

Do Now

- Update your table of contents

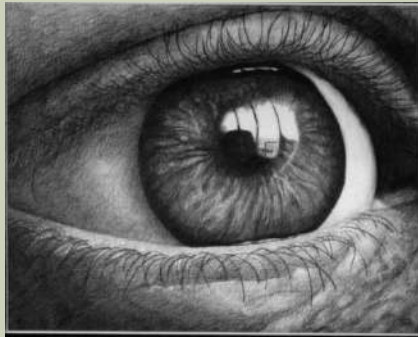
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Fold your notes booklet style and tape/glue into page 33.

Observations

■ An observation is the gathering of information by using our senses.

- Sight
- Smell
- Hearing
- Taste
- Touch



■ There are two types of observations.

- Qualitative
- Quantitative

Qualitative Observations

- Qualitative observations describe what we observe.
 - THINK: Qualitative = Quality (descriptive)
- These observations use adjectives to describe something.
- Examples:
 - The flower has white petals.
 - Mr. Lerner has messy hair.

Quantitative Observations

- Quantitative observations measure what we observe.
 - THINK: Quantitative = Quantity (numerical)
- These observations use numbers to measure something in a quantitative way.
- Examples:
 - The flower has 5 petals.
 - Mr. Lerner has one straight thumb and one hitch hiker's thumb

Which is better?

- Both types of observations are important to science. However, in an experiment, quantitative observations are more ideal because they can be precisely and objectively compared.
 - Qualitative: The road is long. (describes)
 - Quantitative: The road is 5km long. (measures)
- Some factors of an experiment are easier to quantify than others.

Checkpoint

- Which ones are quantitative observations?
Which ones are qualitative observations?
 - The grass is green.
 - The girl is 1.555 m tall
 - I have three dogs.
 - My dog has white fur.
 - The liquid is red.
 - The mass of the object is 5g.

What are inferences?

- Inferences are explanations for an observation you have made.
- They are based on your past experiences and prior knowledge.
- Inferences are often changed when new observations are made.
- Again, observations are information we gather directly through our five senses and inferences help to explain those observations!

Example

- **Observation:** The grass on the school's front lawn is wet.
 - What are the possible inferences?

Examples

- **Observation: The school fire alarm is going off.**
 - **What are the possible inferences?**

Examples

- **Observation: A student is sitting in the main office.**
 - **What are the possible inferences?**

FOLDABLE ON PAGE 32

- Cut the bold lines
- Fold the dotted lines
- On the inside, write if each statement is an observation or inference
- On the outside for numbers 5,6,7,8 come up with 4 statements about the picture.
- Trade notebooks with a table member and solve their #5-8



EXIT SLIP



Exit Slip: Write your name on top

- Identify if the following below are **Qualitative Observations, Quantitative Observations, or Inferences.**
- 1. Witness 1: "I think Mr. Mane was carrying a lot of money at the time."
- 2. Witness 2: "I heard the police come 2:30 minutes after I heard a gunshot."
- 3. Witness 3: "I saw a tall man and short woman running together."
- 4. Based on these statements what **further inferences** can you make about today's crime scene? Provide 2 sentences or more.

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- On the top label the top line: **Observations:**
- Skip down to halfway down the page
- Create your **Data chart** for tomorrow's results.
 - How many trials are you doing?
 - Label your chart with what you're testing in your experiment.
- When you are done, then you may work on your homework, boy in water.

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