

Activity Title:	Design a Bridge/Iggy Peck Architect
Timeframe:	~40 Minutes
Big Ideas and/or Essential Questions:	Essential Question-How can I create a bridge to support 10 washers. Key Vocabulary-communication, collaboration, critical thinking, creativity, team work, Engineering and Design Process, constraints, predict, prototype effective, troubleshoot, failure points and plan.
PA Standards:	Next Generation Science Standards Practices -Asking questions and defining problems -Planning and carrying out investigations
Learning Target(s):	- I can build a bridge collaboratively with my team of engineers.
Materials:	<i>Iggy Peck Architect by Andrea Beaty</i> Engineering and Design generic poster 10 straws 6 notecards 5 paper clips Tape 2 plastic cards 1 foot of yarn Washers to test (10) Google Images of different types of bridges

Activity Procedures:	1. Read the book Iggy Peck Architect. 2. Review the Engineering and Design Process 3. Explain the Design a Bridge Engineering Challenge-Design a sturdy bridge that can hold the weight of 10 washers without breaking. Your team needs to agree on the design and materials you will use. 4. Students place themselves into groups of 3. 5. Give 20 minutes for the students to build their bridges. 6. As the students finish their challenges ask them to raise their hands to test their bridge. 7. If the group's bridge fails, encourage them to improve their prototype. 8. If time allows, invite the students on a gallery walk to view the different bridges that were created. Each group should explain their design.
Assessments:	Call students back to the carpet and discuss what worked well and how their group improved their bridge design. Review key vocabulary

