

Directions: Cut out the virus parts below and glue them onto the INB sheet to the right. Cut out the INB sheet and glue it over the second INB sheet and glue into your notebook. On the second INB sheet, describe or define what the identified part does for the virus.

Base Plate

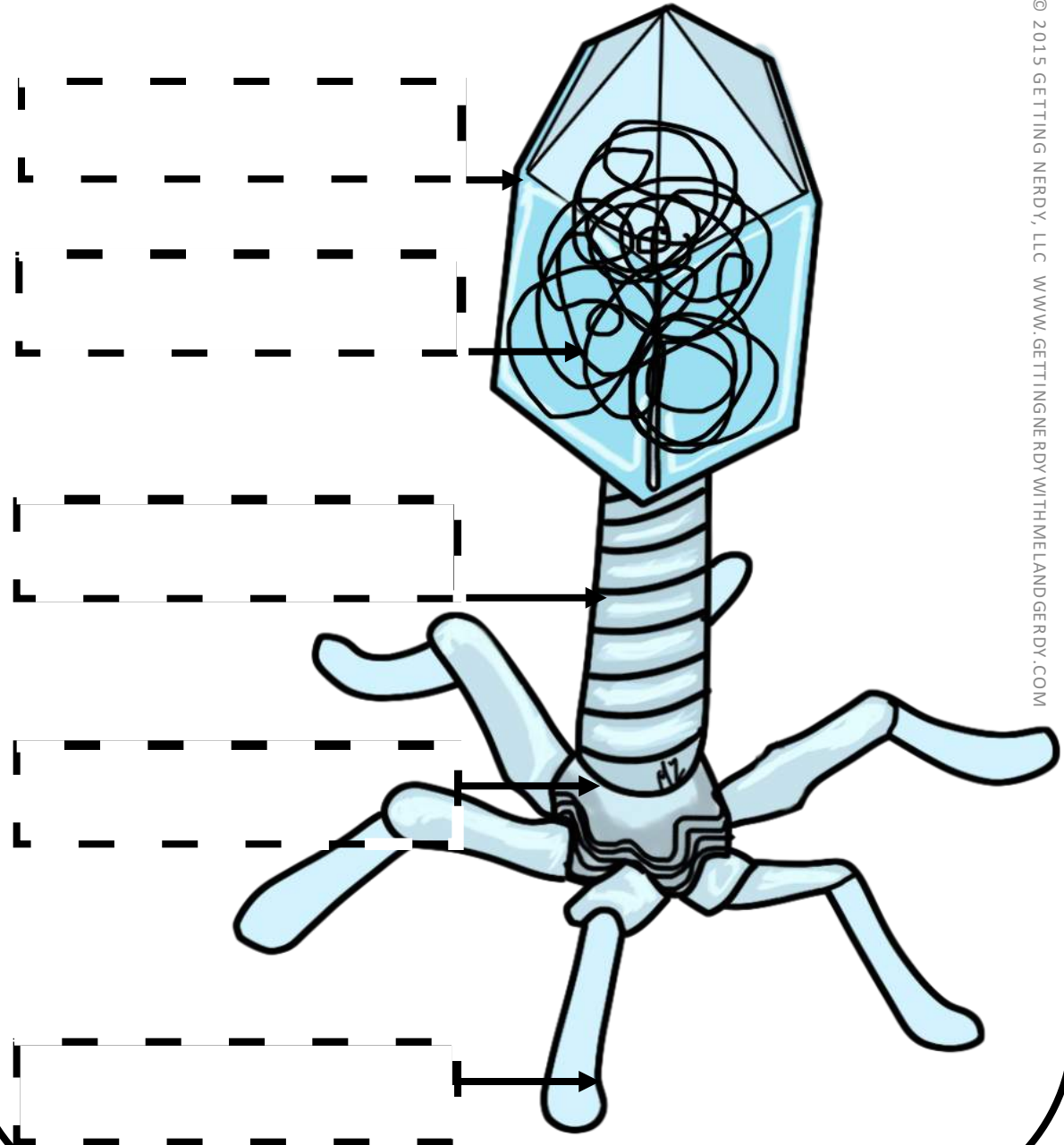
Genetic Material

Tail Fiber

Tail Sheath

Capsid

Parts of a Virus



Directions: After completing the INB sheet on the previous page, cut out the sheet to the right and glue it into your notebook. Write a short description of the function of each virus part next to the name. Then, glue the "Parts of a Virus" sheet along the top tab of the sheet already in your INB.

