

_____ (Name)

Mrs. Leonard

science 7/Per. _____

_____ (Date)

Claims, Evidence and Reasoning Practice Worksheet

Review of info:

Claim: a statement about the solution to a problem – what you think you know

Evidence: scientific data to support your claim - measureable

Reasoning: justification (which means you have to back it up) which shows why the data supports your claim using SCIENTIFIC PRINCIPLES

Find the Claim, Evidence, and Reasoning in the following paragraphs:

Underline the Claim; CIRCLE the Evidence; and HIGHLIGHT the Reasoning.

1. Life Science: A common type of asexual reproduction found in nature is called Mitosis. Mitosis requires less energy than sexual reproduction does. Mitosis can occur in seconds and does not require a mate to reproduce. Sexual reproduction requires two compatible parents. It also requires time to produce the egg and sperm cells and then for fertilization to occur. Energy is required to find a compatible mate, produce sex cells, and for fertilization. Therefore Mitosis requires less energy than sexual reproduction does.

2. Physical Science: Cold air weighs more than hot air. When I filled a 9 centimeter diameter balloon with cold air it weighed 1 gram and when I weighed the same size balloon with hot air it weighed 0.5 grams. When molecules are cooled they move closer together and when they are heated up they move farther apart. Because of this more molecules can fit into a balloon when the air going in is cold than when the air going in is warm.

Now see if you can make your own claim, evidence, and reasoning using what you know about these topics.

3. Brianna wanted to compare the densities of two different solids of the same size 6cm^3 (same volume) to see which one was more dense. Solid A had a mass of 2 grams and Solid B had a mass of 0.5 grams. (Density = Mass/volume)

Claim: _____

Evidence: _____

Reasoning: _____

4. Sammy wants to see if plants really do grow better in sunlight. He uses 3 plants of the same type and size in 3 locations. Plant A is placed on Mrs. Shaw’s countertop in the center of the room, Plant B is placed inside the cabinet, and Plant C was placed near window sill. After 5 days Sammy measures the growth of each plant and documents it in the table below.

Sammy’s Plant Growth Experiment		
	Height on Day 1	Height on Day 5
Plant A	12 cm	14 cm
Plant B	12 cm	13 cm
Plant C	12 cm	16 cm

Claim: _____

Evidence: _____

Reasoning: _____
