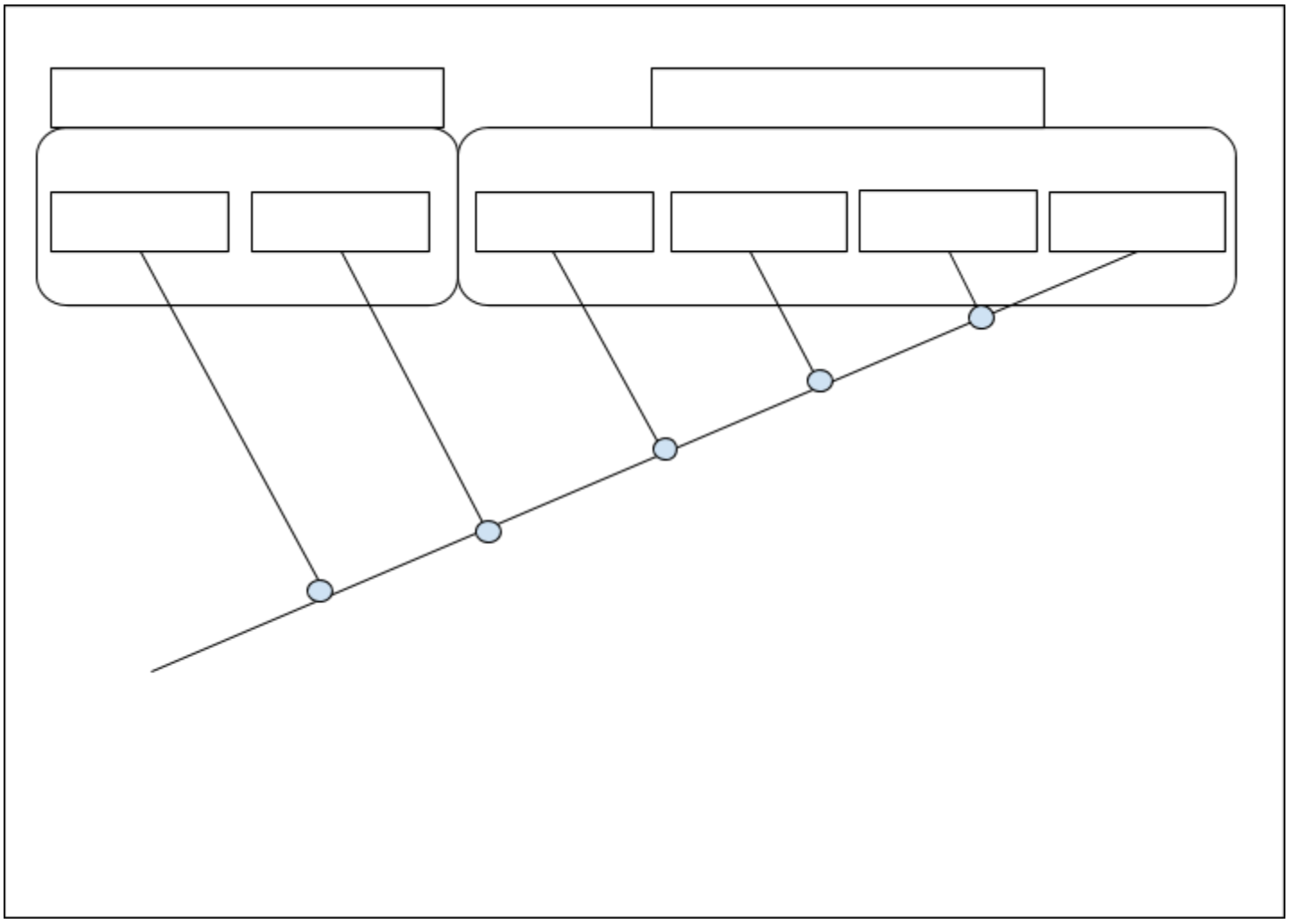
Name: _____ Block: _____ Date:_____

Cell Notes

Unicellular:
Multicellular:

Phylogenetic Tree



Term	Definition	Examples
Prokaryote		
Eukaryote		

What phrase can you use to remember the difference between prokaryotes and eukaryotes?

