

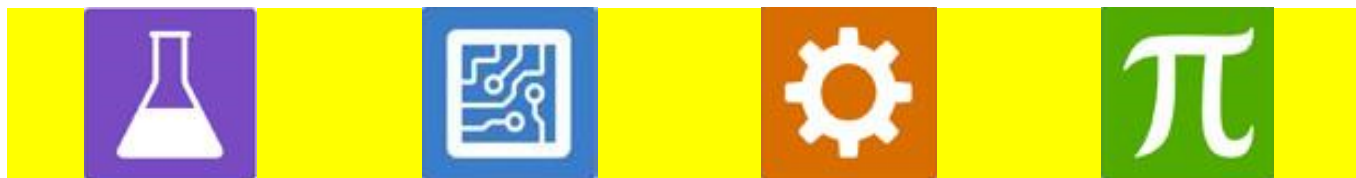
Stem

Student packet

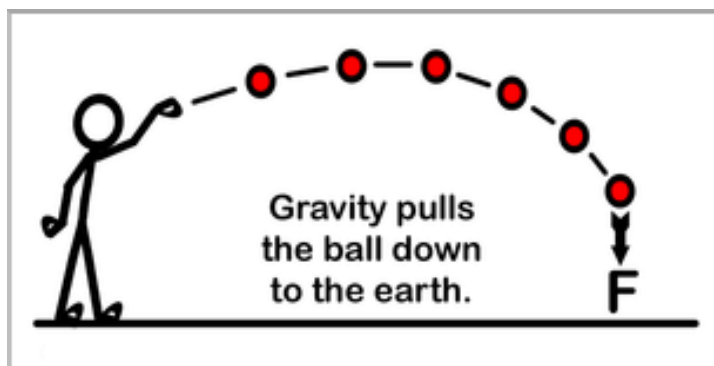


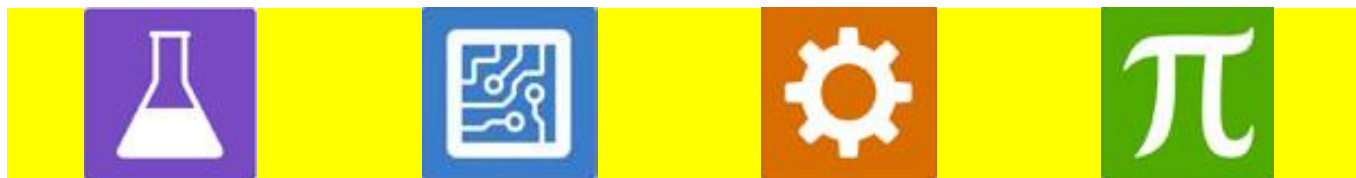
Name _____

Section _____



STEM Vocabulary





STEM- Apple-A-Head

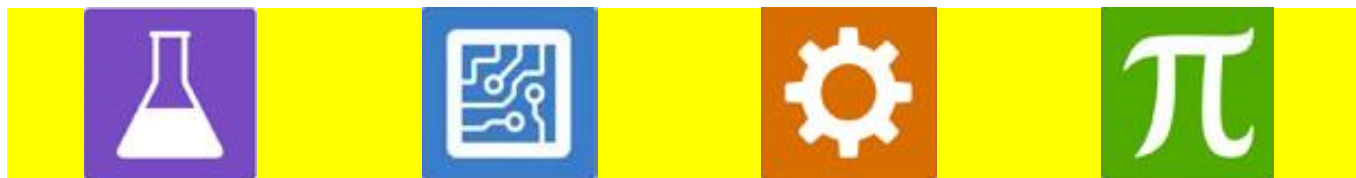
Building Background Knowledge

Working Packet

Directions: After watching the videos in class, answer the following questions using complete sentences.

