Specific curriculum area standards can be found at the Texas State Board of Education website, located at http://www.tea.state.tx.us/index2.aspx?id=6148. Links to the specific standards are found under the current curriculum frameworks with the PDFs specific goals within each educational category located on the page. The benchmark interpretations are those of the Dangerous Decibels® program and do not represent official state board of education interpretation or review.

THE DANGEROUS DECIBELS PROGRAM is designed to reduce the incidence of noise induced hearing loss and tinnitus by changing knowledge, attitudes, and behaviors about sound exposures. Common underlying educational messages:

1. What are the sources of dangerous sounds
2. What are the consequences of dangerous sounds
3. How do I protect myself from dangerous sounds.

RATIONALE:

The Centers for Disease Control Division of Adolescent and School Health (DASH) recognizes noise induced hearing loss as a health risk for young people. http://www.cdc.gov/healthyyouth/noise/

The U.S. national health initiative; Healthy People 2020 has indicated three related health goals for the prevention of noise induced hearing loss in youth; http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicid=20

(ENT-Nose-Throat (ENT) and Educational and Community-Based Program (ECBP) Objectives

1. **ENT-VSL-6**: Increase the use of hearing protection devices
   a. **ENT-VSL-6.2**: Adolescents aged 12 to 19 years who have ever used hearing protection devices (earplugs, earmuffs) when exposed to loud sounds or noise.

2. **ENT-VSL-7** Reduce the proportion of adolescents who have elevated hearing thresholds or audiometric notches, in high frequencies (3, 4, or 6 kHz) in both ears, signifying noise-induced hearing loss.

3. **ECBP-3**: Increase the proportion of elementary, middle, and senior high schools that have health education goals or objects that address the knowledge and skills articulated in the National Health Education Standards (high school, middle, elementary).
   a. **ECBP-3.1**: Comprehending Concepts related to health promotion and disease prevention (knowledge)
   b. **ECBP-3.2**: Accessing valid information and health promoting products and services (skills)
   c. **ECBP-3.3**: Advocating for personal, family, and community health (skills)
   d. **ECBP-3.5**: Practicing health-enhancing behaviors and reducing health risks (skills)
   e. **ECBP-3.6**: Using goal-setting and decision-making skills to enhance health (skills)
   f. **ECBP-3.7**: Using interpersonal communication skills to enhance health (skills)
4. **ECBP–4**: *Increase the proportion of elementary, middle, and senior high schools that provide school health education to promote personal health and wellness in the following areas: hand washing or hand hygiene; oral health; growth and development; sun safety and skin cancer prevention; benefits of rest and sleep; ways to prevent vision and hearing loss; and the importance of health screenings and checkups.*
   a. **ECBP–4.6**: Ways to prevent vision and hearing loss

**DANGEROUS DECIBELS (DD) PROGRAM CONTENT:**

**What is Sound?**

**DD Educational Objectives:** Students will know that:
   A. Sound is a result of vibrations
   B. Sound vibrations are called sound waves
   C. You cannot have sound without vibrations
   D. The energy in sound is what can cause damage to our ears

**Texas Educational Benchmarks:**

A. Science (K)
   o (6) Force, motion, and energy. The student knows that energy, force, and motion are related and are a part of their everyday life.
      ▪ (A) Use the five senses to explore different forms of energy such as light, heat, and sound
      ▪ (D) Observe and describe the ways that objects can move such as in a straight line, zigzag, up and down, back and forth, round and round, and fast and slow.

B. Science (1)
   o (6) Force, motion, and energy. The student knows that force, motion, and energy are related and are a part of everyday life.
      ▪ (A) Identify and discuss how different forms of energy such as light, heat, and sound are important to everyday life

C. Science (2)
   o (6) Force, motion, and energy. The student knows that forces cause change and energy exists in many forms.
      ▪ (A) Investigate the effects on an object by increasing or decreasing amounts of life, heat, and sound energy.

