

INTERFERONS

Video Worksheet

Task 1. Match the terms (1–9) with their definitions (a–i). Write the correct letter in the box.

Term	Answer	Definition
1. proximity		A. to break open or burst, referring to a cell.
2. to mount a defense		B. acting to prevent, inhibit, or destroy a virus.
3. to engulf		C. the process by which a virus makes copies of itself.
4. to lyse		D. to swallow or consume another cell or particle completely.
5. Natural Killer cell		E. a large white blood cell that “eats” pathogens and cellular debris.
6. macrophage		F. to prepare and begin a protective action against an attack.
7. innate		G. a type of leukocyte that destroys infected body cells and cancer cells.
8. antiviral		H. the state of being near or close to something.
9. viral replication		I. part of the immune system that is non-specific and present from birth.

Viewing

Task 2. Watch the video “Interferons” and check your answers in Task 1.

Video: <https://www.youtube.com/watch?v=X2-LZ6LeqxA>

Post-viewing

Task 3. Read the statements. Circle TRUE or FALSE based on the video.

No	Statement	TRUE	FALSE
1	Interferons are a key component of the specific (adaptive) immune system.	TRUE	FALSE
2	An infected cell produces interferons to save itself from the virus.	TRUE	FALSE
3	Interferons make healthy cells produce antiviral proteins to block viral replication.	TRUE	FALSE
4	Natural Killer cells and macrophages ignore interferons.	TRUE	FALSE
5	Interferons can trigger cell death in a heavily infected cell.	TRUE	FALSE
6	Interferons bind to receptors on nearby healthy cells to prepare them for a viral attack.	TRUE	FALSE
7	Macrophages cannot be guided by interferons to the site of infection.	TRUE	FALSE

Task 4. The interferon response follows a logical sequence. Number the events in the correct order (1–6).

Order	Event
	Healthy neighboring cells produce antiviral proteins.
	The infected cell is destroyed by an immune cell or by programmed cell death.
	A virus injects its genetic material into a host cell.
	The infected cell produces and releases interferons.
	Interferons bind to receptors on nearby healthy cells and immune cells.
	Interferons guide Natural Killer cells and macrophages to the site of infection.

Task 5. Join the heads and tails to make correct sentences from the video. Write the correct letter (A–F) in the box.

HEADS

Sentence beginning	Answer
1. So, the infected cell begins to produce these interferons...	
2. These nearby healthy cells have already mounted a defence...	
3. Once the interferon interacts with the natural killer cell, ...	
4. So, what these interferons do is they ultimately bind...	
5. This is the method by which the innate, the nonspecific immune system of our body...	
6. The interferons can also find these macrophages and they can guide the macrophages to the infected cell and these macrophages can ultimately engulf...	

TAILS

No	Sentence ending
A	onto the membrane of these healthy blue cells and they prepare those cells for that viral infection.
B	deals with viruses and other intracellular parasites that actually infect our cells.
C	and the cell releases these interferons to the surrounding environment.
D	and degrade those infected cells.
E	it essentially guides that killer cell to this infected cell.
F	and are ready for that viral attack.