

Viruses and Living Things

9th Grade

Why virology sits awkwardly between chemistry and biology.

LIVING CELL

- Made of cells
- Uses energy and respire
- Grows and develops
- Reproduces by itself
- Responds to its environment

VIRUS

- Not a cell — protein coat plus genetic material
- No metabolism of its own
- Does not grow
- Can only replicate inside a host cell
- No response to stimuli

THE DIFFERENCE THAT MATTERS

A virus has genes and evolves, but cannot do anything at all without hijacking a living cell. Most biologists do not classify it as alive.

Antibiotics target bacterial cell processes. Viruses have none, which is why antibiotics do nothing against them.