**Calories**

All creatures need to eat something in order to survive. Fortunately, different species of animals have different things that they eat as food. No matter what a creature eats, the food must have enough calories in it to maintain life. Calories, or the energy stored in the food, provide the fuel animals, including humans, need in order to live and move about in the world. Any creature that does not consume enough food, or in other words enough calories, will starve and die.

The term calorie has a scientific meaning. Calorie is a measure of an amount of energy just like pound is a measure of weight. A calorie is officially defined as the amount of energy it takes to raise the temperature of 1 gram of water by 1 degree Celsius, which is 1.8 degrees Fahrenheit. The term “calorie” and “Calorie” with a capital C have two different meanings to scientists. The term Calorie (with a capital C) means one kilocalorie, the amount of energy required to raise the temperature of one kilogram of water by one degree Celsius. A kilogram is the same as 1,000 grams and a kilocalorie is 1,000 calories. Food calories are always measured as Calories but average people don’t care much about the difference and just use the word calories.

Food is composed of proteins, fats and carbohydrates. Nutritionists know that a gram of protein contains 4 Calories, a gram of fat has 9 Calories, and a gram of carbohydrate has 4 Calories.

All foods contain calories. When we eat something it provides energy for our bodies to use when we are active. We even need energy or calories while we are sleeping because, for example, our bodies are still breathing, our heart is pumping, and we continue to digest the food in our stomachs. If a person eats more food and more calories than is used up by activity, the body stores the excess calories in case it might need it later when food might not be available. So a person gains weight due to the extra food and calories. Similarly, if a person consumes fewer calories than are used every day over several weeks and is more active, that person will lose weight.