Name: _____ Group: _____ Date: _____

STUDENT BOOK:	**Chapter 6, pp. 187–190**
CONCEPTS:	LYMPHATIC SYSTEM (LYMPH, ANTIBODIES)
METHOD:	MODELLING

ATTACK AND COUNTERATTACK

Several components of the immune system must work together to protect the human organism from foreign bodies. What is one practical way to represent the body's defence mechanisms against attacking invaders? By modelling those defence mechanisms based on a drawing.

IDENTIFYING THE PROCESS TO MODEL

Modelling the phenomenon studied in this activity requires a sound understanding of what happens in the body's defence system.

Read pp. 187–190 in your student book for help in answering the following questions.

1. What invaders may attack the human body?

_____

_____

_____

_____

2. What cells have the role of defending the organism against invaders?

_____

3. Name three body fluids containing white blood cells.

- _____
- _____
- _____

4. In what areas of the organism are these cells highly concentrated?

_____

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5. Name the process by which white blood cells pass through the capillary membrane. Explain this phenomenon in your own words.

6. What are the two ways in which white blood cells act? Provide a brief explanation.

-
-

7. What is an antibody?

8. What is an antigen?

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PLANNING A MODEL

9. Imagine a drawing that could represent the body's defence mechanisms—the defence of a fortified castle or a spaceship attack by extraterrestrials, for example.

Describe the drawing you will model, then complete the table below by identifying the invaders and the defenders. Explain how you will represent them.

Type of drawing: _____

Invader	Representation

Defender	Representation

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DESIGNING THE MODEL

10. Make your drawing.

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VALIDATING THE MODEL

11. Does your drawing improve your understanding of the body's defence mechanisms? How?

12. How could you improve your model?

13. Besides a drawing, how else could you model the body's defence mechanisms?