Review the Processes

**QUALITATIVE VS QUANTITATIVE DATA**

All of the observations in this worksheet were qualitative; that is, you observed a quality about an object (it smelled good, it was green, etc.). Another type of observation is quantitative, meaning that it can be described or measured in concrete numerical terms.

The following observations are quantitative: There are 30 students in my class. I weigh 98 pounds. I ate a 1 pound potato.

**Determine which of the following statements are quantitative (QN) or qualitative (QL).**

1. \_\_\_\_\_\_\_\_\_\_\_\_\_ The cup had a mass of 454 grams.

2. \_\_\_\_\_\_\_\_\_\_\_\_\_ The temperature outside is 250 C.

3. \_\_\_\_\_\_\_\_\_\_\_\_\_ It is warm outside.

4. \_\_\_\_\_\_\_\_\_\_\_\_\_ The tree is 30 feet tall.

5. \_\_\_\_\_\_\_\_\_\_\_\_\_ The building has 25 stories.

6. \_\_\_\_\_\_\_\_\_\_\_\_\_ The building is taller than the tree.

7. \_\_\_\_\_\_\_\_\_\_\_\_\_ The sidewalk is long.

8. \_\_\_\_\_\_\_\_\_\_\_\_\_ The sidewalk is 100 meters long.

9. \_\_\_\_\_\_\_\_\_\_\_\_\_ The race was over quickly.

10. \_\_\_\_\_\_\_\_\_\_\_\_The race was over in 10 minutes.

**CONSTRUCTING INFERENCES FROM OBSERVATIONS**

Suppose your friends went to the beach at noon on a warm day. They saw some black and white birds. Which of the following statements are observations and which are inferences?

**Indicate your answer with either the letter “O” for an observation, or the letter “I” for an inference.**

1. \_\_\_\_\_\_\_\_\_\_\_\_\_ It is summertime.

2. \_\_\_\_\_\_\_\_\_\_\_\_\_ It is daytime.

3. \_\_\_\_\_\_\_\_\_\_\_\_\_ They saw birds.

4. \_\_\_\_\_\_\_\_\_\_\_\_\_ They saw seagulls.

5. \_\_\_\_\_\_\_\_\_\_\_\_\_ They went swimming.

6. \_\_\_\_\_\_\_\_\_\_\_\_\_ One friend’s name was Bob.

7. \_\_\_\_\_\_\_\_\_\_\_\_\_ It was a warm day.

8. \_\_\_\_\_\_\_\_\_\_\_\_\_ The birds were black and white.

9. \_\_\_\_\_\_\_\_\_\_\_\_\_ They ate lunch and drank Coca-Cola.

10. \_\_\_\_\_\_\_\_\_\_\_\_ The people are shaking hands and are friends.