

Nature of Science:

<https://www.youtube.com/watch?v=TkvjDZseD4k>

Properties of water:

<https://www.youtube.com/watch?v=i00vX0jmhJ4>

1. What are the four unique properties of water? How does each contribute to life on earth?
2. How do hydrogen bonds contribute to properties of water?

Chemical Bonds:

<https://www.youtube.com/watch?v=7DjsD7Hcd9U>

1. What are the main chemical bonds? Examples of each.
2. How do main chemical bonds form?
3. Think about the biological importance of some of these chemical bonds.

Acids, Bases, and pH:

<https://www.youtube.com/watch?v=Xeuyc55LqiY>

1. How do you interpret the pH scale?
2. What does a change from pH 5 to 2 mean?
3. How changes in pH can affect biological systems?

Biological Molecules:

<https://www.youtube.com/watch?v=PYH63o10iTE&list=PLFCE4D99C4124A27A&index=43>

1. What is the role of dehydration and hydrolysis reactions?
2. What is the cellular function of each of the four organic molecules?
3. What are the four structural levels of proteins?

Cellular Organelles:

<https://www.youtube.com/watch?v=aczbMISMr8U&list=PLFCE4D99C4124A27A&index=44>

Answer the following questions:

1. What is the role of nucleus?
2. Smooth ER is responsible for (2):
3. What are energy organelles?
4. Follow the path of a protein being made to be exported from the cell.
5. What is the theory of endosymbiosis (mitochondria and chloroplast)?