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Exhibit #2

Estimating Heights (Revised version)

The goal of my lesson is to have students learn about functional relationships and how they can be used to make predictions.

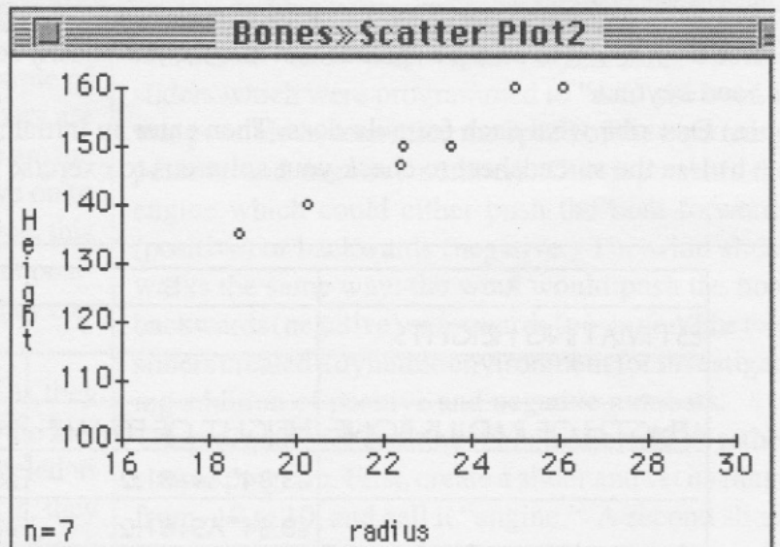
The teacher begins by telling the class that yesterday an unusual letter arrived in the mail. The teacher then reads the letter to the whole class. (The letter - on the right - is on a transparency and placed on the overhead so the class can read along.)

Next, the teacher asks the class for suggestions about how they might help Dr. Saunders. Hopefully, the students will suggest that if they do some measurements they might discover some patterns that may lead to some predictions. The students, working in small groups, measure the radius bone and height of each student in their group. (Each group gets a recording sheet like the one below and a measuring device.)

After each group completes their measurements, a spokesperson from each group reports their results to

Names	Radius <small>in cm. or in.</small>	Height <small>in cm. or in.</small>

Bones	
radius	Height
22.4	147
26.1	160
18.7	135
20.3	140
22.5	150
23.6	150
25	160
***	***



(Screen shots from Statistics Workshop - Sunburst)

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Dear Mathletes,

I am an anthropologist from Canada who investigates changes in human body size and shape over time. I have been working on comparing the differences in heights of people who lived during the 19th century and the present. Unfortunately, I don't always have complete skeletons of the 19th century folks to work from. I do have many radius bones that I dug in a pioneer graveyard.

Here is where I need your help (since my math is bit shaky and I heard through the grapevine that you guys are the best!) Is there a way to predict the height of a person by just knowing the length of the radius bone? (In case you don't know the radius bone extends from your elbow to your wrist.)

I hope you can help me.

Sincerely,
Dr. Shelly Saunders

the teacher who records them using an overhead projector. (The transparency is the same as their recording sheets.)

The teacher then asks the students if they see any patterns. After some discussion, the teacher (or a student) suggest drawing a graph. It might look something like this: