SC 130 Physical Science Laboratory 14

December 04 2008

**Introduction**

In physical science laboratory, the activity took place in the science class room. This activity was based on measurements of different types of magnifying lens or the measurement of the focal length of the magnifying lenses.

**Materials**

- Magnifying lenses
- Blank paper
- Meter stick

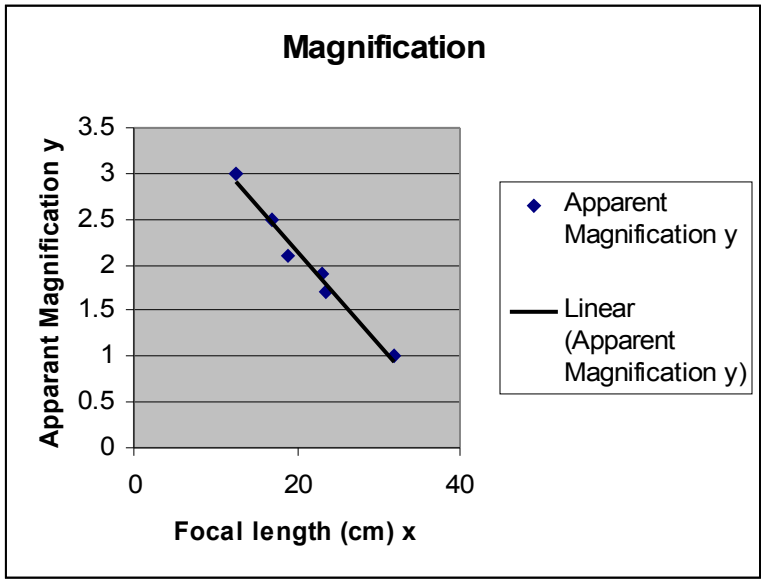
**Procedure**

This activity was done by working in pairs. First, the magnifying lens was used to generate a focused image of the fluorescent lights onto the sheet of paper. The measurement was done by measuring the focal image distance in centimeters. The measurement of the apparent magnification was done by first, placing the meter stick on the table and holding the magnifying glass above the meter sticks to produce a magnified image of the meter stick. A ruler was being used to measure the apparent size of one centimeter on the meter stick as seen through the magnifying glass. There are six different types of magnifying glasses been used with different sizes. The data was recorded following each measurement.

**Data Table**

| Focal length (cm) | Apparent Magnification |
|---|---|
| 23 | 1.9 |
| 19 | 2.1 |
| 32 | 1 |
| 17 | 2.5 |
| 23.5 | 1.7 |
| 12.5 | 3 |

**Data Chart**




**Analysis**

There was a relationship between the focal length in centimeter and the apparent magnification. It was a non-linear relationship. The slope was around -0.10 and the intercept is at 4.18.

**Conclusion**

In conclusion, the data was successful. There was a mathematical relationship between the focal length and the apparent magnification and it was non-linear. Measuring

the focal length distance in centimeters and the apparent magnification was a great experience and it was exciting.

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