

## Adapting to Different Grade Levels

There are a total of four central activities in the Dangerous Decibels Resource Guide. While all may be adapted to various grade levels from K through 12, the activities were designed and tested with specific age ranges and developmental stages in mind:

- **All Ages:** [Good Vibrations](#) and [Bend It, Break It](#) are fun as introductory activities for all grade levels.
- **Primary Students (K-2):** Start with [Good Vibrations](#) to introduce basic concepts to the students and it is also a great station-based activity.
- **Intermediate Students (grades 3-5):** Start with [Good Vibrations](#) to introduce basic concepts to the students. [Bend It, Break It](#) was designed to give intermediate students a model to understand the fragile nature of their ear. Models are often used by scientists to understand scientific phenomena. Intermediate students are able to understand the idea of models and to practice drawing conclusions from them. Intermediate students also need this tangible, three-dimensional representation to better understand what is happening inside the ear. Teachers looking for more depth or a mathematics extension may try [Sound Measures](#) as a guided classroom activity. [How Loud is too Loud](#) is also an excellent activity for this group.
- **Middle School Students (grades 6-8):** Start with [Good Vibrations](#) to introduce basic concepts to the students. [Sound Measures](#) is a great foundation for further scientific inquiry. Students will gain enough experience and expertise to form new questions, design experiments, collect and analyze data, and draw conclusions and analysis. Both activities have applicable math components.
- **High School Students (grades 9-12):** Start with [Good Vibrations](#) to introduce basic concepts to the students. [Sound Measures](#) is a great foundation for further scientific inquiry and gives information on how to use logarithmic scales, and plot and calculate sound pressure levels. Topics of math, physical science, and biology are addressed.