

## Matter

### Note-taking Guide - Answer Key

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*space, cubic centimeter, color, matter, balance, water, cylinder, volume, physical, amount, total, milliliters, displacing, mass, grams, rise, cubes, equal, less, known, difference, more, pans, kilograms*

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All these objects are made of matter.

Matter is anything that has mass and takes up space.

Mass is the amount of matter in an object.

We use a balance to measure mass. To find the mass of an object, place it in one of the balance pans.

Then place objects whose masses are known in the other pan until both the pans are balanced.

The mass of the object is equal to the total mass placed in the other pan to balance it.

Grams and kilograms are some of the units we use to measure mass.

Objects that contain less amount of matter have less mass, and objects that contain more amount of matter have more mass.

The amount of space an object takes up is called its volume.

We can measure the volume of an object shaped like this Rubik's cube or this block by counting the number of certain sized cubes that fit into it.

One of the units used to measure volume is cubic centimeter.

We can measure the volume of this rock in units called milliliters using a graduated cylinder.

Tie the rock to one end of a thin, strong string, and then lower it gently into the cylinder that contains water.

The rock takes up space inside the water by pushing away, or displacing, an equal volume of water. This causes the level of water to rise.

The difference in the levels is the volume of the rock.

We can describe matter using its physical properties, such as mass, volume, shape, and color.