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## How to find gold and gems: Introduction to gemology in school

## Gregory Bauer

Lycée d'Enseignement Général et Technologique Jean Monnet Strasbourg France (bauergregory@yahoo.fr)

Gemology is a part of geosciences usually not taught in French schools or universities, only in some private professional training centers. Teachers and students have often knowledge coming only from their non-professional activities; nevertheless a lot of jobs are linked to gemology.

In our high school we propose optional education for students in 2nd class (about 16 years old) in that they can discover gemology and mine linked jobs.

We study gemstones and how they are categorized with their crystal structure, specific gravity, hardness, and optical properties.

We study chemical composition, accumulation processes and deposit identification in their geological context. We use spectroscopic and isotopic analysis of cut gemstones to understand the atomic structure and identify its origin, which is also a factor in valuing a gemstone.

Our region is also rich in gold and silver so we see in our program precious metals deposit processes too.