3D – MARBLE MAZE

7TH GRADE

Written by Sony Gala

CTAE
RESOURCE NETWORK

ENGR-II-2: Students will examine the core concepts of engineering and technology.

Construct a simple technological system
Explain how your technological system operates

ENGR-II-3: Students will demonstrate engineering design and problem solving skills.

Troubleshoot a product or system.

ENGR-II-6: Students will develop leadership skills and work ethics.

Demonstrate work ethics within the classroom and lab environment.

Engineering Design Process

The steps in the process include:

- Defining the challenge
- Explore ideas
- Plan & Develop
- Test idea
- Present the solution

Challenge

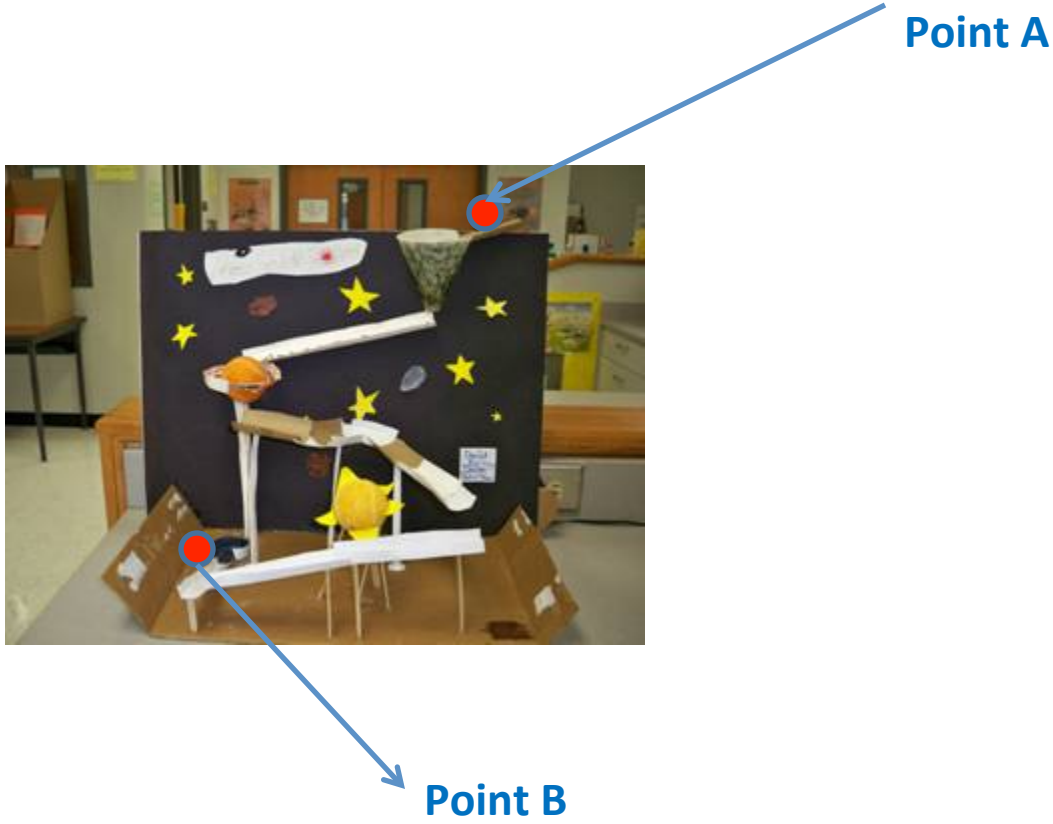
- You and your partner will use the engineering design process to plan, design, construct and evaluate a device to keep a marble rolling from point A to Point B for the longest time.

Design Requirements

- Theme
- Name for maze
- Drop
- Zig - Zag
- Loop or spiral
- Speed bumps
- 10” or taller

Design Criteria

- Point and A and point B must be placed on in opposite corners.



Tools and Materials

- Poster Board, card board flat
- Masking tape
- Glue gun and glue sticks
- Scissors and X-acto knife
- Supply of craft sticks and 2 paper cups.
- **You may bring in any recycled items – plastic bottles, spoons, forks, tissue rolls, straws, tooth picks, paper clips, etc.**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JACKPOT


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THE CRAZY JOY Ride


M+Ms Gone Broadway

- One person on team clean out drawers
- Go to www.brainpop.com **(login: rcps, password: rcps)**
- Go to Science; Motion, Forces & Time.
- Watch video on distance, rate and time.
- Copy formula.
- Calculate the distance from point A to point B in inches.
- http://www.online-stopwatch.com/

Calculate Rate at which the Marble travels through the maze

	Distance in inches	Distance in feet (inches/ 12)
Track 1		
Track 2		
Track …		

Rate =	Time (seconds)	X	Distance (feet)