Glue Parts of a Virus Here

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Why are viruses not considered living? _____

Capsid: _____

Genetic Material: _____

Tail sheath: _____

Base plate: _____

Tail fiber: _____

Virus Dichotomous Key

Use the dichotomous key below to identify the unknown viruses in the squares. Cut them out and place them in the appropriate location on the INB dichotomous key sheet.

1. a. Virus is somewhat regular in shape go to **2**
 b. Virus is geometric in shape go to **3**
2. a. Virus is spherical, surrounded by a membrane envelope **ENVELOPE**
 b. Virus is a hollow tube filled with amino acids **HELICAL**
3. a. Virus is made of triangles fused together in a sphere **ICOSAHEDRAL**
 b. Virus is icosahedral with a tail, infects bacteria **BACTERIOPHAGE**

Envelope

Helical

Icosahedral

Bacteriophage



Virus Life Cycle

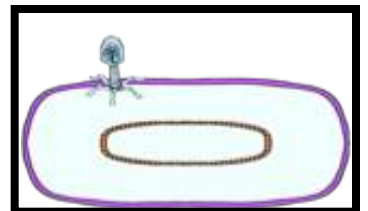
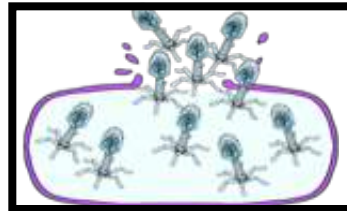
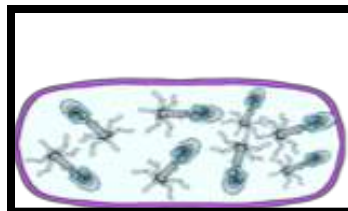
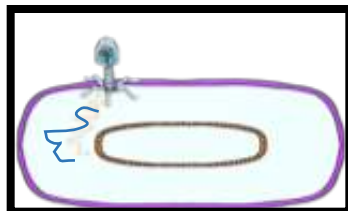
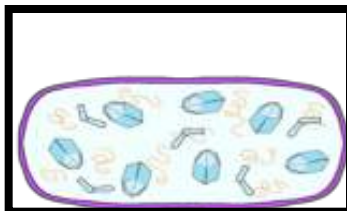
1	2	3	4	5

Describe the virus life cycle:

1. _____
2. _____
3. _____
4. _____
5. _____

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Directions: Cut out the page above and glue into your INB. Cut out the steps of the virus life cycle below and glue them in order in the boxes labeled **1-5**. Then, describe what is occurring in each picture.



Directions: Cut out the bacteria cell organelle parts below and glue them onto the INB sheet to the right. Cut out the INB sheet.

