

## The aMAZEing Hexed Bug

Create a maze which your hex bug can navigate through. Your maze **MUST** have an entrance and an exit. Include as many of the obstacles from the chart as you can – your goal is to get the highest number of points!

<b>OBSTACLE</b>	<b>POINTS</b>
An entrance and exit	Required
Right angle	1 point
Tunnel	1 point
Loop	2 points
Obstacle to go over	2 points
Obstacle to go around	2 points
Sound change	3 points
Moving obstacle	3 points

### Materials

- Cardboard sheet
- Construction paper
- Cardstock
- Paper plate
- Paper bowl
- Round foam piece
- Paper tube piece
- Plastic fork
- Plastic spoon
- Pipe cleaners
- Small craft sticks
- Large craft sticks
- Small cups
- Large cups
- Scrap bin items

### Tools

- Scissors
- Tape
- Ruler

### ASK

What information do you need in order to solve the problem? What questions do you have so that you can be successful?

### IMAGINE

What ideas do you and your teammates have for creating a maze for your hexed bug? What is your team's best idea?

## PLAN

Sketch out and label your plan on paper.

## CREATE & TEST

Create a maze and test your design. Be sure to keep track of your points as you test!

OBSTACLE	POINTS	OUR GROUP'S POINTS
An entrance and exit	Required	
Right angle	1 point	
Tunnel	1 point	
Loop	2 points	
Obstacle to go over	2 points	
Obstacle to go around	2 points	
Sound change	3 points	
Moving obstacle	3 points	

## IMPROVE & RETEST

Take a moment to pause. What is going right? What is going wrong?

**Scientists study the world as it is; Engineers create the world that has never been.  
- Theodore von Kármán**