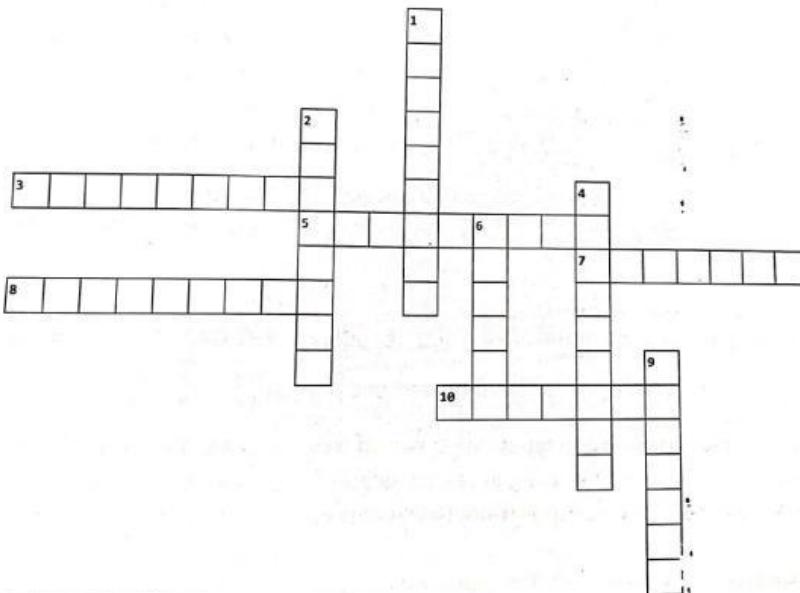


Malleable natural synthetic tensile strength insulator

ductility luster hardness brittle conductor plastic

Task 1. Solve the crossword.**Crossword Clues:****Across**

3. The resistance of a material to deformation or breaking under pressure. _____
5. A type of material that can be stretched or shaped without breaking. _____
6. The quality of shining by reflecting light; often used to describe metals. _____
7. Describes a material that easily breaks or shatters when stressed. _____
9. A material that does not conduct electricity or heat well. _____

Down

1. The ability of a material to conduct heat or electricity. _____
2. Man-made materials, often created to imitate natural ones. _____
3. The ability of a material to be stretched into a thin wire. _____
4. Describes a natural source or origin, not artificial. _____
5. The amount of stress a material can withstand while being stretched. _____

Task 2. Match the pair of words with their correct characteristic.

1. _____ Both relate to the ability of a material to be shaped or stretched without breaking.
2. _____ These are opposites in terms of electrical or thermal conductivity, where one allows energy flow and the other restricts it.
3. _____ Refers to the origin of a material, with one being man-made and the other occurring in nature.
4. _____ These properties describe the strength of a material, with tensile relating to stretching and hardness to resistance against scratching.
5. _____ Refers to how a material behaves under stress, with brittle materials breaking easily and plastic ones deforming.
6. _____ Both can be used to describe physical characteristics of minerals or materials, luster referring to surface sheen, and hardness to scratch resistance.

Task 3. Read the text and fill in the missing parts.

Materials have various properties that determine their suitability for different uses. For instance, metals are often malleable, meaning 1) _____. This property is closely related to ductility, 2) _____. Some materials are brittle and can easily shatter under stress, while others are plastic, meaning they can be molded into different shapes.

Materials can also be natural or synthetic, with natural ones occurring in nature and synthetic ones like synthetic plastics being man-made from chemical processes. The tensile strength of a material measures 3) _____. When it comes to thermal or electrical properties, a conductor 4) _____, while an insulator prevents this flow. Lastly, luster refers to the way 5) _____, and hardness indicates its resistance 6) _____.

Task 4. Fill in the gaps in the sentences with the correct word.

1. Gold is a _____ metal, which means it can be easily shaped into intricate jewelry designs.
2. The _____ strength of a material is crucial in construction, as it determines how much weight it can support without breaking.

3. Rubber is an excellent _____ which is why it is often used for electrical cables to prevent shock.
4. The _____ of copper allows it to be drawn into thin wires for electrical applications.
5. The _____ of diamonds makes them ideal for cutting tools, as they can easily scratch other materials.
6. Glass is considered a _____ material because it can shatter easily when subjected to sudden impact.
7. Copper is a widely used _____ of electricity, making it essential in electrical wiring and circuits.
8. _____ are versatile materials used in everything from packaging to automotive parts due to their lightweight and moldable nature.

Task 5. Fill in the gaps with the correct word from the list.

Setting: A materials science lab

Alex: Hey Jamie, have you finished your research on the properties of metals?

Jamie: Yes, I found that 1)_____ is a key factor when choosing materials for construction. Some metals can resist scratches better than others.

Alex: That's interesting! I also learned that gold is 2)_____, which means it can be shaped easily. That's why it's often used in jewelry.

Jamie: Exactly! And have you noticed how shiny it looks? That's its 3)_____. It's one of the reasons people find it so appealing.

Alex: Right! But not all materials are durable. For example, glass is quite 4)_____. It can shatter easily if dropped.

Jamie: True! On the other hand, rubber acts as a great 5)_____. It prevents electricity from flowing through, which is important for safety.

Alex: Speaking of electricity, I read that copper is an excellent 6)_____. It allows electricity to flow freely, making it perfect for wiring.

Jamie: That's correct! And when we talk about plastics, they are mostly 7)_____. materials. They're made through chemical processes rather than being found in nature.

Alex: Absolutely! But did you know that the 8)_____ of a material is important too? It tells us how much a material can be stretched without breaking.

Jamie: Yes, and materials like steel have high 9)_____ strength, which means they can handle a lot of force without breaking.

Alex: This is fascinating! Understanding these properties helps us choose the right materials for various applications.