Inclusion or
Storage Granule

DNA or
Chromosome

Plasma or Cytoplasmic
Membrane

Ribosome

Cytoplasm

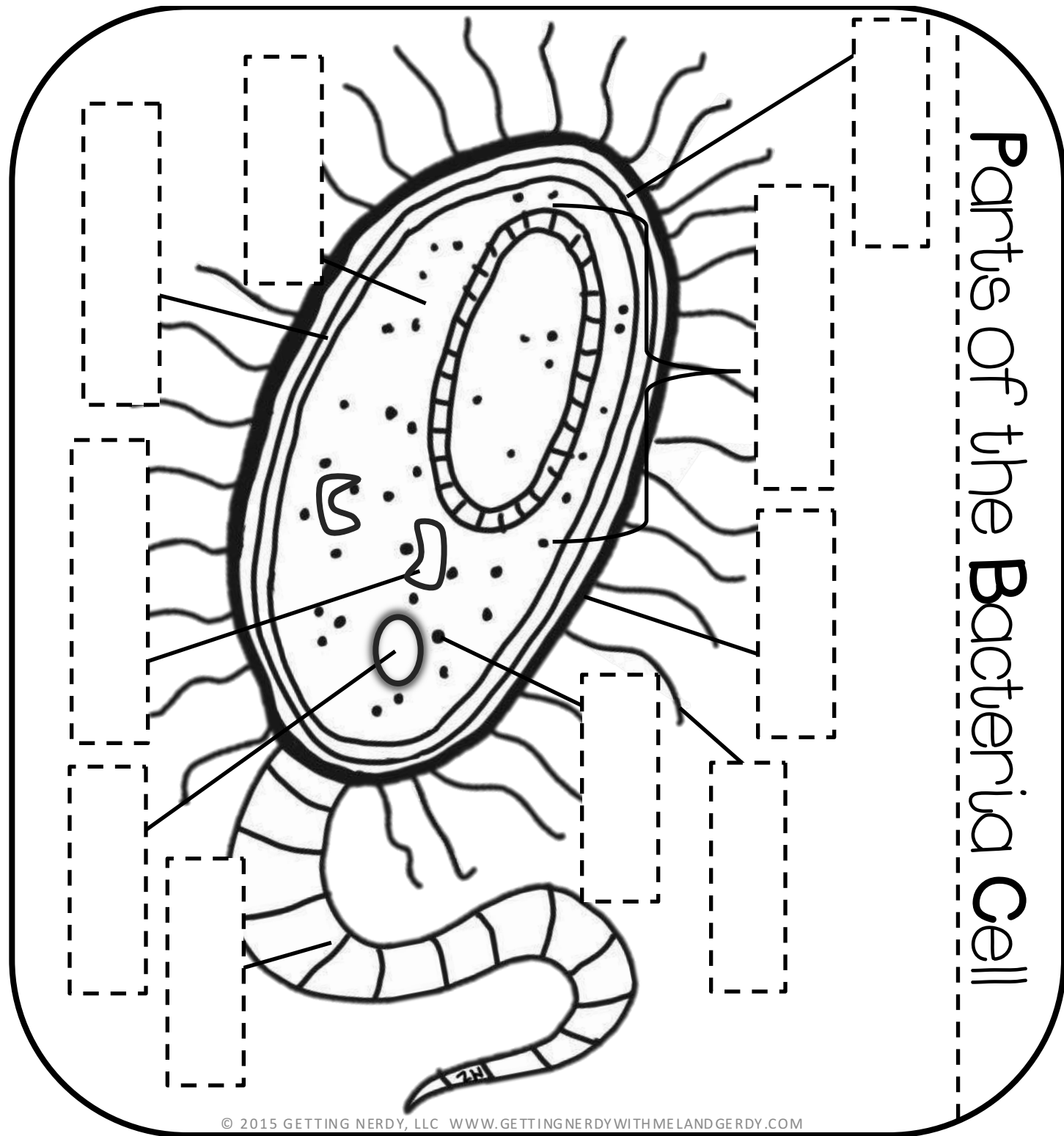
Pili

Plasmid

Cell Wall

Flagella

Capsule



Glue Parts Of the Bacteria Cell Here

Function of Bacteria Cell Parts

Capsule:

Plasmid:

Cell Wall:

Ribosome:

Plasma / Cytoplasmic Membrane:

Inclusion/Storage Granule:

Cytoplasm:

Flagella:

DNA/Chromosome:

