

Bring Your Musical Instrument!

Activity developed at Collège Shawinigan

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This activity aims at familiarizing students with the fundamental principles involved in the production of sounds in musical instruments. It is done in teams of two. Students bring a musical instrument to class, and can compare the laws of open pipes and vibrating strings to reality. If students are more interested in other aspects, they must submit their study topic to the teacher's attention. The activity includes three separate parts:

- Presentation of a problem to be solved as part of the laboratory;
- Completion of the laboratory based on a protocol developed by students themselves;
- Presentation of results to the other members of the working group (4-6 students).

Two major points provide a unique character to this activity:

- Students are free to explore the aspect that affects them the most in the study of their musical instrument, which brings a creative approach rarely encountered in physics and science. This is why the laboratory is scheduled for four hours rather than two.
- When the laboratory assignment is complete (after 3 hours), students divide into working groups to present their results. This enables them to develop their critical judgment much more than during a traditional laboratory.