

## Lesson 2 - Go-Kart Station

### **LEARNING OBJECTIVES:**

1. Students will collect data on time it takes for each student to complete 4 laps (1 mile) to determine average velocity using the formula,  $d = vt$

**NYS Standards:** MST 1,2,4

### **SKILLS and CONCEPTS**

- Gather and record time data
- Understand that speed/velocity is a function of time and distance. Thus, they need to know the length of the course and a method for measuring time and distance

### **Procedure:**

1. Break students into pairs
2. One student times their partner while he/she drives 4 laps
3. Record time
4. Repeat 2 and 3 switching places
5. At park classroom or school, use  $d=vt$  where  $d$ =distance (mile),  $v$ =velocity, and  $t$  = time

### **Resources Required:**

stop watches, journals/clipboards, go-carts, calculators

### **Preparation Required:**

- practice timing -hand clap exercise to track time
- calculator use
- formula substitution - answer (units) label

### **Assessment:**

- Correct use of formula
- Complete data table
- Answer w/units
- Rubric: (attached)

### **Possible Extensions:**

- Written Reflection
- Challenge Activity (See journal)
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- Measure the track – Inside  
Outside } How close  
Middle } to one – quarter  
mile is it?
- Scale model of track

**Activity #2**

**Go Carts**

**Partner's Name** \_\_\_\_\_

**Partner's Time (4 Laps)** \_\_\_\_\_

**Your Time** \_\_\_\_\_

**Rounded to the nearest tenth of second** \_\_\_\_\_

**Rounded to the nearest whole second** \_\_\_\_\_

**Calculation - Determine v**

<b>Formula -</b>	<b>d=vt</b>
<b>Substitution</b>	
<b>Answer</b>	

**Challenge:**

**At your tour recorded speed, how long would it take to drive the go-cart back to school?**

**Odometer at Park** \_\_\_\_\_

**Odometer at back at School** \_\_\_\_\_