Endocrine System Objectives:

Define these key terms:
- regulation
- gland
- hormone
- target cells
- non-target cells
- receptor sites
- exocrine glands
- endocrine glands
- hypothalamus gland
- pituitary gland
- thyroid gland
- pancreas
- adrenal glands
- ovaries
- testes

- Explain how hormones are transported in the human body.
- Explain what is meant by a target organ.
- Identify target cells vs. nontarget cells
- Identify 2 types of target cells (tissues, glands)
- Relate the nervous & endocrine System to the analogy of a telephone and a broadcast radio.
- Compare & contrast specific characteristics of the nervous & endocrine systems.
- Recognize that the nervous and endocrine systems interact to control and coordinate the body response to changes in the environment.
- Describe the differences between exocrine & endocrine glands. Provide an example for each.
- Recognize that hormones have specific shapes that fit with receptors on the surface of the target organ or structure they are going to influence.
- Describe how a home thermostat relates to the negative feedback process.
- Draw & label the 8 locations of the endocrine glands: hypothalamus, pituitary, thyroid, parathyroid, pancreas, adrenals, ovaries, testes.
- State the target cells and chief functions for the hypothalamus, pituitary, thyroid, parathyroid, adrenals, pancreas, ovaries, & testes.
- Explain two ways the body controls the level of blood sugar in humans.
- Explain how the body controls the level of thyroxine in the blood through a negative feedback mechanism.
- Describe the function of the hormones adrenaline and cortisol produced by the adrenal glands.
- Explain how the parathyroid glands control calcium levels in the body.
- Describe the effects on the human body for the following malfunctions: diabetes, gigantism, dwarfism and goiter.
- Recognize that failure to regulate homeostasis can result in disease and/or death.