

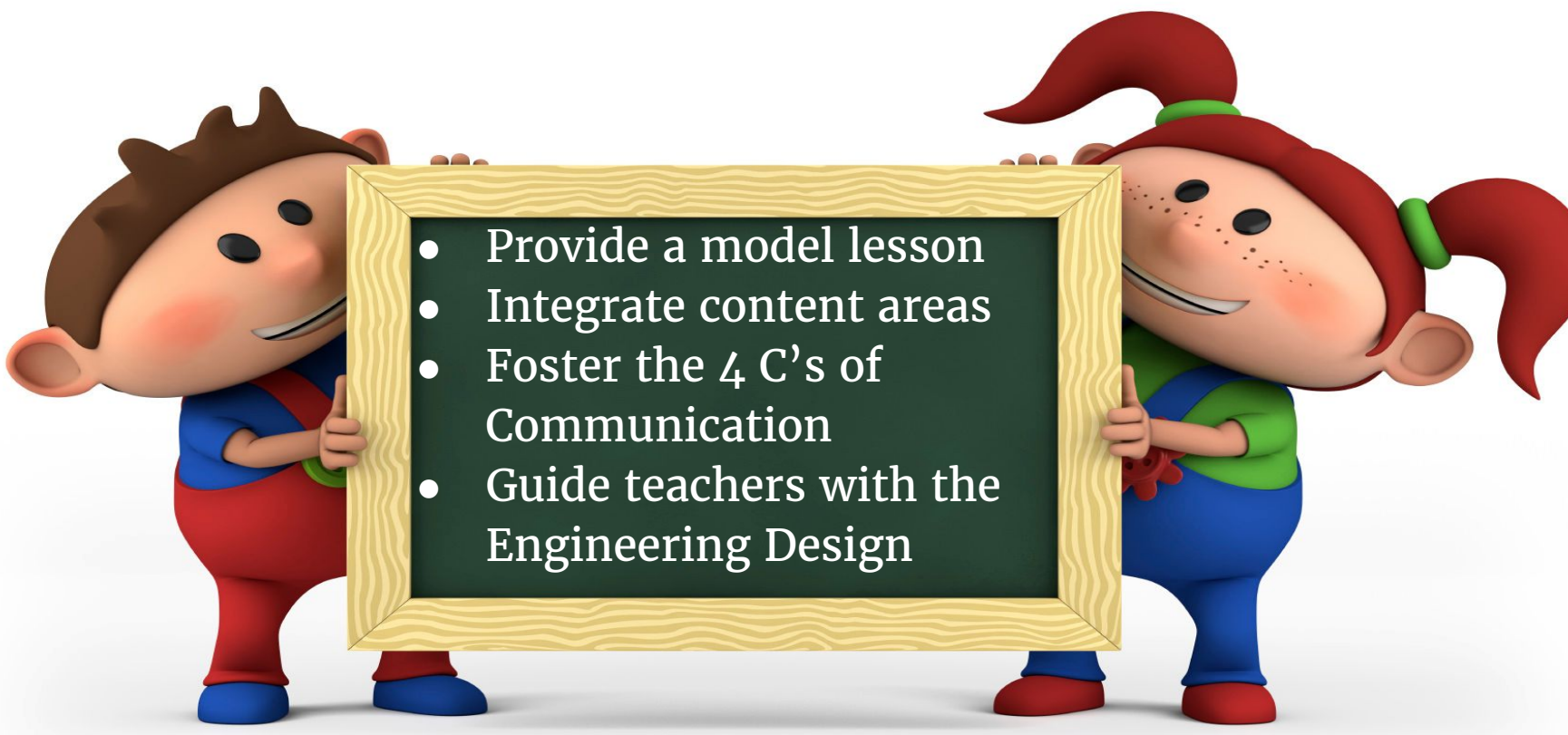
Not your Kiddos' Legos- The Building Blocks Project (A STEM-architecture Lesson Across the Curriculum)

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Objectives:

