DO NOT WRITE ON THIS HANDOUT

CELL THEORY HISTORIC TIMELINE ACTIVITY

Objectives:

In this activity you will:

- Be able to use reference sources to obtain information.
- Research historical events leading to the development of the cell theory.
- Develop historical knowledge of science and the developments of technology in science.
- Report on your findings by constructing a timeline showing the chronology of the historical events leading to the development of the cell theory.

Materials *for each student or pair/group of students*:

- One computer for Internet search
- One sheet construction paper
- Colored pencils, markers, or crayons

Student Procedures:

- Research the following people and list some of their contributions to science *in regards to cells*. Write this information in your composition notebook. Please include dates of these contributions.
 - o Robert Hooke-
 - Hans and Zacharias Janssen-
 - Anton van Leeuwenhoek-
 - o Matthias Schleiden-
 - Theodor Schwann-
 - Rudolph Virchow-
- After researching, create a timeline showing the chronological order of these scientists and their contributions.
- Label the timeline with dates of the above scientists' discoveries.
- The earliest date should be on the left of the timeline and the most recent date on the right.
- Label each date with the corresponding scientist's name and contribution(s) in an *organized and legible* manner.
- Be sure your spacing shows a reasonable approximation of the amount of time elapsed between dates.

Questions – answer the four questions below on the <u>BACK</u> of your groups' timeline as well as in your composition notebook. (The only thing you will turn in is your groups' timeline with the answers to the question below on the back)

- 1. What theory did these scientists provide evidence for?
- 2. What instrument was necessary before the cell theory could be developed?
- 3. Which *three* scientists *directly* contributed evidence for the cell theory?
- 4. How did the earlier scientists and their contributions directly affect the discoveries/developments of later scientists (see #2)? For example, what had to come first?

Cell Theory Timeline Activity

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Cell Theory Historic Timeline Project Rubric

Student Names:_____

| CATEGORY | 4 | 3 | 2 | 1 |
|---------------|---|---|--|--|
| Title | The timeline has a creative title that accurately describes the material and is easy to locate. | The timeline has an effective title that accurately describes the material and is easy to locate. | The timeline has a title that is easy to locate. | The title is missing or difficult to locate. |
| Dates | An accurate, complete date has been included for each event. | An accurate, complete date has been included for almost every event. | An accurate date has been included for almost every event. | Dates are inaccurate and/or missing for several events. |
| Content/Facts | Facts were accurate for all events reported on the timeline. | Facts were accurate for almost all events reported on the timeline. | Facts were accurate for most (~75%) of the events reported on the timeline. | Facts were often inaccurate for events reported on the timeline. |
| Readability | The overall appearance of the timeline is pleasing and easy to read. | The overall appearance of the timeline is somewhat pleasing and easy to read. | The timeline is relatively readable. | The timeline is difficult to read. |
| Resources | The timeline contained at least 8-10 events related to the topic being studied. | The timeline contained at least 6-7 events related to the topic being studied. | The timeline contained at least 5 events related to the topic being studied. | The timeline contained fewer than 5 events. |

TOTAL ____/20

Cell Theory Timeline Activity 2