

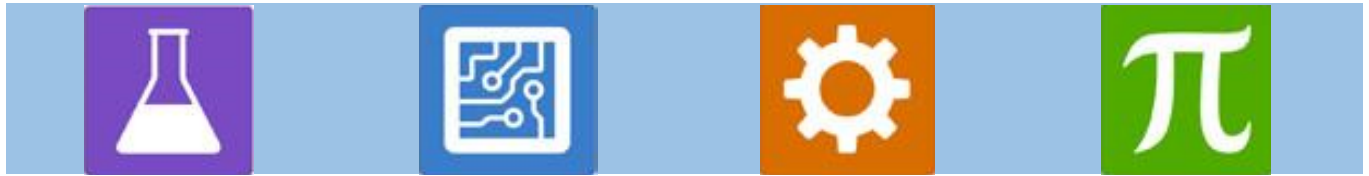


STEM STUDENT PACKET



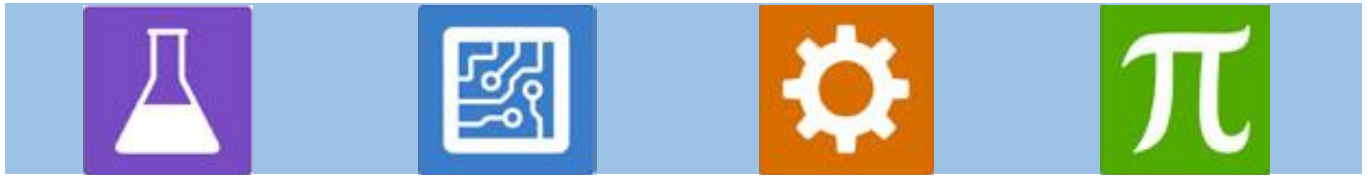
Name _____

Section _____



STEM VOCABULARY

*Add key vocabulary words and images/drawings

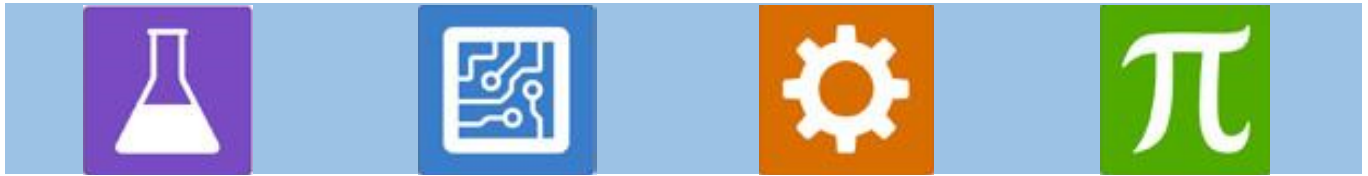


Student Name:

Step I: Ask

Define the real-world problem / measurable goal

CHALLENGE



Research

Working Packet

Group # ____

Section: ____

Student Name: _____

Partner's Name: _____

RESEARCH

Directions: Watch the video ["Severe Weather: Crash Course Kids #28.2"](#) in class and answer the following questions.

1. What is severe weather?
2. How can we create a shelter to protect ourselves from severe weather?
3. What do you think could be added to your shelter to protect you from extreme weather?

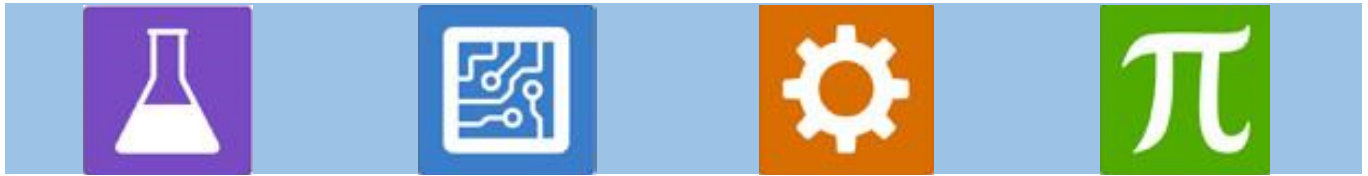


Step 2: Planning

Student Name: _____

Partner's Name: _____

Brainstorm ideas, sketches, designs etc.

