

# **Lesson Six: Critical Thinking**

## **Observe – Measure - Predict**

**Key Concept:** The importance of this lesson is sharpen skills for observation, investigation and prediction.

### **Activity:**

Use a Solar Panel and Fuel Cell Car Kit

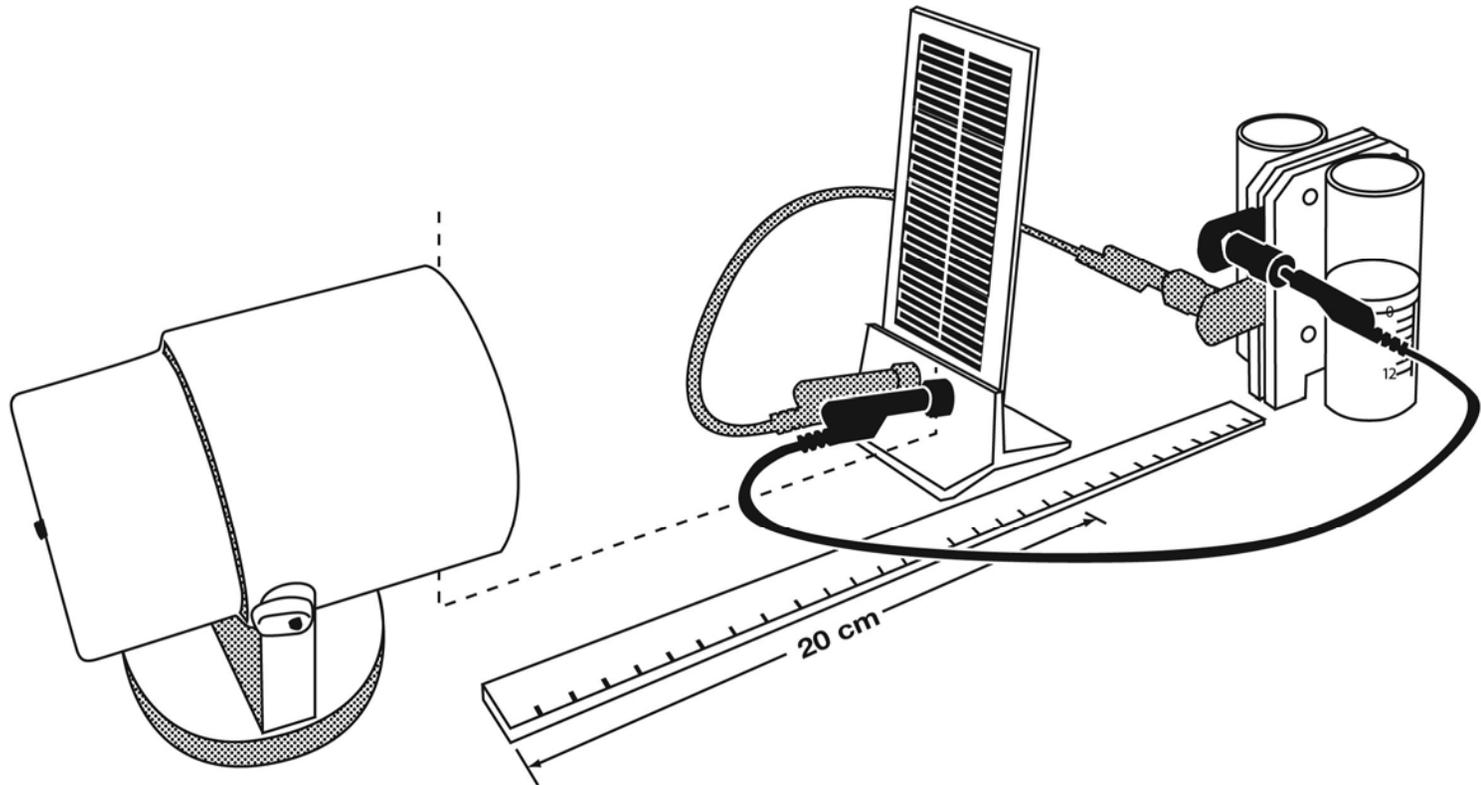
### **Important words:**

Observation

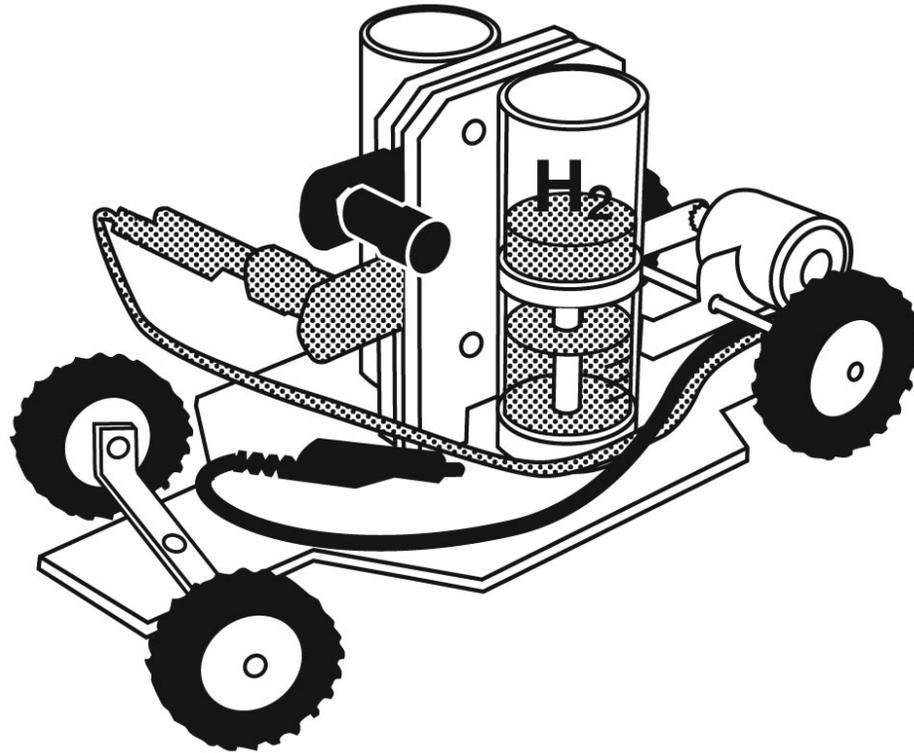
Investigation

Prediction

# Step One: Let's make some fuel!

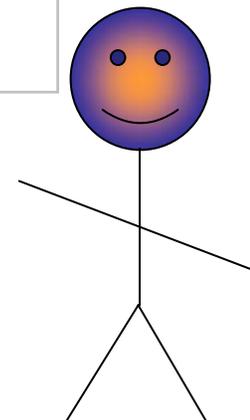


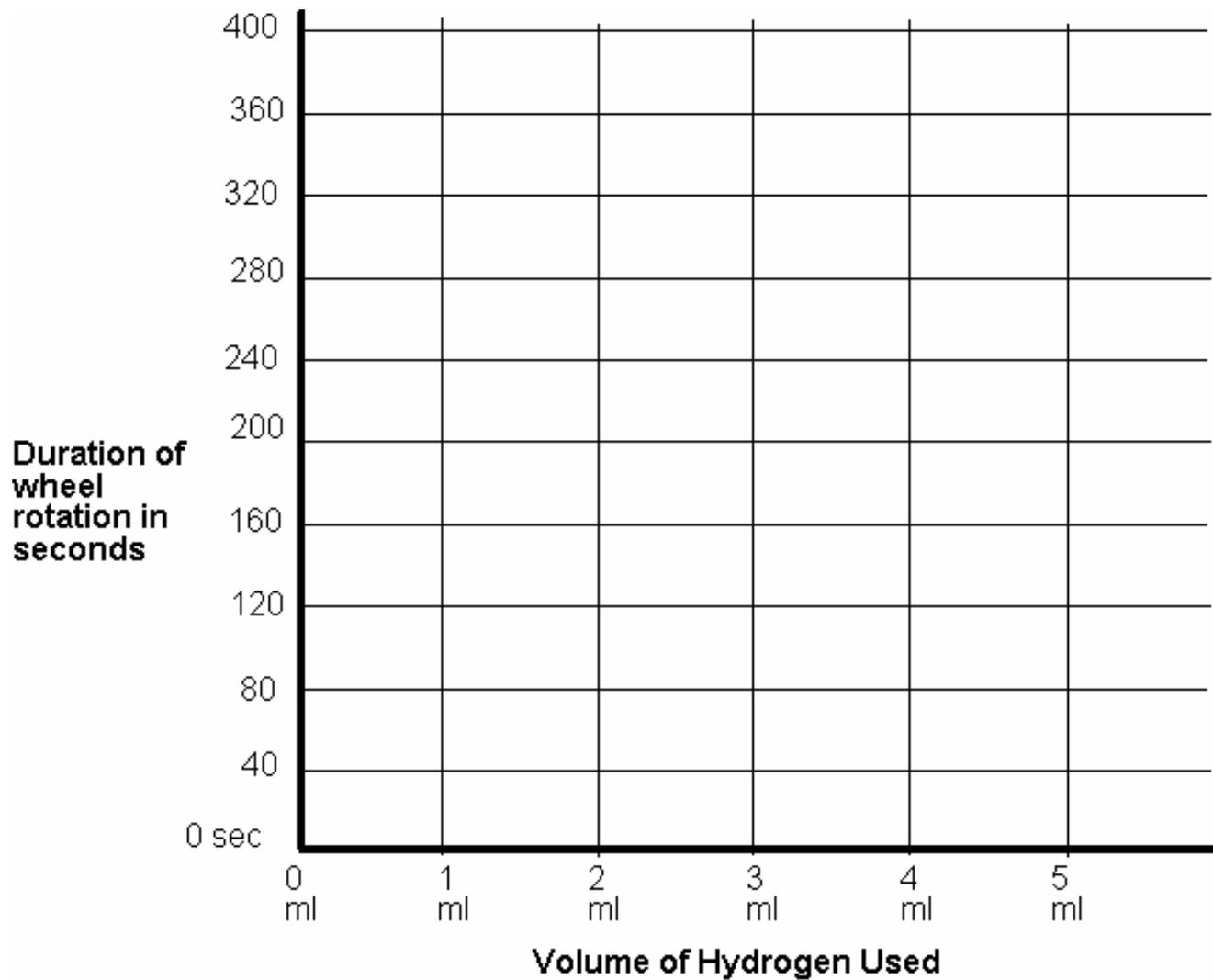
