

# **Welcome to a Fantastic Friday of Science Class!**

**Please start by turning in Wednesday's worksheet, if you didn't  
already turn it in on Wednesday.**

**Then get back to your seat and quiz a neighbor on something that  
will help them on today's quiz!**

## **Today's Agenda**

- **Discuss Worksheet (if needed)**
- **Quiz: Water Properties**
- **Discuss Lab from this week**
- **Work time?**
- **HW: Lab Analysis (on Moodle), due by 7:30am Wed**
  - Pre-Lab assignment (class webpage), due in lab next week**
  - Finish this week's lab, if needed, due Wed in class**

# $c_p$ Lab

	Trial 1
Mass of metal	10.0g
Specific heat of metal (Type of metal = <i>alum</i> )	.907
Beginning temperature of metal in calorimeter (temperature of the hot water bath)	95°C
Mass of water in calorimeter	100.0g
Beginning temperature of water in calorimeter	20°C
Max temp reached by metal and water in calorimeter	23°C

$$\#1) \Delta T_{\text{metal}} = 95 - 23 = 72^\circ\text{C}$$

$$\Delta T_{\text{water}} = 23 - 20 = 3^\circ\text{C}$$

#2)

$$Q = c_p m \Delta T$$

$$Q = (.907)(10)(72) = 653\text{J}$$

$$\#3) \frac{653}{300} = c_p \frac{(100)(3)}{300}$$

$$2.18 \frac{\text{J}}{\text{g}^\circ\text{C}} = c_p$$

## **Work Time**

**Use our remaining time to get rolling on homework...**

**Finish this week's lab, if needed, due Wed in class**

**Lab Analysis (on Moodle), due by 7:30am Wed**

**Pre-Lab (class webpage), due in lab next week**