AP PHYSICS

Name: _____

Period: _____ Date: _____

DEVIL PHYSICS

BADDEST CLASS ON CAMPUS

GIANCOLI READING ACTIVITY

Section(s) 1-1 to 1-4

1. Learning Objective(s):
   a. Content Connection: This essential knowledge does not produce a specific learning objective but serves as a foundation for other learning objectives in the course.
2. Read section(s) 1-1 to 1-4 in your textbook.
3. Write a definition for each of the terms listed below:

Terms:	**Definitions:**
model	
theory	
law	
principle	
estimated uncertainty	
percent uncertainty	
assumed uncertainty	
significant figures	
powers of 10 / exponential notation / scientific notation	

4. Answer the following questions:
   a. What is physics? _____

   _____

   b. State the seven divisions of classical physics. _____

   _____

   _____

c. State the six divisions of modern physics. _____

_____

_____

d. State what Giancoli says "Science is _____"

_____

_____

e. Complete the following sentence, "Theories are never derived directly from observations. They are

_____

_____."

f. Do theories change? Why (which implies that yes, they do)?

_____

_____

g. State three career fields, other than physicist, and describe how they might use physics in their work.

i. _____

ii. _____

iii. _____

h. What is the difference between scientific laws and political laws?

_____

_____

i. Complete the following and then highlight and double-underline: "As a general rule, ***the final result of a multiplication or division*** should have only as many digits as,

_____

_____

j. You are using a centimeter ruler to measure the length of a book. The smallest increment on the ruler is one millimeter. The end of the book falls at about 2/3 of the way between the fifth and sixth mark past the 14 centimeter mark. What will you list as the measurement of the length of the book with its associated uncertainty? *Hint: Remember that you have to align your ruler with both ends of the book.*

_____

_____

k. How many significant digits are there in 3,654,000? Write this number in exponential notation using the correct significant digits.

5. Answers may be typed or neatly printed. Completed work may be submitted by hardcopy or electronically by uploading to Hocus Focus. If files are uploaded, ***filename*** must be in the format "LastnameFirstinitialPerXReadAct1-1to1-4".