

Name: _____

Class: _____

WORKSHEET

2.1 Chemical messengers

Using Chapter 2 of *Human Perspectives Units 3 & 4 ATAR*, complete the following activities.

1 Define the term 'homeostasis'.

2 Which body systems are involved in maintaining homeostasis?

3 Why is it important to maintain homeostasis in the human body?

4 What is a steady state control system?

5 Name, in order, the components of a steady state control system.

6 In the table below, state the location of each gland, the hormones secreted by each, and their functions.

Gland	Location	Hormones	Function
Anterior pituitary gland			
Posterior pituitary gland			
Thymus			
Thyroid			
Parathyroid			
Adrenal glands			
Pancreas			
Female gonads			
Male gonads			

7 Draw flow charts to show how each of the following different types of hormones affect cells. Give an example of each type.

a Amine

b Protein

c Steroid

8 Explain, using a feedback model, what would happen in the following situations:

a increased blood glucose levels following a meal

b decreased metabolic rate due to disease

c decreased osmotic pressure of body fluids.

9 Why is the pituitary gland sometimes called the master gland? Give an example to illustrate your answer.

10 The posterior lobe of the pituitary is not a true gland. Explain this statement.

11 Draw lines to match the following hormones to their target organs or cells.

<u>Hormone</u>	<u>Target organ/cells</u>
Antidiuretic hormone	Bones and kidneys
Thyroid stimulating hormone	Kidneys
Prolactin	T lymphocytes
Parathyroid hormone	Bone marrow
Glucagon	Kidneys
Aldosterone	Ovary
Thymosins	Liver
Follicle-stimulating hormone	Thyroid gland
Erythropoietin	Most cells