

Activity 12

Analyze Like a Scientist**Useful Properties of Matter**

Read the text. Highlight each type of material in blue and the properties of that material in yellow. Then, complete the activity that follows.

Helium is a gas that is used to fill balloons. Its properties make it useful for this purpose. For example, a balloon filled with helium gas is lighter than air, so balloons filled with helium float in the air. This is a physical property of helium. Also, helium is not poisonous or flammable, so it is safe to use. (A flammable material is easily set on fire.) Both of these are examples of chemical properties.



These balloons are filled with helium gas. What property of helium makes it useful for filling party balloons?

Copper is a metal used to make electrical wires. Its physical properties make it useful for this purpose. Copper can be stretched into a thin, flexible wire, which is a physical property. Copper also conducts electricity well, which is another physical property. In contrast, it would not be useful to make wires out of a material like wood. Unlike copper, wood cannot be easily stretched and does not conduct electricity well.

Glass is used to make windows and lightbulbs. What properties of glass make it useful for these purposes?



Diamonds are one of the hardest materials on Earth. They are so hard that they can be used to drill through rock. How do the properties of a diamond determine how they are used?