















Gem Story: Discovery To Destination

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Mining Gemstones

Gems are found deep underground. Miners dig tunnels deep into the earth to find them. The mines are dark, hot, and dangerous.

The miners work long hours using digging tools. It's not unusual for miners to work for years without finding gems.

Miners follow indicator minerals to guide them to beautiful gems. Once a miner finds a gem, they will return to the ground again and again.





Gems around the world

Miners dig up gem rough, natural mineral stones, all over the world.

East Africa is rich with beautiful gem rough.

Tanzania is home to the Garnet family, Spinel, Tourmaline, and of course, Tanzanite.

Kenya has varieties of Garnet and Tourmaline, such as Tsavorite Garnet found near Tsavo Park, and Chrome Tourmaline found in Southern Kenya.





A gemologist has an understanding of each mineral's qualities. This means they can choose the pieces of rough with the greatest potential.



Rough gems are purchased, \underline{v} , and imported into the United States legally.

Cutting Gems

Gem cutters work from diagrams, using plans to cut gemstones from the rough they are provided.

Some gem cutters, like Roger Dery, use their knowledge of current and historic cuts to show the gem's natural beauty.





Gem cutters grind geometric flat surfaces onto the gem called <u>facets</u>. When cut, facets create patterns on the gem and make it shine by reflecting light. Different types of gemstone facets have names, too.



Gems find their home

The cut gems are then sent to jewelers. Each gem has a story to tell, including where they came from and what makes that stone special. Each gem is one-of-a-kind!

Jewelry made with gemstones can come in any color, shape, and size.



Vocabulary:

diagrams - a simplified drawing showing the appearance, structure, or workings of something; a drawing of gemstone cuts

documented - record in writing, photography, or other form.

facets - one side of something many-sided, especially of a cut gem.

gem rough - raw gemstone mineral having an uneven or irregular surface; not smooth or level.

indicator minerals - minerals that indicate the presence of a specific type of mineralization, such as a gem.

Underground - beneath the surface of the ground. "miners working underground"

