LABORATORY 3 – KINETIC ENERGY

This laboratory is divided into 3 parts.

Part 1 is to be done BEFORE you come to your weekly laboratory class.

Part 1, which also appears in your lab book, follows next. If there are internet links in Part 1, you can click on those links to go to that assigned web page.

For Part 1, you should write your answer(s) in the space(s) provided in your lab book and bring those answers to your lab class … or submit your answers otherwise as requested.

In the abbreviated Parts 2 and 3 (below), only the internet link(s) appear in this online version. For the full exercises in Parts 2 and 3, see your lab book.
Part 1. Laboratory preparation

Before starting this laboratory, you are required to read Chapter 3 in your textbook, *The Sciences*, by Trefil and Hazen.

Activity 1-1 – Background reading

To prepare you for this laboratory, please read carefully the textbook excerpt on kinetic energy at the following link:
http://www.auburn.edu/academic/classes/scmh/1010/KINETIC%20Energy.php

Also, read the article on ‘Wetumpka impact crater in Alabama,’ which is linked off the page given above. Or, click here for that link:
http://encyclopediaofalabama.org/face/Article.jsp?id=h-1035
Activity 1-1 – Background reading, continued

Once you have read this excerpt and related article several times, please answer the following 8 questions.

1. According to the background reading, what is the formula for kinetic energy (KE)?

2. Which variable is more important in determining the value of kinetic energy in most instance, mass or velocity? Why?

3. According to the background reading (and the figure in the reading), what causes an asteroid to have an “Earth-crossing” orbit and what does that mean?
Part 1. Laboratory preparation

Activity 1-1 – Background reading, continued

4. According to the Encyclopedia of Alabama web page, where in Alabama is Wetumpka impact crater located?

5. In the late 1990s, based on samples from drilling at Wetumpka impact crater, what did scientists learn that convinced them that this is an impact crater?

6. How large is Wetumpka impact crater? How is this measured?
Part 1. Laboratory preparation

Activity 1-1 – Background reading, continued

7. Was this crater formed in water or on land? How do researchers know?

8. List at least four specific environmental effects of this impact event that caused ecological damage to the area.

► Write your answers IN YOUR LAB BOOK and bring them to your lab class or submit as your lab teacher asks.
LABORATORY 3

NOTE – This is the end of the typically required pre-lab preparation work. After finishing this work, you are expected to look ahead at Parts 2 and 3 in your lab book before going to your weekly laboratory.

However, your lab teacher may require you to do additional pre-lab work beyond this point. If so, please do that assigned work and bring it to lab along with Part 1. All lab work should be written in your lab book.

The following abbreviated versions of Parts 2 and 3 of this laboratory contain the internet web links, if any, that are given in your lab book. These are clickable links.

THE FOLLOWING PAGES NOT COMPLETE VERSIONS OF PARTS 2 and 3 IN YOUR LAB BOOK. AGAIN, ONLY WEB LINKS FOLLOW.
Concepts of Science – SCMH 1010

LABORATORY 3

Part 2. Laboratory activity

SEE YOUR LAB BOOK FOR ALL QUESTIONS.

HERE IS THE CLICKABLE LINK IN THIS PART –

http://www.purplemath.com/modules/exponent.htm
Part 3. Laboratory retrospective activity

SEE YOUR LAB BOOK FOR ALL QUESTIONS.

NO CLICKABLE LINKS IN THIS PART.