Name:_____

Period:_____

Title: Cellular Respiration

Standard: 8.3.2

Student Friendly Objective: *I can develop a model to show how the food (matter) organisms consume is changed through chemical reactions to form new products, release energy and support growth.*

Task 1

Every Friday after school Tony takes his dog Sansom to the park to play frisbee. Tony meets two of his friends and the three of them have a great time playing keep away from Sansom who jumps, spins and runs all over the place. When Tony got home from school he saw Sansom on the porch barely lifting his head to acknowledge him. Something was wrong. Then he remembered, Tony forgot to feed him this morning when he went off to school. Realizing what he had done Tony quickly got out the dog food and fed his poor starving dog. Sansom didn't waste any time eating. A little later both Tony and Sansom were off to the park. It took Sansom some time to get into the swing of things but he was soon chasing after the frisbee and leaping into the air to catch it.

a. Draw and label a model that shows the process that took place in order for Sansom to get energy from the food (matter) he was given.

b. Using your model as a reference explain the process that takes place as the food (matter) is cycled through Sansom.

c. What is the process called that releases energy from the food that we eat?
    i. Cellular Process

ii. Cellular Response
iii. Cellular Respiration
iv. Cellular Regenerate

d. Besides food what other type of matter is needed for this process to take place?
   i. H_2O
   ii. O_2
   iii. CO_2
   iv. $C_6H_{12}O_6$

e. What is happening to the molecules as they go through this process?
   i. They rearrange themselves into new molecules
   ii. They are lost as heat
   iii. They are destroyed as the energy is released
   iv. They are stored as energy for later use.