LS11 **Virus Worksheet 1**

1. What is the definition of a virus?
2. There is some debate about whether viruses are living or not. Name some characteristics of living things that viruses exhibit.
3. Circle the letter of each reason why some biologists do not consider viruses to be alive:
4. They can’t infect living cells
5. They can’t evolve
6. They can’t regulate gene expression
7. They can’t reproduce independently
8. Do all viruses cause disease? What is the name given for this?
9. True or False: Most viruses are so small that they can be seen only with the aid of a powerful electron microscope.
10. Convert 200 nm to mm. \_\_\_\_\_\_\_\_\_\_\_mm. Convert 40 um to \_\_\_\_\_\_\_\_\_nm
11. Draw and label the general structure of a typical virus:
12. ![Solved] Which letter/s indicates a Naked Helical Virus shape? (To select...  | Course Hero]()Name these basic viral shapes:

A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

B \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

C \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

D \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Definitions:

1. Bacteriophage -
2. Prion -
3. Viroid -
4. Retrovirus -
5. Specificity -
6. Briefly describe the three theories of how viruses came to be.
7. Label the following parts a typical bacteriophage: Head, Tail, Capsid, Genetic Material, Tail Fibers.



1. . Complete the chart below comparing viruses and cells.

|  |  |  |
| --- | --- | --- |
| Characteristic | Virus | Cells |
| Structure | DNA or RNA core, capsid | Cell membrane, cytoplasm. Eukaryotes also contain nucleus and organelles |
| Reproduction |  | Independent cell division either asexually or sexually |
| Genetic Material |  | DNA |
| Growth and Development | No |  |
| Obtain and use Energy |  | Yes |
| Response to environment |  | Yes |
| Change over time |  |  |