Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Pd: \_\_\_ Ast: \_\_\_\_\_

**Scientific Knowledge Notes**

**(P.S. Hon.)**

1. What happens to scientific knowledge as our understanding of scientific topics evolves?
2. What are scientific explanations based on?
3. SCIENTIFIC KNOWLEDGE results from…
4. What does it mean to say that scientific knowledge is “TENTATIVE”?
5. Why is it important that we understand that science cannot “prove” an explanation?
6. What *CAN* science do to show confidence in an explanation or theory?
7. Under what circumstances will a scientific theory become a scientific law?
8. Compare scientific theories and scientific laws.

|  |  |  |
| --- | --- | --- |
|  | LAW | THEORY |
| What it does: |  |  |
| It will tell you: |  |  |
| Example (*Gravity*): |  |  |

1. Scientists often use models to build or communicate scientific knowledge. What is a MODEL?
2. Identify some benefits and limitations of using models in science.

|  |  |
| --- | --- |
| Benefits of Using Models | Limitations of Models |
|  |  |

**CHARACTERISTICS OF SCIENCE**

1. What is SCIENCE?
2. What are the characteristics of science?
3. How is science like a tool, such as a screwdriver or a hammer?
4. Describe the limits of science in the table below:

|  |  |
| --- | --- |
| Science CANNOT | Science CAN |
|  |  |
|  |  |
|  |  |

1. What is “PSEUDOSCIENCE”?