Made up of perhaps hundreds or thousands of sensors, wireless sensor networks may be capable of sensing tasks that are not possible with one, perhaps powerful, sensor. Although the capabilities of wireless sensor networks seem unbounded, one major factor constraining of lifetime of wireless sensor networks is the finite energy supply of each sensor. Overcoming this power constraint cannot be achieved by simply increasing the sensors power supply. Using today’s technology, increasing the power supply would result in increasing the device’s size, weight, and also the cost, where as the objective is to reduce these critical sensor characteristics. Rather than making hardware changes, we focus our attention on creating a power usage scheme that will allow the sensor to be capable of retrieving the largest amount of data possible over it’s lifetime. This scheme will thus enable the sensor to use its limited power supply in the most efficient manner and when employed by each sensor in the network, should allow us to achieve the maximum network lifetime possible. Energy efficient schemes to retrieve data in a dynamic regime so as to maximize the network lifetime will be discussed.