



Drexel-SDP GK-12 ACTIVITY

Subject Areas: Forensics, Statistics, Calculator based Inquiry, Scientific Method

Activity Title: Guess My Age

Grade Level: 5 (5–8)

Time Required: 1 weeks, 1 classes/week & 1.5 hr per class

Group Size: 1 student

Expendable Cost per Group: 0 USD

Summary:

The investigation is inquiry based. The students asked how old I was and so as part of this question. I had the students profile me. The subsequent results were collected and analysed to determine how old the students think I am.

Engineering Connection:

Profiling is used in many areas of society. Police use it to link events and people together. Teachers do in order to determine areas of need. While Engineers profile jobs and individuals in order to effectively overcome trouble spots. The analysis and results can be applied to many questions; in our case learning about the scientific method. Here the students developed a Hypothesis as a class and I help walk them through the experimental procedure.

Keywords: Forensics, Scientific method, mean, Statistics

Educational Standards:

Science:	3.1.5 a, d, e	Math: 2.1.5 c
	3.2.5 a, b, c	2.2.5 c, e
	3.4.5 b, c	2.3.5 a, c, e
	3.1.7a,	2.4.5 a, c

3.1.7b
3.1.7c

2.5.5 a, b
2.6.5 a, b, c, e

Learning Objectives:

After this lesson, students should be able to:

- Review analyzing data; including mean median and mode.
- Know the difference between, bar pie and line plots.
- Learn about how a hypothesis is turned into an experiment

Materials List:

Each student needs:

- Lab notebook
- Pen or pencil
- Calculator

Introduction / Motivation:

Students are naturally inquisitive about their teachers. They want to know everything they can about you. As a teacher you can harness that to instruct the students how to perform certain math exercises. In this case determining your age; which by itself is not that important; but when the students learn to compute mean median and mode while learning about scientific method the lesson is very powerful.

Procedure:

The students write down in their lab notebooks how old is my teacher?

Students write down how old they think you are in their lab note books.

The students then share their guess with the rest of the class.

The teacher and the students record the class data.

The students and the teacher determine range of the answers.

The students divide the range into 7 equal parts.

The students count how many guess fall between each part

The students then construct pie charts, bar graphs and line plots.

The students are asked which graph best represents the data when answering:

What does the class think my age is?

The students discuss ways in which they can prove whether they are correct and record their discussion.

Assessment:

Laboratory notebook

Activity Extensions: None

Other:

FOSS Variables Unit

<http://lhsfoss.org/scope/5-6.html>

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