Station 1

What is heat?

What unit do we use to measure heat?

Station 2

What is the difference between an endothermic and exothermic reaction?

Station 3

What is the equation for calculating heat energy of a reaction?

What does each variable stand for?

What sign (positive or negative) does an endothermic reaction have?

What sign does an exothermic reaction have?

Station 4

What is the value q for a 50g copper wire (C= 0.093) that has increased in temperature by 15°C?

Station 5

What is the value q for a 150g block of lead (C= 0.031) that has dropped in temperature from 50°C to 42°C?

Station 6

What is Avagadro’s Number?

How many atoms of Oxygen are there in 18g of water?

What is the mass of 1 mole of O2?

Station 7

Balance the following equation:

\_\_ Fe + \_\_\_ H2SO4 🡪 \_\_\_Fe2(SO4)3 + \_\_\_ H2

Station 8

What is the molecular weight of H3PO4?

Station 9

Balance the following equation:

\_\_\_ SnO2 + \_\_\_ H2 --> \_\_\_Sn + \_\_\_ H2O

H

F

F

F

H

H

Station 10

Calculate the enthalpy of the reaction:

H2 + F2 --> 2HF

O

S

O

O

C

O

Bond Energy = 138

O

O

Station 11

Calculate the enthalpy of the reaction:

CS2 + 2O2 🡪 CO2+2SO2

H

H

O

O

H

O

H

Station 12

Balance the equation and calculate the enthalpy of the reaction:

\_\_\_H2 + \_\_\_O2 🡪 \_\_\_H2O

Station 13

Balance the equation:

\_\_\_KOH + \_\_\_H3PO4 🡪 \_\_\_K3PO4 + \_\_\_ H2O

Station 14

What is the value q for a 200g of glass (C= 0.2) that has decreased in temperature by 4°C?

Station 15

What is the value q for a 20g of mercury (C= 0.033) that has changed temperature from 30°C to 44°C?