

Marks
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- The Periodic Table as arranged by Mendeleev allows us to make predictions about the behaviours of elements based on those around them. Briefly describe why the Periodic Table works.

Silicon and tin have the same structure as diamond. Use the information in the following table to predict the density of tin.

Element	Atomic Mass	Density (g cm^{-3})	Bond length (pm)
Si	28	2.329	233
Sn	118		280

Answer: