**Gathering Information:
Observations and Inferences**Observation: using senses to gather information.

Two types of observations:
1. Qualitative observation: Usually made with our senses.
Examples:

•Olivia is wearing a blue sweater.

•The lab tabletop is smooth.

•The dog’s fur is shiny.

2. **Quantitative observation**: Will always have a number and is based on exact measurement.

Examples:

•The room is 8 meters across.

•Sarah is 141-cm tall.

•Sam weighs 450 Newtons.

**Inference:** A logical interpretation of an event that is based on observations and prior knowledge.

Examples: happily purring cat, blood, feathers = ?????
crying student, walking out of office = ?????

**Observation vs Inference**

Observation – Based on the five senses:

•Sight

•Smell

•Touch

•Taste

•Hearing

Inference – Based on prior knowledge or opinion