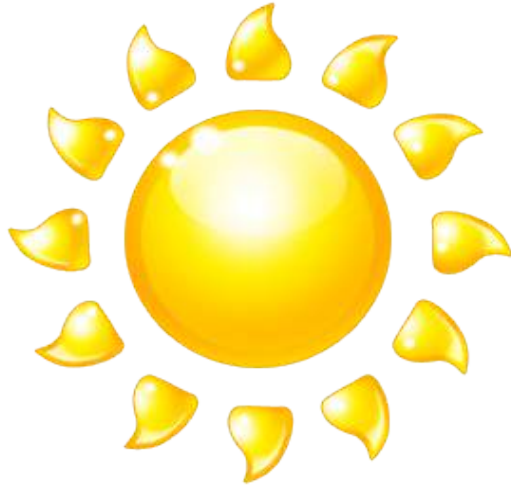
Pili:

Cell Envelope

Directions: After completing the INB sheet on the previous page, cut out the functions of bacteria cell parts sheet to the right and glue it into your notebook. Next, glue the parts of the bacteria cell sheet along the top tab of the sheet already in your INB.

How Do Bacteria Get Energy?

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Photosynthesis



Chemosynthesis

ATP

Cellular
Respiration

How Do Bacteria Get Energy? Here

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Photosynthetic bacteria may contain one of two _____ that turn sunlight into sugars for food. _____ is a green pigment found in cyanobacteria which uses water and sunlight to create sugars/carbohydrates and _____ as a byproduct.

Bacteriochlorophyll absorbs light of a longer _____ when compared to chlorophyll. It does not require _____ and as a result, _____ is not created as a byproduct.

Chemosynthetic bacteria use inorganic _____ reactions to create carbohydrates and sugars as food. They are often found in _____ environments like hot springs, hydrothermal vents, cold seeps, or salty water because they are rich with _____ that enable chemosynthesis. They create energy from molecules like sulfides, ammonia, and _____ and often this process takes place in areas that lack _____.

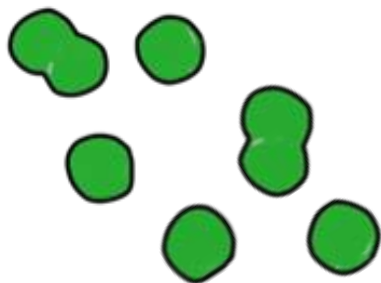
Respiration is the process of releasing _____ from food. There are two ways of doing so: _____ respiration occurs in the _____ of oxygen and converts sugar into ATP energy within the cytoplasm and cell membrane since bacteria lack _____.

_____ respiration occurs in the _____ of oxygen. An example of this process is _____. It produces ATP energy in small amounts as well as byproducts like methane gas, _____, and lactic acid.

The Main Shapes Of Bacteria

Glue
down
here

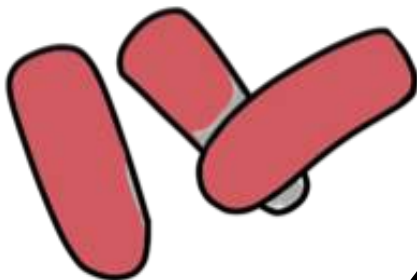
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Glue
down
here

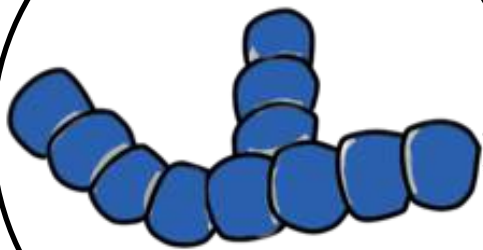
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Glue
down
here

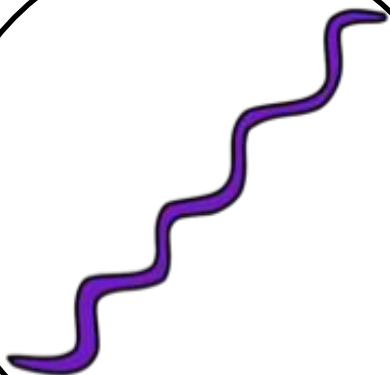
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Directions: Cut out and glue the title piece and diagrams and glue the "glue down here" side of the circle into your notebook while folding along the dotted line and leaving the upper flap free. Describe each of the four shapes of bacteria.