

Incoming 8th Grade Science Summer Work

The Nature of Science (5 Parts) Click on the link Below to access each part

<https://www.ck12.org/physical-science/nature-of-science/>

1. READ- read the section Nature of Science (from the link above)

2. Review Questions from the reading

1. Define science.

2. What is the goal of science?

3. Use examples to show how science may advance.

3. Watch the Video: The Nature of Science from the link above and **Write 3 Facts or Comments Below**

4. Complete the Practice Problems from the link above and Write Your Score Below

5. Watch the Real World Science Video on Artificial Sweeteners, Read the Article and the answer the questions below

Learn more about artificial sweeteners at the link below. Then answer the questions that follow.

- <http://wamc.org/post/dr-nicholas-leadbeater-university-connecticut-chemistry-artificial-sweeteners>

1. Which three artificial sweeteners were discovered by accident? What lab safety rules were violated in their discovery?
2. When and how was saccharin discovered? How much sweeter is it than sugar?
3. When and how was cyclamate discovered? Why is cyclamate no longer used in the U.S.?
4. When and how was aspartame discovered? How widely is it used today?

5. What are the pros of artificial sweeteners compared with real sugar?

6. Artificial sweeteners can be hundreds or even thousands of times sweeter than real sugar. How can artificial sweeteners be so much sweeter than real sugar?