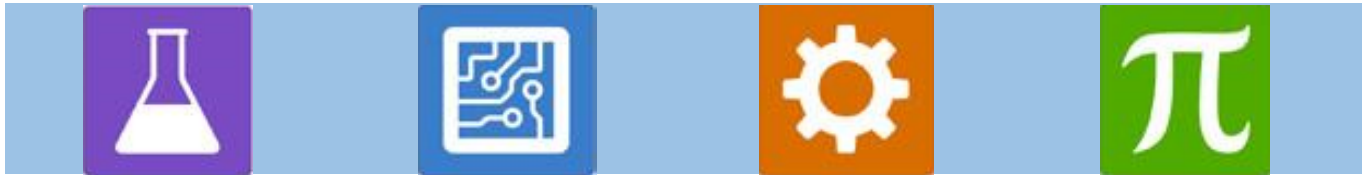


Step 3: Prototyping

Design the Prototype

(Create a labeled diagram of your prototype.)

Materials:



Step 4: Testing

Test your Prototype - Collect your Data

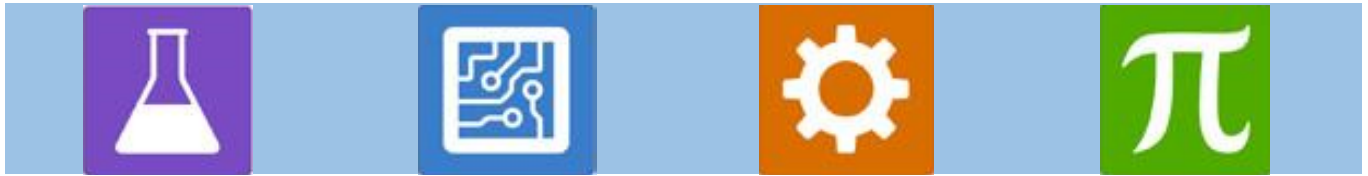
Design A	Trial 1	Trial 2
Seconds my shelter hold up		
Round the seconds to the nearest 10		

Design B	Trial 1	Trial 2
Seconds my shelter hold up		
Round the seconds to the nearest 10		

Find the sum of the time my shelter holded up:

How did your plan go?



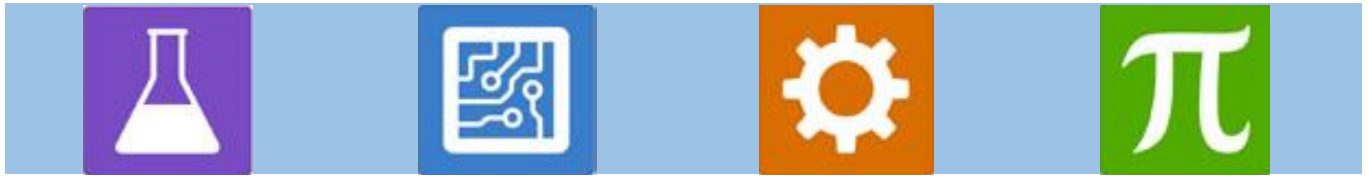


Step 5: Improve

RE-Design the Prototype

(Create a labeled diagram of your prototype.)

Materials:

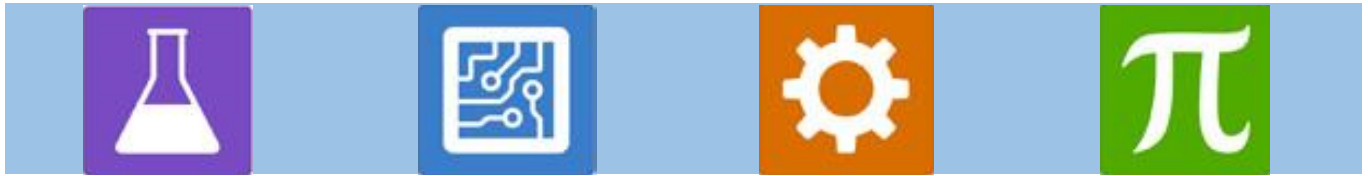


Step 6: Communicate your findings.

Use the application **Keynote** on your iPad to create a presentation to explain what you did on your project.

Your presentation should have the following parameters:

- At least 4 slides
- 1 title slide with the title of the challenge and the name of the student and the team members
- At least 2 pictures of their designs
- At least 1 video of their testing
- Different colored slide's background
- Bold and underlined titles



REFLECTION

Did you test your design?



Did your prototype work?



Did you make improvements to your design?



Did you enjoy this challenge?

