

Mohs Scale of Mineral Hardness

In 1812, German mineralogist Friedrich Mohs (1773–1839) created the Mohs scale of mineral hardness while serving as Professor of Mineralogy at the Joanneum in Graz, Austria, an institution later associated with the University of Graz. He chose ten common or readily available minerals as reference points. The scale is not linear and is somewhat arbitrary in its progression.

Hardness	Mineral	Associations and Uses
1	Talc	Used in talcum powder to keep skin dry and smooth. Softest mineral on the scale.
2	Gypsum	Used to make plaster of Paris and wallboard. Forms when salty water dries up.
3	Calcite	Found in limestone, chalk, and seashells. Fizzes in acid!
4	Fluorite	Helps protect teeth from decay. Also used in colourful gemstones.
5	Apatite	Found in bones and teeth. Its name sounds like “appetite”!
6	Orthoclase	A type of feldspar found in granite. “Feld” means “field” in German.
7	Quartz	Used in watches and electronics. Also found in sand and shiny crystals.
8	Topaz	A sparkling gemstone, often golden or blue. November’s birthstone.
9	Corundum	Used in sandpaper and cutting tools. Ruby and sapphire are colourful types.
10	Diamond	Hardest natural material. Used in jewellery and drills to cut other rocks.

2.5	Fingernail
2.5–3	Gold, Silver
3	Copper penny
4-4.5	Platinum
4-5	Iron
5.5	Knife blade
6-7	Glass
6.5	Iron pyrite
7+	Hardened steel file