STUDY QUESTIONS:

What is a population? (DOK1)

How do you measure populations (DOK2)

Compare and contrast the 3 types of population densities. (DOK3)

Finish writing your study questions here...
(Remember 1 question for EACH bullet)

NOTES:

• Population: A group of organisms that belong to the same species living in the habitat at the same time.

• **GROWTH RATE** = __________________ - __________________
  - Immigration: moving _______ an area
  - Emigration: _______ an area

• **POPULATION DENSITY**: Number of individuals per unit area.
  - Clumped: __________________
  - Random: __________________
  - Uniform: __________________

• **Exponential Growth (J curve)**: population increases rapidly very quickly only after a few generations

• **Logistic Growth (S curve)**: starts as _____________ growth with limiting factors and _____________ (due to carrying capacity)

• **Carrying Capacity** is the _____________ number of individuals an environment and its resources can support

• **Limiting Factors** control the _____________ of a population
  - Available resources (food, space, mates)
  - Competition, predation, parasitism, disease
  - Natural disasters, unusual weather
  - Environmental changes (ex. drought)
  - Other species
    - Predators, prey, competitors
    - Lynx and snowshoe hare example
Human Population Explosion

- **Three Factors**
  - Fertility, Infant Mortality, Longevity
- **Animal Domestication and Agriculture**
  - Provided for a few to feed many
- **Industrial Revolution**
  - Growth of Cities and Infrastructure
    - Water, Energy, Transportation
  - Increased Productivity, Nutrition, Sanitation, Medicine

Human Influences on the Environment

- Limited Resources
  - Land, food, water
- Agriculture
- Industries
- Ecosystem Goods (Renewable, Nonrenewable)
- Desertification & Deforestation
- Water pollution
- Biological magnification
- Air pollution
- Acid rain
- Habitat Fragmentation
- Introduced Species