- 
- Two cartoon children, a boy and a girl, are holding a large sign. The boy is on the left, wearing a blue shirt and red pants. The girl is on the right, wearing a green shirt and blue pants. The sign is a dark green rectangle with a light-colored wooden frame. It contains a list of four objectives.
- Provide a model lesson
 - Integrate content areas
 - Foster the 4 C's of Communication
 - Guide teachers with the Engineering Design

4 C's of Learning:



Instant Challenge

Challenge: Stack cups using a rubber band and strings

- Everyone must be holding a string at all times
- Only the rubber band may touch the cups
- You will have 6 minutes to create a pyramid of cups



COMMUNICATION
Creativity
CRITiCaL ThiNkiNg
CoLLaBoRaTioN

TEAMWORK



Exemplary	Proficient	Partially Proficient	Not Effective
<p>Consistently stays focused on the task and what needs to be done. Listens politely to others' opinions. Asks for others' opinions.</p>	<p>Focuses on the task and what needs to be done most of the time. Other group members can count on this person. Listens to others.</p>	<p>Focuses on the task and does what needs to be done some of the time. Other group members must sometimes remind this person to keep on task. Doesn't care about others' opinions as much as would be polite.</p>	<p>Rarely focuses on the task and what needs to be done. Lets others do the work</p>



SPEAK IN EMOJIS-

Identify the emoji that best describes how you feel about the STEM Infusion.



STANDARDS-BASED-APPROACH

The teacher looks at all of the standards being taught at the time and creates a design challenge where all of the standards are practiced.

*“The patterns in our brain are organized based on the way the information was input.”
-Wesson, 2012*





Social Studies – GLE 3.2.3, 3.4.1, 3.4.3, 3.4.5, 3.9.2

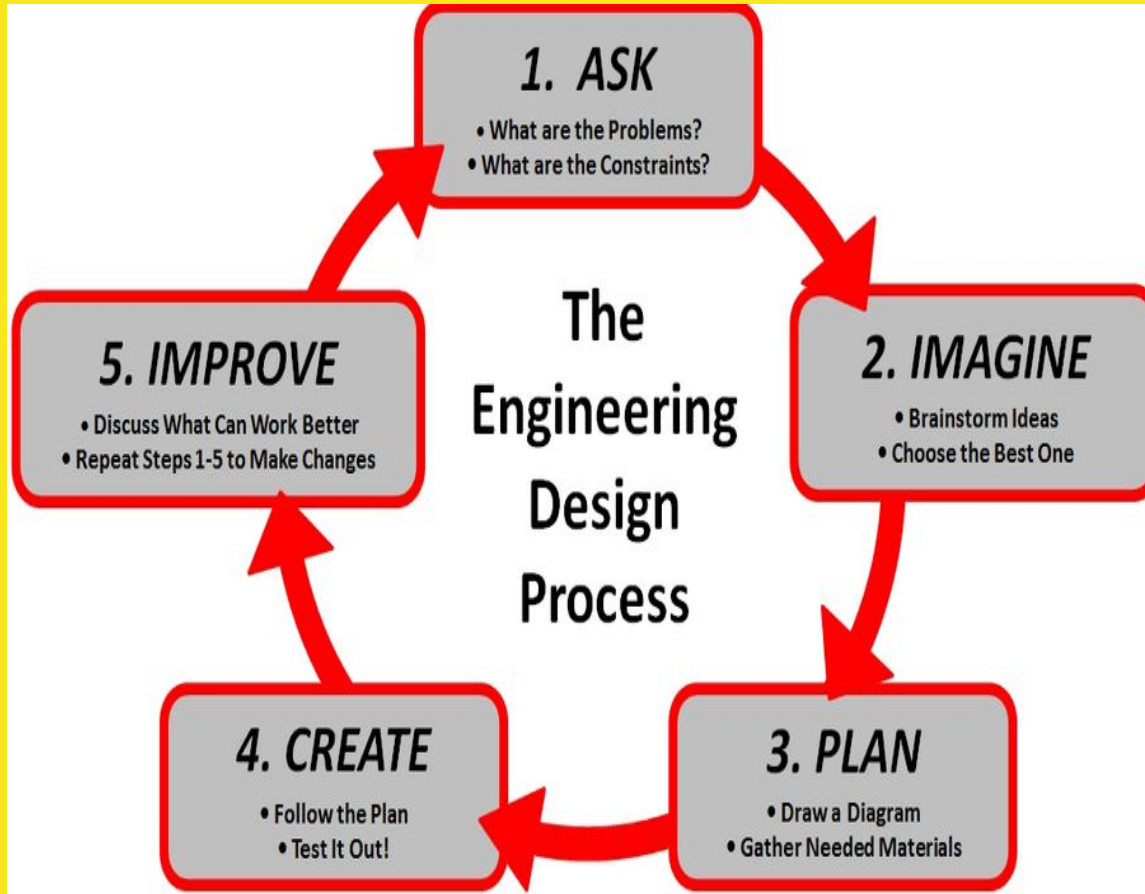
ELA - Writing Explanatory Texts - 3.2.a,b,c,d

