Endocrine System Worksheet

1. What is the function of the endocrine system?

   The endocrine system produces and releases hormones which are chemical messengers that affect various tissues and organs of the body.

2. What is a hormone?

   A hormone is a chemical messenger that regulates activities of tissues and organs in the body.

3. How does the negative-feedback mechanism work?

   Negative-feedback is the method used by the endocrine system to regulate the level of hormones in the blood. Certain glands can detect how much of a given hormone is present in the blood. Based on this information, either the signal to create more or stop releasing that hormone is given.

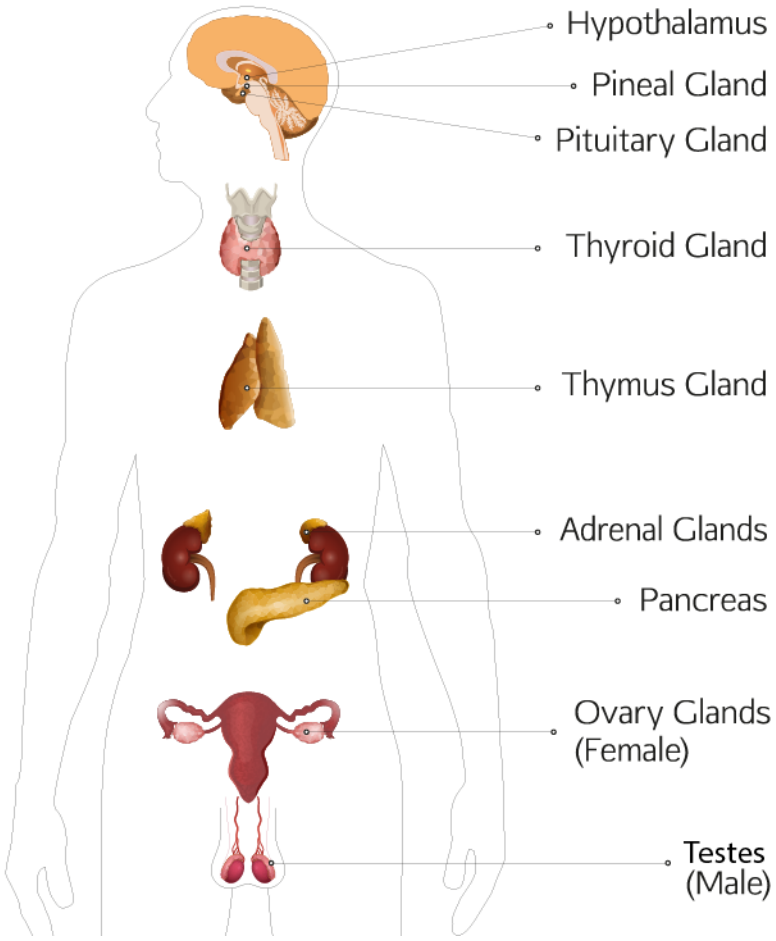
4. How do the hormones released by the endocrine glands get around the body?

   The hormones travel throughout the body by way of the circulatory system. Each hormone has certain target cells located in various tissues or organs of the body. When a target cell detects the hormone in the blood, the cell absorbs the hormone.

5. Two of the hormones secreted by the pancreas are insulin and glucagon. These hormones work together to maintain a balanced blood sugar level. How do they do that?

   Insulin is a chemical that helps cells convert sugar into energy. It decreases the sugar level in the blood. Glucagon does the opposite of insulin. It increases the blood sugar level by stimulating the conversion of stored sugar.

6. Label the following diagram of the endocrine system with the words in the box.



Adrenal glands	Pancreas	Testes
Hypothalamus	Pineal gland	Thymus
Ovary glands	Pituitary gland	Thyroid

8. Match the functions described in column B with the endocrine gland listed in column A.

Column A	Column B
Hypothalamus __*11*_	1. produces male sex characteristics
Pituitary __*10*_ , __*12*_	2. decreases blood sugar level
Thyroid __*7*__ , ___*8*_	3. increases heart and breathing rate, raises blood pressure
Thymus __*9*__	4. produces female sex characteristics
Adrenals __*3*__	5. increases blood sugar level
3 Pancreas __*2*__ , ___*5*__	6. regulates the level of calcium and phosphorus
Ovaries __*4*__	7. increases rate of metabolism
Testes __*1*__	8. maintains the level of calcium and phosphorus in the blood
Parathyroids __*6*__	9. development of immune system
	10. stimulates skeletal growth
	11. regulates the activities of other glands
	12. stimulates development of male and female sex organs