

CHAPTER 8	Immune Response Non-specific Answer Key	BLM 8.3.3A
ANSWER KEY		

1. The term “non-specific immune response” refers to immune responses to any pathogens that enter the body. In these cases, the body will manufacture lymphocytes, macrophages, and natural killer cells that can find and destroy many different types of pathogens, such as bacteria, viruses, or cancer.

2. a)

Skin	Structures involved	Function
Chemical	oil produced by the skin contains bactericides perspiration is acidic	<ul style="list-style-type: none"> • makes it inhospitable for microbes to grow
Physical	outer layer made up of a protein called keratin	<ul style="list-style-type: none"> • waterproof and indigestible

b)

Barrier	Chemical or Physical	How it works
Eyelashes	physical	<ul style="list-style-type: none"> • trigger reflex blinking • may catch airborne particles
Tears	chemical	<ul style="list-style-type: none"> • contain antibodies and lysozyme (antibacterial enzyme)
Cilia of the respiratory tract	physical	<ul style="list-style-type: none"> • cilia sweep dust, bacteria, and other airborne particles towards the mouth, preventing them from entering lower respiratory tract
Stomach acid	chemical	<ul style="list-style-type: none"> • kills pathogens

3. a) Macrophages, neutrophils and monocytes are types of white blood cells that are involved in the second line of defence.
- b) These white blood cells destroy pathogens by a process called phagocytosis. White blood cells extend their cell membranes, engulf the foreign substance, and bring it into the white blood cell. The foreign substance is then digested by the white blood cell.