Math: 3 . MD 5, 6,7

Objectives:

- **Organize writing and use professional vocabulary in writing**
- **Write a poem about the responsibilities of a professional or a concept discussed (teamwork, safety, social responsibility)**
- **Use mentor text as a guide for organization**
- **Use grids for planning spatially with social responsibility concepts**
- **Design and build with professional design strategies**

Engineering Design Process



Day 1
Teamwork

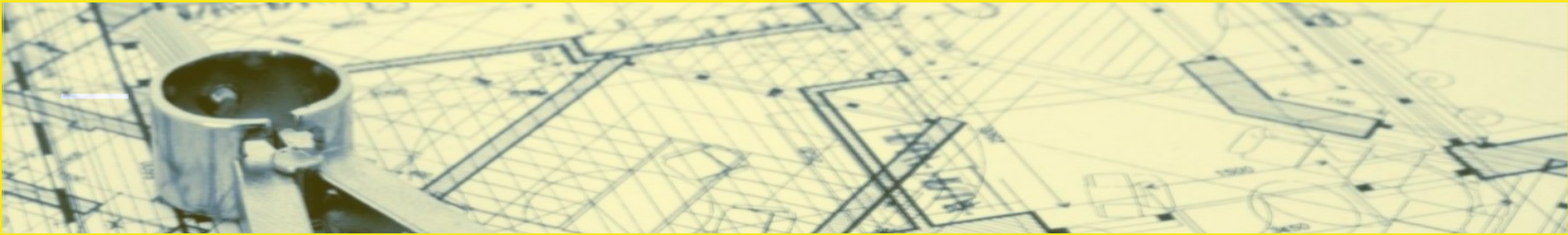
Day 2
Social Responsibility and
Teamwork

Day 3
Part 1 – Safety, Social
Responsibility, and Teamwork

Part 2 Writing Day

Day 4
The Build: Safety, Social
Responsibility, and Teamwork

YOUR CHALLENGE!



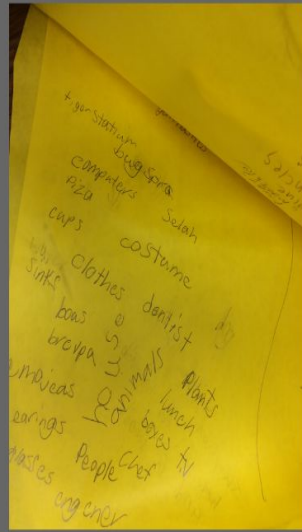
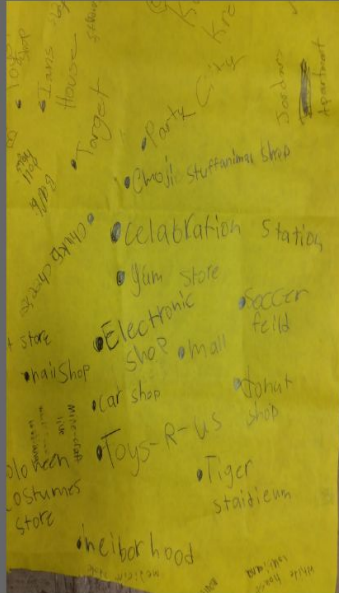
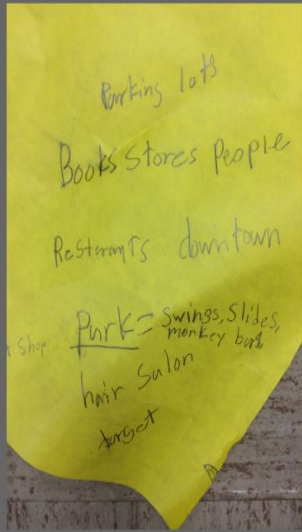
Your city planning board would like to plan and build an ideal city with the limited time and materials given.

