**How Do Organisms Obtain Energy?**

What is energy?

1st Law of Thermodynamics (Conservation of Energy):

EX)

2nd Law of Thermodynamics (Entropy):

EX)

Two types of autotrophs: 1) 2)

Major Difference between autotrophs and heterotrophs:

What is Metabolism?

The two Metabolic pathways are:

1)

2)

Photosynthesis is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Pathway

Cellular Respiration is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Pathway

What are the three Parts of ATP?

Draw ATP:

How does ATP release energy?