\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ work best when they are accurate and precise

|  |  |
| --- | --- |
| **Accuracy** | **Precision** |
| * + **http://www.mhhe.com/physsci/chemistry/chang7/esp/folder_structure/ch/m2/s2/assets/images/chm2s2_1.jpgAccuracy is a measure of how close a measurement comes to the ­­\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ value of whatever is measured**   + **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**   + **Poor Accuracy results from \_\_\_\_\_\_\_\_\_\_\_or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**   **\_\_\_\_\_\_\_\_\_\_** | * + **Precision is a measure of how close a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of measurements are to one another**   + **http://www.mhhe.com/physsci/chemistry/chang7/esp/folder_structure/ch/m2/s2/assets/images/chm2s2_1.jpgdepends on more than \_\_\_\_\_\_\_\_\_ measurement**   + **­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**   + **Check by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Measurements**   + **Results from \_\_\_\_\_\_\_\_\_\_\_\_\_ technique** |

|  |  |  |
| --- | --- | --- |
| **Accuracy and Precision** | **Target** | **Example** |
|  | img017 | The density of water is 1.0g/ml.  You experimental values were:  \_\_\_\_\_\_ g/ml,  \_\_\_\_\_\_ g/ml,  \_\_\_\_\_\_ g/ml,  \_\_\_\_\_\_ g/ml,  \_\_\_\_\_\_ g/ml |
|  | img017 | The density of water is 1.0 g/ml.  Your experimental values were:  ­­­­\_\_\_\_\_\_ g/ml,  0.80 g/ml,  \_\_\_\_\_\_ g/ml,  0.88 g/ml,  \_\_\_\_\_\_ g/ml |

|  |  |  |
| --- | --- | --- |
|  | img017 | The Atomic mass of Carbon is 12.01 amu’s  Your experimental values were 11.95 amu’s  12.01 amu’s  11.97 amu’s  11.98 amu’s  12.03 amu’s |
|  | img017 | The Atomic mass of Carbon is 12.01 amu’s  Your experimental values were 11.95 amu’s  11.30 amu’s  10.91 amu’s  11.09 amu’s  12. 53 amu’s |

**Summary**:

|  |  |
| --- | --- |
| The electronegativity of Fluorine is 3.8.  The experimental values were:  2.1  1.6  3.5  2.8  4.2 | 45bullseye |

Use this example.

1. What kind of example of Accuracy and Precision is this. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Draw the arrows in the Target demonstrating this relationship.