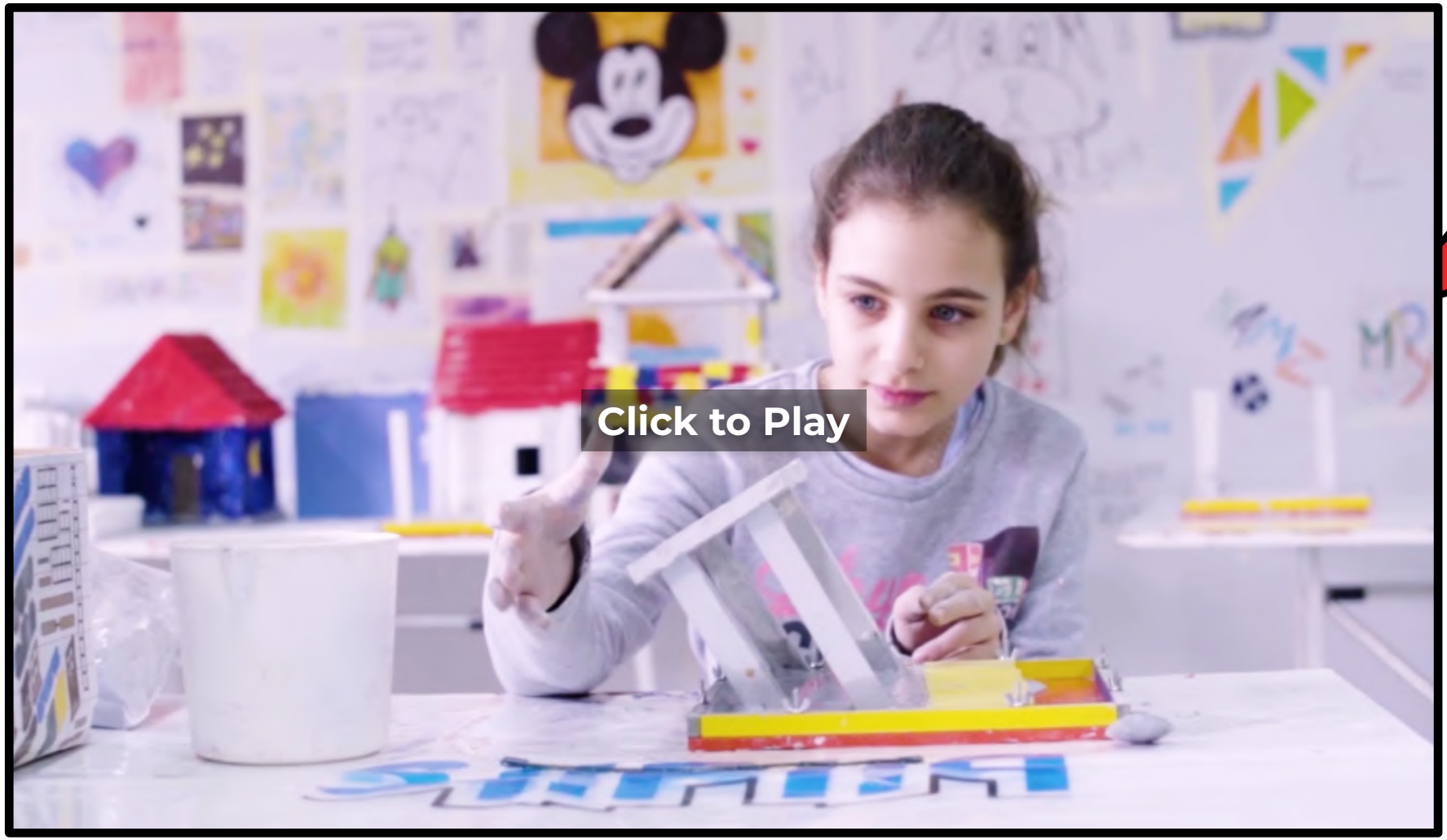
Recommended for Grade 4	Recommended for Grade 5	Recommended for Grade 6
Layers of Earth	States of Matter	Matter & its Interactions
Earth Pollution	Physical & Chemical Change	

Note: Each project is focused on a specific unit, incorporating a problem solving scenario, provocations and inquiries that revolve around that central topic. Units were chosen based on the STEM learning objectives per grade set by major international curricula like IB, Cambridge, NGSS (Next Generation Science Standards) and CCSS (Common Core State Standards)

Integrate engineering, art, and history through the research, design, and construction of a traditional GCC House.

APPENDIX

Bildits Students Testimonial - Movie



https://www.youtube.com/watch?v=3joJv8FMtBk


bildits
Ready-Set-Create


bildits
2nd bildits


bildits


bildits
1st bildits

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