**First semester exam study guide**

SCIENCE EXAM – Wednesday Dec. 14

|  |  |  |
| --- | --- | --- |
| **Volume** | **Mass** | **Density** |
| 30.5 mL | 12 g |  0.3934 g/ml |
| 240 mL | 20 g | 0.0833 g/ml |
| 24.64 cm3 | 1.47 g | 0.0597 g/cm3 |
| 525 mL | 5.26 g | 0.0100 g/ml |
| 95 cm3 | 2.9 g | 0.0305 g/cm3 |

Calculate the density!

*Match the word to the correct definition.*

Problem

Research

Hypothesis

Control

Dependent/responding variable

Independent/manipulated variable

Data

Research - Background information about experiment

Control - Part of an experiment used as a comparison

Data - Charts, tables, and graphs

Problem - Written in question form, must be testable

Hypothesis - Prediction or guess at what will happen

Dependent/responding variable - Part of the experiment affected by the independent variable

Independent/manipulated - Part of the experiment that causes change

*FILL IN THE BLANK*

Photosynthesis occurs in the chloroplast.

Respiration occurs in the mitochondria.

The reactants are on the left of the arrow.

The products are on the right of the arrow.

The reactants of photosynthesis are carbon dioxide and water.

The reactants of cellular respiration are glucose and oxygen.

The products of cellular respiration are carbon dioxide, water and energy.

The products of photosynthesis are glucose and oxygen.

C6H12O6 is glucose.

H2O is water.

CO2 is carbon dioxide.

O2 is oxygen.

Photosynthesis is the process by which plants make their food.

Cellular respiration is the process by which energy is produced.

*Write the shape of the bacteria.*

Spirilla spiral

Cocci round

Bacilli rod

*Match the organelle with its function.*

Cytoplasm

Chloroplasts

Nucleus

Mitochondria

Cell Wall

Cell Membrane

Vacuole

Cell Wall Rigid outer covering of a plant cell

Cell membrane flexible; protects cell

Vacuole stores waste, water, & food

Mitochondria produces energy

Cytoplasm gel-like fluid

Chloroplast produces chlorophyll

Nucleus Control center of the cell

Match the protist with the correct body part-

Euglena Cilia

Paramecium Psuedopod

Amoeba Flagella