

Name: _____ Period: _____

Title: The Nature of Science and the Theory of Evolution

Materials: book, butcher paper, markers

Purpose: To understand what a theory is, how the theory of Evolution developed, and how this development follows the pattern of scientific development.

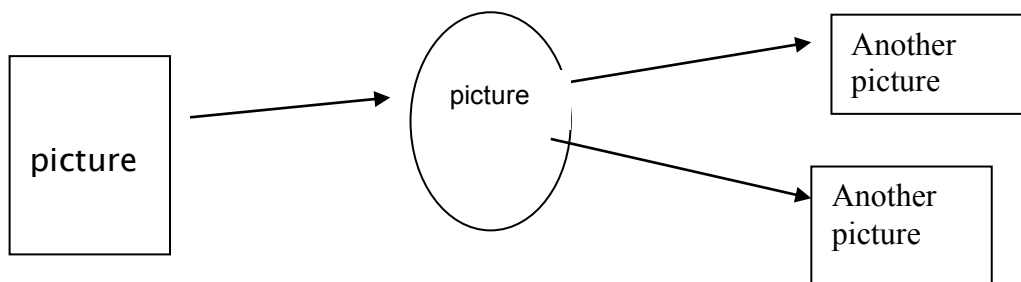
Background: Science distinguishes itself from other ways of knowing and from other bodies of knowledge through the use of empirical standards, logical arguments, and skepticism, as science strives for explanations of the world. Scientists develop theories to explain a large range of observations. Theories are tested by many independent scientists and allow a scientist to make accurate predictions about new situations. The theory of Evolution has been developed over time and new knowledge has often been based on technological breakthroughs.

What are the main ideas stated in the Theory of Evolution?

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Procedures:

1. Read pages _____ in your book, describing what Science is.
2. Three examples of main ideas have been given for you in Table 1. In the remaining cells of Table 1, summarize **in your own words** 7 other main ideas you found in these pages.
3. Now read pages _____ in your book, which explains Evolution and how the theory developed.
4. Using the timeline and information you just read, correlate something related to the theory of Evolution with the main ideas you found in the previous reading discussing the nature of science.
5. Finally, in partners create a poster (using butcher paper), which **visually** represents the information in Table 2. Try not to use any words. Make sure that your poster is neat, creative, colorful and accurate.



Research Tables:

Table 1: Descriptions of how Science Works	
1.	Science uses experimentation and observation to understand the natural world
2.	Science is reproducible, because nature usually behaves in a predictable manner
3.	As technology advances scientists are able to obtain new, and more accurate evidence
4.	
5.	
6.	
7.	
8.	
9.	
10.	

Table 2: The Application of Science at Work	
Principle of Science	Applications to Evolutionary Theory
Science uses experimentation and observation to understand the natural world	Darwin made observations on board the <i>HMS Beagle</i> , concerning natural selection
Science is reproducible, because nature usually behaves in a predictable manner	Darwin and Wallace came up with the idea of natural selection at the same time, independently of one another, similar patterns of evolution are seen throughout the natural world
As technology advances scientists are able to obtain new, and more accurate evidence	

Conclusions: Please explain, in complete sentences, 4 major concepts that you learned.