WEEK 10
Topic: Food and Nutrition
Sub-topic: Number Pyramid

Objectives: After readings and observing students will accurately:
- define a number pyramid is at least one sentence.
- Identify at least two similarities and two differences between the energy pyramid, the biomass pyramid, and the number pyramid.

Content
Number pyramid- pyramid of numbers shows the number of individual organisms involved at each trophic level in an ecosystem. The pyramids are not necessarily upright. In some ecosystems, there can be more primary consumers than producers.

An example of a number pyramid
Comparison between a number pyramid, energy pyramid, and biomass pyramid

An energy pyramid is a diagram that compares the energy used by producers, primary consumers, and other trophic levels. In other words, an energy pyramid shows how much energy is available at each trophic level. Energy is lost at each trophic level of a food chain. Because of this, a typical energy pyramid has a large base of producers. Each level above gets smaller because as energy is lost as heat, there is less energy available as food for organisms. The longer the food chain, the more energy is lost between the bottom and top links. On the other hand, the biomass pyramid is a diagram that compares the biomass of different trophic levels within an ecosystem. It shows the mass of producers that are needed to support primary consumers, the mass of primary consumers required to support secondary consumers, and so on. Meanwhile, the pyramid of numbers gives a count of the numbers of individual organisms at each trophic level in an ecosystem. This type of pyramid gives a good picture of the large numbers of producers that are required to support just a few top-level consumers. Notice that it takes a huge number of producers to support just a few mountain lions.

Diagram showing a comparison of the three types of pyramid.

Homework
Outline the importance of each type of pyramid.

References