Planners will follow the Engineering Design Process.



ASK : What does an ideal city look like to you? What is in it?

Imagine an ideal city. What would be in it?



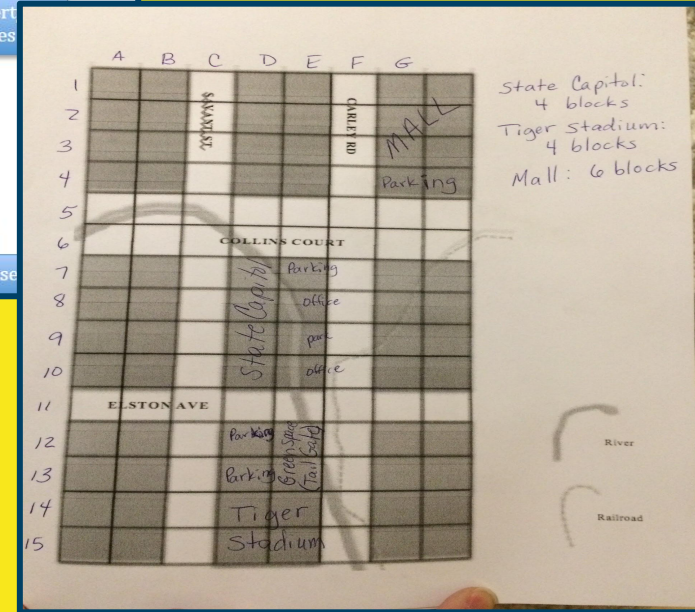
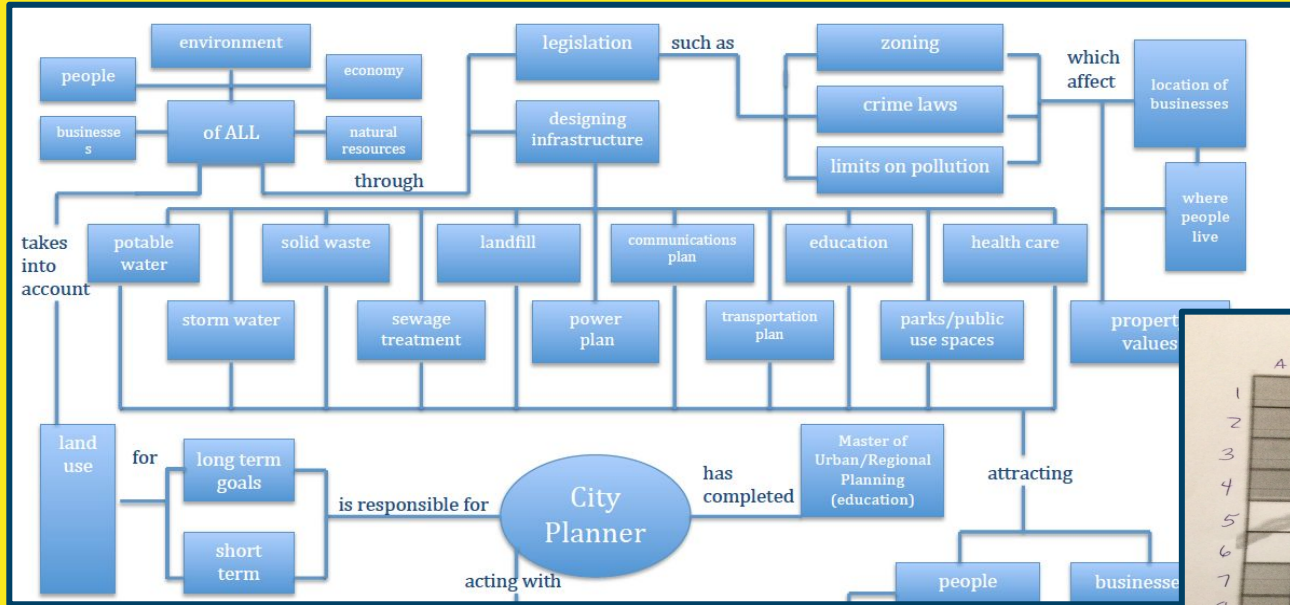
Scan the QR code using your phone, and type your response.

