

Appendix F

Alignment of Dangerous Decibels Curriculum with Science Standards and Benchmarks

Science Standards taken from National Science Education Standards:

<http://www.nap.edu/readingroom/books/nses/html/>

PHYSICAL SCIENCE STANDARDS

Properties of Objects and Materials	Grade Level	DD Activity
Objects have many observable properties, including size, weight, shape, color, temperature, and the ability to react with other substances. Those properties can be measured using tools, such as rulers, balances, and thermometers.	K - 4	Balloon Drum, Good Vibrations,
Position and Motion of Objects		
Sound is produced by vibrating objects. The pitch of the sound can be varied by changing the rate of vibration	K - 4	Balloon Drum, Good Vibrations, Shake It Break It,
Transfer of Energy		
Energy is a property of many substances and is associated with heat, light, electricity, mechanical motion, sound, nuclei, and the nature of a chemical. Energy is transferred in many ways.	5-8	Balloon Drums, A Sound Balancing Act, Shake it Break It, Shapes of Sounds, Sound Measures

LIFE SCIENCE STANDARDS

The Characteristics of Organisms		
Each plant or animal has different structures that serve different functions in growth, survival, and reproduction. For example, humans have distinct body structures for walking, holding, seeing, and talking.	K - 4	Balloon Drums, Good Vibrations, A Sound Balancing Act, Shake it Break it
Organisms and Their Environments		
Humans depend on their natural and constructed environments. Humans change environments in ways that can be either beneficial or detrimental for themselves and other organisms.	K - 4	Balloon Drums, Goof Vibrations, Shake it Break it,

LIFE SCIENCE STANDARDS CONTINUED

Structure and Function in Living Systems	Grade Level	DD Activity
Specialized cells perform specialized functions in multicellular organisms. Groups of specialized cells cooperate to form a tissue, such as a muscle. Different tissues are in turn grouped together to form larger functional units, called organs. Each type of cell, tissue, and organ has a distinct structure and set of functions that serve the organism as a whole.	5-8	Balloon Drums, A Sound Balancing Act, Shake it Break It, Shapes of Sound

Regulation and Behavior		
Behavior is one kind of response an organism can make to an internal or environmental stimulus. A behavioral response requires coordination and communication at many levels, including cells, organ systems, and whole organisms. Behavioral response is a set of actions determined in part by heredity and in part from experience.	5-8	A Sound Balancing Act, Shake it Break it, Sound Measures, How Loud is Too Loud

SCIENCE IN PERSONAL AND SOCIAL PERSPECTIVES STANDARDS

Personal Health		
Individuals have some responsibility for their own health. Students should engage in personal care--dental hygiene, cleanliness, and exercise--that will maintain and improve health. Understandings include how communicable diseases, such as colds, are transmitted and some of the body's defense mechanisms that prevent or overcome illness.	K - 4	Goof Vibrations, A Sound Balancing Act, Shake it Break it,
The potential for accidents and the existence of hazards imposes the need for injury prevention. Safe living involves the development and use of safety precautions and the recognition of risk in personal decisions. Injury prevention has personal and social dimensions.	5-8	Balloon Drums, A Sound Balancing Act, Shake it Break it, Shapes of Sound, Sound Measures, How Loud is too Loud

Changes in Environments		
Changes in environments can be natural or influenced by humans. Some changes are good, some are bad, and some are neither good nor bad. Pollution is a change in the environment that can influence the health, survival, or activities of organisms, including humans.	K - 4	Shake it Break it,

Science and Technology in Local Challenges		
People continue inventing new ways of doing things, solving problems, and getting work done. New ideas and inventions often affect other people; sometimes the effects are good and sometimes they are bad. It is helpful to try to determine in advance how ideas and inventions will affect other people.	K - 4	Shake it Break it,

**SCIENCE IN PERSONAL AND SOCIAL PERSPECTIVES
STANDARDS CONTINUED**

Risks and Benefits	Grade Level	DD Activity
Students should understand the risks associated with natural hazards (fires, floods, tornadoes, hurricanes, earthquakes, and volcanic eruptions), with chemical hazards (pollutants in air, water, soil, and food), with biological hazards (pollen, viruses, bacterial, and parasites), social hazards (occupational safety and transportation), and with personal hazards (smoking, dieting, and drinking).	5-8	A Sound Balancing Act, Shake it Break it, Shapes of Sound, Sound Measures, How Loud is too Loud
Important personal and social decisions are made based on perceptions of benefits and risks	5-8	A Sound Balancing Act, Shake it Break it, Shapes of Sound, Sound Measures, How Loud is too Loud