Answer Key to Assessment Experimental Design

**Fill in the blank:**

1. Observation
2. Hypothesis
3. Prediction
4. Experiment
5. Sample Size
6. Independent Variable
7. Dependent Variable
8. Quantitative Data
9. Control Group
10. Hypothesis

**Matching:**

1. B
2. J
3. A
4. G
5. D
6. C
7. E
8. F
9. I
10. H

**Multiple Choice:**

1. b
2. c
3. d
4. c
5. c
6. b
7. c
8. b
9. a
10. b

**Critical Thinking**:

1. IV: fertilizer DV: tomato size
2. IV: Cat Population DV: Dog Population
3. IV: Drinking soda DV: results dental check
4. IV: Weight of the pig DV: Number of piglets in the Litter
5. IV: Extra studying DV: Exam grade
6. C
7. C
8. B
9. D
10. A

**Design an Experiment:**

Does adding VWG make a loaf of bread rise higher?

I predict that if I add 15 grams of VWG to my dough then it will rise 2cm higher.

VWG strengthens the dough so it can hold more of the gas produced by the yeast and it rises higher.

Flour, yeast, water, vital wheat gluten, bread pans, oven, ruler

Prepare 4 identical bread doughs, but only add VWG to two of the doughs. Bake next to each other in the oven for the same amount of time at the same temperature. Once cooled, measure the heights of each loaf and compare results.

VWG Loaf Height (cm)

|  |  |
| --- | --- |
| LOAF 1 + |  |
| LOAF 2 + |  |
| LOAF 3 - |  |
| LOAF 4 - |  |