

Name _____

Period _____

Gummi Bear Lab

Gummi Bears taste good! But how dense are they? Density is determined by mass and volume. When we mass something, we are finding how much matter or “stuff” is packed into a gummi bear. When we find volume, we are calculating how much space a gummi bear takes up. What we really need to find out though, is how will the density of a gummi bear changes overnight after sitting in water? Will they become more dense, or less dense? Let’s find out!

Purpose: To see how gummy bear density changes after soaking in water overnight

Hypothesis: (Educated Guess) What do you think will happen to gummi bear density after soaking in water over night. Do you think it will increase, decrease, or stay the same?

Materials:

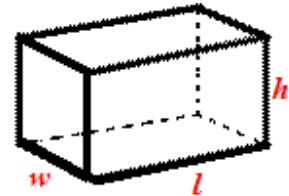
- Ruler
- Triple Beam balance scale
- Water
- Gummy bear

Procedure:

Day 1:

1. First we will mass (weigh) the gummy bear in grams using the triple beam balance. Record your mass in grams in the results box.

2. Next, we need to find the volume. This can be done by measuring the length x width x height (L x W x H) of the gummy bear with a ruler in centimeters. *Not inches!*



3. Pour the water and our gummy bear into a Dixie cup to sit overnight. Wait for instructions!

4. Now that we have mass and volume, we need to calculate density Remember: Density equals $D = \text{mass(g)} / \text{volume(mL)}$. Record density in the data box below.

$$\rho = \frac{m}{V}$$

density = mass / volume

Day 2:

1. Pour the excess water out and dry off the gummy bear
2. Repeat steps from Day 1. Record you data in the box above. *Be very careful with your Gummi Bear, as it is very fragile!*
3. Compare your density with day 1.

Results

Day	Bear color	Mass (gm)	Volume=LxWxH (cm cubed)	Density (g/cm ³)
1				
2				

Conclusion:

Please answer the following questions:

1. What happened to your gummy bear after soaking in water over night? Was your Hypothesis correct?
2. How did the mass change? Be specific:
3. How did the volume change? Be specific:
4. How did density change over night after soaking in water?
6. What did you learn?

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Gummi Bears taste good! But how dense are they? Density is determined by mass and volume.

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Purpose:

Hypothesis: (Educated Guess)

Materials:

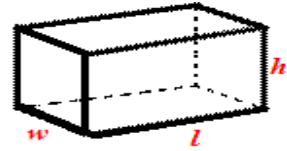
- _____
- _____
- _____
- _____

Procedure:

Day 1:

1. _____

2. _____



3. _____

4. _____

$$\rho = \frac{m}{V}$$

density = mass / volume

Day 2:

1. _____

2. _____

Be very careful with your *Gummi Bear*, as it is very fragile!

3. _____

Results:

Day	Bear color	Mass (gm)	Volume (cm cubed)	Density (g/cm ³)
1				
2				

Conclusion:

Please answer the following questions:

1. What happened to your gummy bear after soaking in water over night? Was your Hypothesis correct?
2. How did the mass change? Be specific:
3. How did the volume change? Be specific:
4. How did density change over night after soaking in water?
5. What did you learn?