Diversity in STEM Teaching

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Passport please

Technical analysis of illicit substances

Context

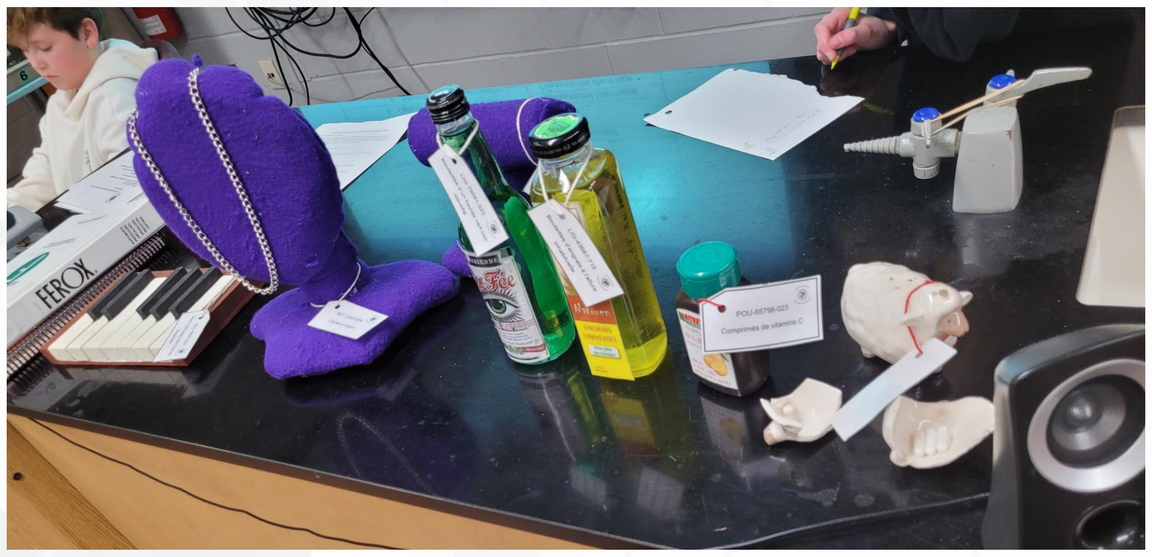
In this learning sequence, students take part in a role-play scenario simulating recruits tasked with analyzing objects seized by Canadian Customs for illicit substances. Over the course of six sessions, students explore concepts such as characteristic properties, acidity, basicity, melting point, and boiling point to determine the nature of the seized objects.

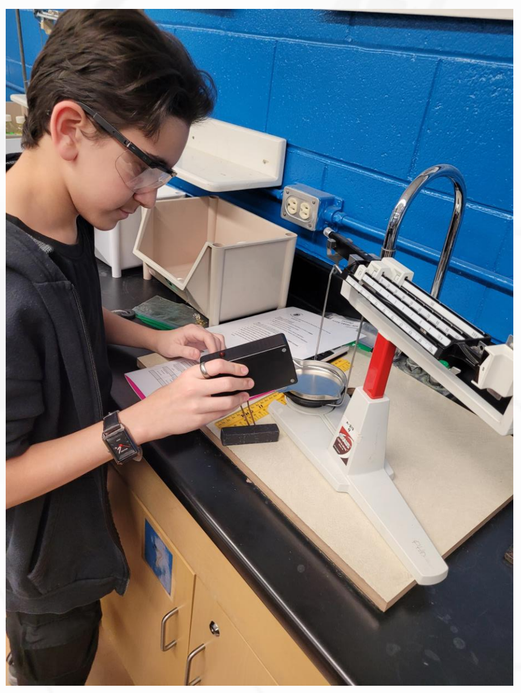
Method

Using 8 stories of seized objects, the students have to determine if these objects are legal to come in Canada, by analyzing a sample of each. We have wood, powder, liquid and metal to increase the variety of properties tested. They also read graphs to determine the melting and boiling points of seized substances.

Acknowledgement

Thanks to Julie Baillargeon and Marie-Andrée Huot, amazing lab techs, for being so willing to assist me with my projects





Conclusion : Through practical experimentation, they learn how to apply the concepts and conduct technical analyses. By engaging in hands-on activities and collaborative learning, students develop critical thinking skills and gain practical experience in analytical techniques.