# Step two: Ready – Set – Go!



# Step three: Let's Measure

	Trial 1		Trial 2		Trial 3		
	time	elapsed seconds since 12 ml level	time	elapsed seconds Since 12 ml level	time	elapsed seconds since 12 ml level	Elapsed seconds of car travel (average of trials)
Time when 4 ml H <sub>2</sub> left							
Time when car stops, 4 ml H <sub>2</sub> used							





**Duration of Rotation per given volume of Hydrogen**

## **Some Questions:**

**Why do we have to know what the level of hydrogen is before we start?**

**What do you notice about the bubble of hydrogen and oxygen?**

**What was your guess (hypothesis) before we started the experiment?**

**How far did your car travel on 4ml of hydrogen?**



CERTIFICATE OF  
*Participation*  
PRESENTED TO

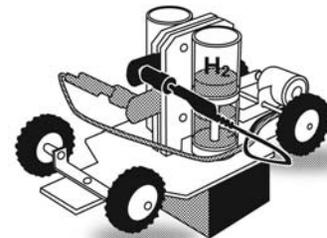
**Critical Thinking**  
Observe – Record  
Measure – Record  
Compare and Predict

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Future Fuel Cell Scientist of America

For Completing Lesson Six:  
Critical Thinking

Mentor: \_\_\_\_\_





# End of Lesson Six