

Station 10: Density

Complete the following questions while reading “What the Heck is Density?”

1) Density is a comparison of _____ and _____ of a substance.

2) Density of a substance does not change even if the _____ changes, no matter how _____ or _____ a substance is.

3) Find the density of the brick of gold and the watch of gold:

$D = m/v$ (density equals mass divided by volume)

Gold brick: Mass: 20,000 grams

Volume: 1040 cm^3

Density: _____ g/cm^3

Gold watch: mass: 550 grams

Volume: 28.5 cm^3

Density: _____ g/cm^3

4) Density is how much something _____, compared to how much _____ it _____ up.

5) Find the density of the gold brick and the water brick:

Gold brick: Mass: 14,745.6 grams

Volume: 768 cm^3

Density: _____ g/cm^3

Water brick: mass: 768 grams

Volume: 768 cm^3

Density: _____ g/cm^3

6) Read the paragraph about Archimedes and the king’s crown. Explain how density can be used to identify substances.

7) Looking at the density of water, explain how density affects a substance’s ability to sink or float.
