

Maker Space Introduction Lesson

The “E” in STEM

Lesson Title: Introducing a Maker Space	
Content Objective: Students will be able to describe the meaning of the “E” in STEM. Students will be able to build a bridge as a group using toothpicks and marshmallows.	
Introduction (I do) 10 min.	Teacher reads the book “Iggy Peck: Architect” to the class. Throughout the book the teacher will stop to ask questions and check for understanding. <ul style="list-style-type: none">• Begin by having students think of a time when they had a dream.• Think-pair-share at key points in the text to have students discuss what it means to have a dream, and following those dreams when others believe them to be impossible.• Discuss architecture and how it impacts our lives.• Connect the “E” in STEM to the story and today’s activity.
Activity 15 min.	Teacher will tell students that today they will have the opportunity to be architects themselves. <ul style="list-style-type: none">• Pass out materials: toothpicks, marshmallows, plastic cups, and hand sanitizer (if you want them to eat the marshmallows after)• Tell students that their task, like in “Iggy Peck Architect” is to build a bridge from one plastic cup to another. They can use as much or as little materials as they would like and their bridge can be any design, as long as it accomplishes the goal: get to the other side safely.• Students must work together and try their best.
Assessment 5 min.	Teacher walks around during the activity and make observations of student’s progress. Then, the class will test their bridges by “walking” across them one at a time using a popsicle person. After, students will evaluate themselves on their process and the meaning of the letter “E” in STEM by answering the following questions: <ul style="list-style-type: none">• Did you enjoy this activity? Why or why not?• What challenges did you face working together as a team?• Was your bridge a success? Why or why not?• What does the letter “E” in STEM mean to you?
Next Steps	Introduce students to other materials in the Maker Space that they can use for engineering projects. Have students go around to various ‘stations’ with things like magnetic tiles, brain flakes, and Legos, as well as a specific challenge for them to accomplish. Give students 5-8 minutes per station to explore the materials. During this time teacher walks around enforcing expectations and monitoring student progress.