Prokaryote and Eukaryote Investigation

You will observe 5 different cells under the microscope and determine whether they are a prokaryote or eukaryote.

Use the following checklist to determine whether the specimen you are observing is a prokaryotic or eukaryotic cell:

- ❏ Does the cell have a nucleus?
- ❏ Does the cell have smaller organelles inside of it?
- ❏ Size of the cell: what magnification do you need in order to view it?

Record your observations in the data table below:

Station Number	Nucleus?	Organelles?	Magnification?	Prokaryote or Eukaryote?
1				
2				
3				
4				
5				

Make a poster to communicate your findings at your *last station*.
Your poster must include:

- A drawing of what you see
- Your claim: Is it a prokaryote or eukaryote?
- 2 pieces of evidence that you can use to back up your claim.

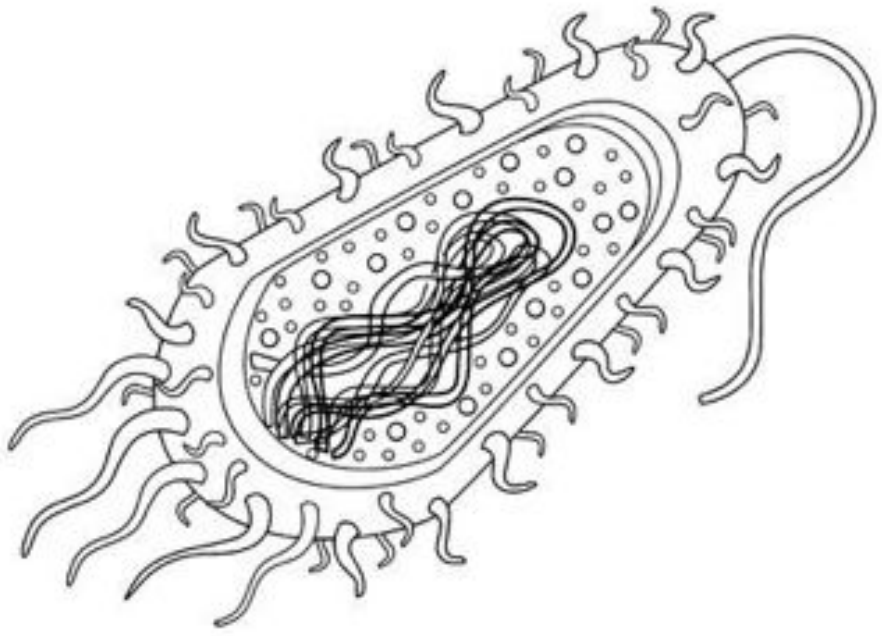
Name: _____ Block: _____ Date:_____

Cell Structure Notes

Snapshot:

- Draw a phylogenetic tree using your notes from last class.
- Label the 6 kingdoms on the tree
- Circle the prokaryotes
- Draw a box around the eukaryotes
- Where do eukaryotes split off from prokaryotes? Label this spot by drawing an arrow to it
- Where do you think animals and fungi split off from plants? Label this spot with an “X”

Typical Prokaryotic Cell *Label each structure and include a brief description*



What are some of the main similarities and differences between plants and animals?

Use your notes to fill out the following chart with *at least 8* similarities between plant and animal cells, *at least 5* things that are unique to plant cells and *at least 5* things that are unique to animal cells.

Similarities	
Unique to Animals	Unique to Plants

Plants and Animals Investigation

You will observe 4 different cells under the microscope and determine whether they are plant cells or animal cells.

Work with your partner to develop a checklist that can be used to tell whether you are looking at a plant or animal cell. Your checklist must include at least 3 criteria.

Checklist:

- ❏
- ❏
- ❏

Use your checklist to create a data table where you can record observations. Look back to your prokaryote v. eukaryote investigation for an idea of what this table should look like.

Specimen Number				