



**Fuel Cell Car Workshop Outline**

What do you (or your students) know about Fuel Cells already?

**Fueling the car - An overview of basics of electrolysis**

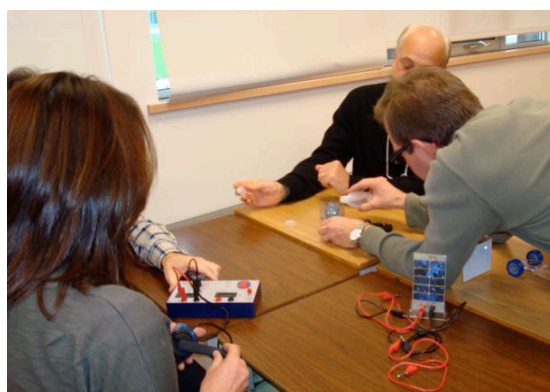


**In-class Activities:**

- Dynamos + Voltmeters
- Explore electrical current
- Charge your fuel cell (via electrolysis)

**Hydrogen Fuel Cells - How exactly do they work?**

- $2\text{H}_2 \rightarrow 4\text{H}^+ + 4\text{e}^-$  (moving electrons = current)
- Platinum is the catalyst
- Water is the bi-product =  $4\text{H}^+ + \text{O}_2 \rightarrow 2\text{H}_2\text{O}$



**Final Activity: Fuel Cell car races:**

- Have fun with this activity – start/finish line, prizes
- Ask students to explore the differences in car performance.
- Should car speed or distance travelled be the same for all cars?
- What impact does charging the fuel cell car have on its performance?

