Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



**Procedure:**

1. Open your set of cards and make sure there are 15 cards.
2. Split the cards into 2 groups: Producers and Consumers. Write the names of the organisms in the boxes below.
3. Read through the consumer cards and decide which organisms are primary, secondary, tertiary and quaternary.

**Hint 1:** All omnivores (organisms that eat plants AND animals) will be categorized as secondary consumers)

**Hint 2:** Organisms that are not eaten by anything will be categorized as quaternary consumers.

1. Call a teacher over to check your organisms BEFORE you write them down.
2. Write down the names of the organisms in the boxes below.
3. Leave the cards in the categories. You will need them for Part II.



3. Sketch any 3 food chains that could be made from the cards. Be sure to use arrows to show energy flow.



**Procedure:**

1. Label each box of the pyramid with your categories- begin with producer at the bottom.
2. Looking back at your categories of cards, calculate the amount of energy in each level by totaling the kcal numbers given for the organisms of that level.
3. Determine the percentage of energy available from one level to the next using the following formula:

 **Total E (kcal) original level/Total E (kcal) in the next level x 100 = % E available**



\_\_\_\_\_\_\_\_\_\_\_\_\_

% E Available

\_\_\_\_\_\_\_\_\_\_\_\_\_

% E Available



\_\_\_\_\_\_\_\_\_\_\_\_\_

% E Available

\_\_\_\_\_\_\_\_\_\_\_\_\_

% % E Available