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Class 8F0

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WHEELS
Washington Heights Expeditionary Learning School

Viruses and Cells, What are They?

CONTENT: I can describe and explain the structures and functions of the human body at different organizational levels.

ME	MA	MT	MP	MB
☐ I can make connections to other readings in science ☐ _____ ☐ _____ ☐ _____ ☐ I can correctly use 8 or more vocabulary words ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____	☐ I can explain why the examples are important ☐ I can correctly use 7 vocabulary words ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____	☐ I can compare viruses and cells according to each paragraph prompt ☒ Size ☒ Components ☒ Visualization ☒ Genome ☒ Central Dogma ☐ Living or not ☐ I can provide specific examples ☐ Size ☐ Components ☐ Visualization ☐ Genome ☐ Central Dogma ☐ Living or not ☐ I can correctly use 5 vocabulary words ☐ <u>organelles</u> ☐ <u>Central Dogma Theory</u> ☐ <u>DNA</u> ☐ <u>RNA</u> ☐ <u>7 Characteristics of Life</u> ☐ _____	☐ I can compare and contrast viruses and cells (some, but not all yet) ☐ Size ☐ Components ☐ Visualization ☐ Genome ☐ Central Dogma ☐ Living or not ☐ I attempt to use 3 vocabulary words ☐ _____ ☐ _____ ☐ _____	☐ No clear comparison between viruses or cells ☐ Less than half of the product is finished.

I like how you used the ruler to show differences in size.
Harold, I think you definitely have a future as a writer.
Your cartoon made me laugh out loud in a few places.
For an MA, I'd like to know more about organelles and how they function together. I needed you to go deeper.
Your presentation is super creative and interesting.

Vocabulary Words		
organic hypothesis evidence function characteristic biotic abiotic prokaryotic cell eukaryotic cell cells organelle organism unicellular multicellular	atom ionic bond covalent bond molecule nucleus chemical reaction catalyst activation energy reactant product substrate active site enzyme	biomolecule macromolecule monomer polymer carbohydrate protein lipid phospholipid nucleic acid vacuole vesicle genome gene endocytosis exocytosis

Must Have:

- ☐ Compare viruses and cells according to each paragraph prompt
- ☐ Provide specific examples
- ☐ Correctly use 5 vocabulary words above

Amazing:

- ☐ Make connections to other readings in science
- ☐ Explain why the examples are important
- ☐ Correctly use 8 or more vocabulary words above

Name Harold
Class 8th
Date 1/19/23



Viruses and Cells, What are They?

LT: I can write an MPO to compare viruses and cells.

Prompt: You are sharing your knowledge and expertise about viruses and cells to community members.

BODY PARAGRAPH 1: Compare Virus and Cell (Size and Components)

T.S (Topic Sentence): viruses and cells have ~~similarities~~ similarities and differences. Like their size and components.

Compare the sizes of viruses and cells.

1. Viruses are smaller than 100nm and you need an electron microscope to see it. The range of a cell size is from 10µm to 100µm.

Compare the components of viruses and cells.

2. virus: capsid = proteins → cover the core, core = genetic material nucleic acids. cell: are made of organelles that work together to keep the cell alive.

Compare how viruses and cells are visualized

3. virus: only with an electron microscope. cell: ~~with~~ with light and electron microscope.

C.S (Closing Sentence): These aren't the only similarities and differences viruses and cells have. There are more.



BODY PARAGRAPH 2 Compare Virus and Cell (Genome, Relationship to Central Dogma, Are they living?)

T.S (Topic Sentence): There are a lot of differences
that viruses and cells have like
their genome, relationship to central
dogma, or if they are ~~living~~ living or not.

Compare the
genomes of
viruses and
cells

1. Virus: SS DNA, ds DNA, RNA, ds RNA
~~cell: ds DNA~~

Compare
how viruses
and cells
follow/don't
follow the
Central
Dogma of
Biology

2. Virus: no, exp
cell: yes, exp

Which is
living or
non-living?
How do you
know?

3. Virus: no since don't follow 7 charac
teristics of life.
cell: yes since they follow the 7 charac
teristics of life, exp

C.S (Closing Sentence): These examples show how
different ~~a~~ a virus and a cell
can be.