Imagine/Research

Book: IGGY PECK
Architect
Reflect

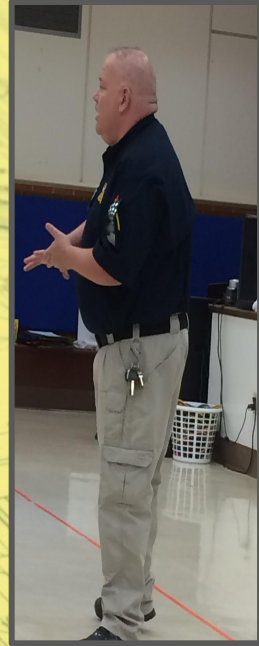


RESEARCH - Think Like a City Planner



PLAN/CREATE/TEST

- Involve Community professionals
- Mini-build with design support



CREATE/IMPROVE

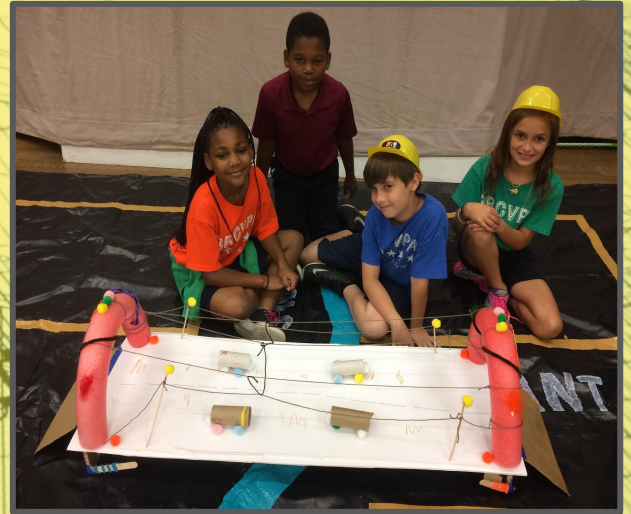
Hands-on

Choose the Best Solution

Do Development Work

Build Prototype

Test and Redesign



YOUR TURN TO COMPLETE THE CHALLENGE!

Your city planning board would like to plan and build an ideal city with the limited time and materials given. Planners will follow the Engineering Design Process.

- **Using the materials in your box, design, test and build a building that will physically fit into a 1 foot by 1 foot square.**
- **The building must have at least 1 movable part (elevator, window, etc).**
- **The building must meet your zoning requirement, as specified in your box. Refer to the written list of zone explanations in your box.**
- **Extension: include landscape features.**

Close/Reflect:

The Important Thing About Safety

The important thing about safety is listening.

It is good to have ways out, and it is good to follow directions when something happens. It is good to have a strong building if a tornado comes, and it is good to have a safety code to make sure it is safe, but the important thing is listening.

Fawwaz, Mrs. Collins' Class

The Important Thing about Teamwork

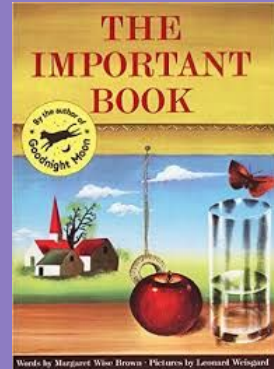
The important thing about teamwork is that you can help each other.

It is to be polite to others, and it is staying on task.

It is asking for others' opinions and it avoids arguments,

But the important thing is that you help each other.

Jordan, Mrs. Collins' Class



YOUR TURN TO REFLECT

The important thing about _____ is that it is _____.

It _____, and it _____, and _____ and it _____,

but the important thing about _____ (repeats first blank) _____ is that it is _____ (repeats second blank) _____.

