



Carbon allotropes: Diamond and Graphite

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Students Sheet



12C

A. Write (T) True or (F) False for the statements below. (5 minutes)

1- Graphite is a conductor and can be used as the material in the electrodes of an electric arc lamp.

2- Allotropes have different physical properties and the same chemical properties.

3- The atoms forming allotropes have the same kind of bonding in between, but in different manners.

4-Diamond is a hollow cluster of 60 carbon atoms shaped like a soccer ball.

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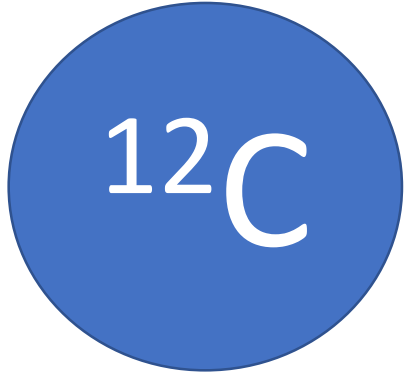
B. Fill in the gaps in the following phrases. (3 minutes)

Allotropy or **allotropism** is the property of some chemical elements to exist _____, in the same physical state, known as _____ of these elements.

The most known allotropes of the carbon are: _____ and _____.

There are also known other ___ allotropes of carbon, those being _____, _____, _____ and _____.

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C. Connect with a line each allotrope of the carbon with the right specified structure. (2 minutes)

Diamond

Layered, planar

Graphite

Tetrahedral