Mock AFM (Atomic Force Microscope) PowerPoint

1) Slide 3: What’s the OBSERVATION? What’s the INFERENCE ?

2) Slide 4: What’s the OBSERVATION? What’s the INFERENCE ?

 Offer a less likely explanation for the observation

1. Slide 8: When you measured wind speed, you probably didn’t

 measure wind speed. What did you actually measure?

1. Define “proxy variable” as you understand it.
2. Describe another common situation where a proxy variable is used.
3. Describe 3 ways using a proxy variable can create problems or

 limitations.

 a) b) c)

7) Describe 2 different situations (examples) in which scientists MUST use a proxy variable, because what needs to be measured is completely beyond the capabilities of human senses.

 a) b)

8) Slide 18: Briefly describe how an ‘AFM’ works.

9) Slide 20: You’ll probe to discover and map an unknown and unseen shape in

 a box Before you start, describe 2 possible problems you anticipate.

 a) b)

1. After you started, you probably (I hope!) had at least one good idea, and changed your method. Describe what you changed, and why.

11) Slide 21: What would be the benefits of increasing your sampling resolution?

12) What would be one drawback to increasing your sampling resolution?



1. Make a quick sketch (underneath) of what the bottom of a ‘black box’ would look like for each graph:

