

Episode 3 - Measurement: The Foundation of Chemistry

1. Measurements can tell us what is in a substance and how much is there. What else must be true about these measurements?
2. Several examples were given of measurements that are made on an everyday basis. In what areas were these measurements made?
3. What is meant when we say one balance is more "sensitive" than another?
4. How do we know if an instrument such as a balance is displaying the proper value for the mass of an object?
5. What is the role of the Bureau of Standards?
6. Why are human standards (like a former King of England) not desirable?
7. What is meant by:
 - a. a titration?
 - b. a standard solution?
8. When the bay water was tested for salinity, what evidence of chemical change took place?
9. Why is it important to know the amount of pollutants, such as mercury, present in water?
10. What is spectroscopy?
11. What is meant by precision? Is it possible for measurements to be precise but inaccurate?
12. Why are repeated trials of the same measurement desirable?
13. Pollutants and trace minerals are often reported in units called ppm. What is a ppm?
14. Measurements may be made directly and indirectly. Give an example of each that you saw in the video.