Making Observations and Inferences

Observations

- Observations:
  - We use our senses to gather information about the world around us.
  - There are two types of observations.
    - Qualitative
    - Quantitative

Qualitative

- **Qualitative observation:**
  - quality
  - Usually made with our senses.
  - Color, shape, feel, taste, sound.

Examples:
- She is wearing a blue sweater.
- The lab tabletop is smooth.
- The dog's hair is shiny.

Quantitative

Quantitative observation:
- quantity
- How many?
- Will always have a number.
- Based on exact measurement.

Examples:

- The room is 8 meters across.
- Sarah is 141-cm tall.
- Sam weighs 450 Newtons.

Inferences

Inference:

- A logical interpretation of an event that is based on observations and prior knowledge.

- What does this mean?
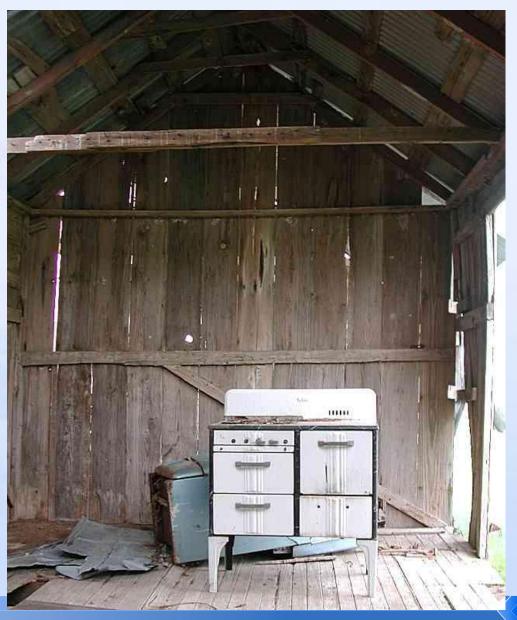
Making Inferences

- You are at the counter in the office to get a bus pass signed. You see a student leave the principal's office crying and upset. We could make an inference as to why the student is upset.
  - Could be in trouble (ISS, OSS, expelled)
  - Family problems at home (sick, accident)
  - Student not feeling well
  - Student has poor grades (failing, retention)

Observation VS Inferences

- Observation – Based on the five senses:
  - Sight
  - Smell
  - Touch
  - Taste
  - Hearing

- Inference – Based on prior knowledge or opinion

Observation vs Inference

- List 3 Observations

- List 1 Inference

Observation vs Inference

- List 3 Observations

- List 1 Inference

Observation vs Inference

List 3 Observations

List 1 Inference

Observation vs Inference

- List 3 Observations

- List 1 Inference