Respond

1. What is gravity?
2. What is mass?
3. Why will an object fall down to the ground when released from above?



STEM- Apple-A-Head

Research

Working Packet

Group # _____

Section: _____

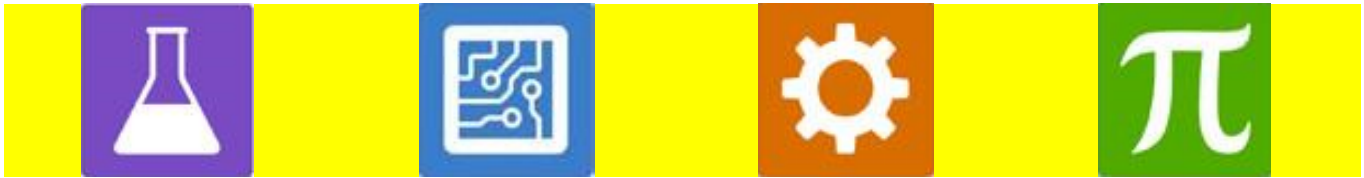
Student Name: _____

Partner's Name: _____

Challenge: Engineer a head tray (basket), using school supplies (pencils, rubber bands, masking tape, pipe cleaners, aluminum foil, paper lunch bags, craft sticks, manila folders, and yarn) that will be able to hold an apple for at least 30 seconds while walking a 3 meters distance.

Research

(Sources: **Science Notebook, Elevate Science Textbook, and/or Discovery Education.** Note the **sources** you used, including **page numbers, titles, and/or links** in the provided space below.)



Group # _____

Section: _____

Student Name: _____

Partner's Name: _____

Give your project a title:

Design the Prototype

(Create a labeled diagram of your prototype.)

Materials

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Group # _____ Section: _____
 Student Name: _____
 Partner's Name: _____

Test your Prototype - Collect your Data

Apple-A-Head Design #1

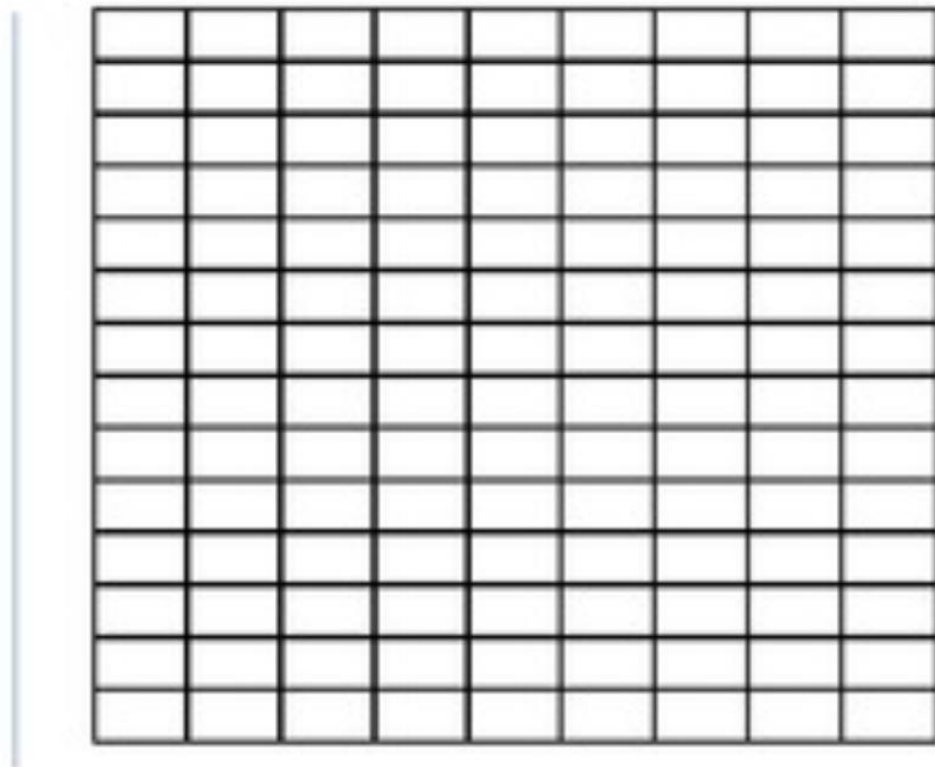
	Trial 1	Trial 2
Time (seconds the apple stay on the head tray)		
Distance (centimeters walked with the apple on the head tray)		

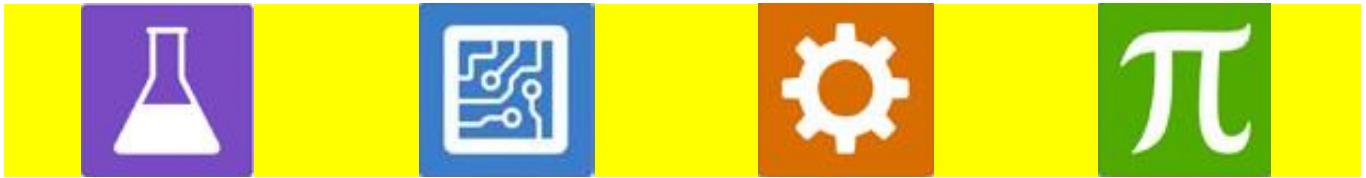
Apple-A-Head Design #2

	Trial 1	Trial 2
Time (seconds the apple stay on the head tray)		
Distance (centimeters walked with the apple on the head tray)		



Graph





Group # _____

Section: _____

Student Name: _____

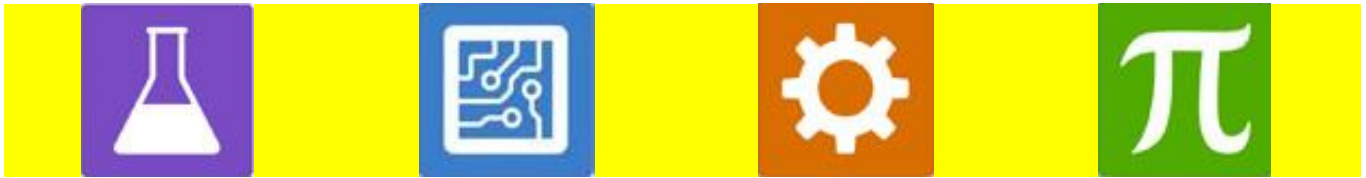
Partner's Name: _____

Improve the Prototype

(Re-design your Prototype. Create a labeled diagram of your improved prototype.)

Materials

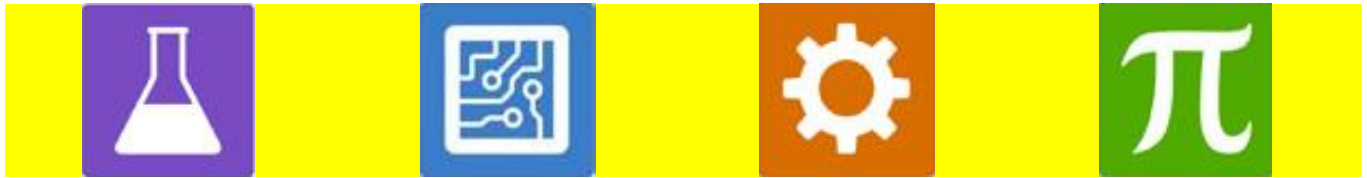
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Group # _____	Section: _____
Student Name: _____	
Partner's Name: _____	

Reflection Questions

1. In what way did you improve your prototype?
2. Do you expect the improved prototype to pass the challenge? Why?
3. What did you learn? Discuss your success or lack of success and reasons for it.



Make a Keynote – Use *Keynote* to create a presentation following the instructions below.

Parameters:

- ⇒ At least five slides with colorful background
- ⇒ A title slide with the group number and team members
- ⇒ A slide transition.
- ⇒ Three pictures of their designs
- ⇒ 1 video of their testing
- ⇒ 1 recorded audio explaining if their prototype worked and why they think it did or didn't.