D. Science (3)
   o (6) Force, motion, and energy. The student knows that forces cause change and that energy exists in many forms.
      ▪ (A) Explore different forms of energy, including mechanical, light, sound, and heat/thermal in everyday life.
      ▪ (B) Demonstrate and observe how position and motion can be changed by pushing and pulling objects to show work being done such as swings, balls, pulleys, and wagons.

E. Science (4)
   o (6) Force, motion, and energy. The student knows that energy exists in many forms and can be observed in cycles, patterns, and systems.
      ▪ (A) Differentiate among forms of energy, including mechanical, sound, electrical, light, and heat/thermal

F. Science (5)
(6) Force, motion, and energy. The student knows that energy occurs in many forms and can be observed in cycles, patterns, and the systems.
  ▪ (A) Explore the uses of energy, including mechanical, light, thermal, electrical, and sound energy
  ▪ (B) Demonstrate that the flow of electrical energy in circuits requires a complete path through which an electric current can pass and produce light, heat, and sound
  ▪ (D) Design an experiment that tests the effect of force on an object.

G. Science (6)
  (8) Force, motion, and energy. The student knows force and motion are related to potential and kinetic energy.
  ▪ (B) Identify and describe the changes in position, direction, and speech of an object when acted upon by unbalanced forces

H. Science (7)
  (7) Force, motion, and energy. The student knows that there is a relationship among force, motion, and energy.
  ▪ (A) Contrast situations where work is done with different amounts of force to situations where no work is done such as moving a box with a ramp and without a ramp, or standing still
  ▪ (B) Illustrate the transformation of energy within an organism such as the transfer from chemical energy to heat and thermal energy in digestion

I. Science (8)
  (6) Force, motion, and energy. The student knows that there is a relationship among force, motion, and energy.
  ▪ (A) Demonstrate and calculate how unbalanced forces change the speed for direction of an object’s motion
  ▪ (B) Differentiate between speed, velocity, and acceleration
  ▪ (C) Investigate and describe applications of Newton’s law of inertia, law of force and acceleration, and law of action-reaction

J. Science (High School Physics)
  (7) Science concepts. The student knows the characteristics and behavior of waves
  ▪ (A) Examine and describe oscillatory motion and wave propagation in various types of media
  ▪ (B) Investigate and analyze characteristics of waves, including velocity, frequency, amplitude, and wavelength, and calculate using the relationship between wave speed, frequency, and wavelength
  ▪ (C) Compare characteristics and behaviors of transverse waves, including electromagnetic waves and the electromagnetic spectrum, and characteristics and behaviors of longitudinal waves, including sound waves
  ▪ (D) Investigate behaviors of waves, including reflection, refraction, diffraction, interferences, resonance, and the Doppler effect
  ▪ (F) Describe the role of wave characteristics and behaviors in medical and industrial applications

How Do We Hear?

DD Educational Objective:
1. Students will have a general understanding of how sound waves and vibrations travel through the parts of the ear to enable hearing.
Texas Educational Benchmarks:

A. Science (K)
   o (6) Force, motion, and energy. The student knows that energy, force, and motion are related and are a part of their everyday life.
     ▪ (A) Use the five senses to explore different forms of energy such as light, heat, and sound
     ▪ (B) Explore interactions between magnets and various materials
     ▪ (D) Observe and describe the ways that objects can move such as in a straight line, zigzag, up and down, back and forth, round and round, and fast and slow.

B. Health Education (K)
   o (4) Health information. The student knows the basic structures of the human body and how they relate to personal health.
     ▪ (A) Name the five senses
     ▪ (B) Name major body parts and their functions

C. Science (1)
   o (6) Force, motion, and energy. The student knows that force, motion, and energy are related and are a part of everyday life.
     ▪ (A) Identify and discuss how different forms of energy such as light, heat, and sound are important to everyday life

D. Health Education (1)
   o (4) Health information. The student understands the basic structure and functions of the human body and how they relate to personal health throughout the life span.
     ▪ (A) Identify and demonstrate use of the five senses
     ▪ (B) Identify major body structures and organs and describes their basic functions

E. Science (2)
   o (6) Force, motion, and energy. The student knows that forces cause change and energy exists in many forms.
     ▪ (A) Investigate the effects on an object by increasing or decreasing amounts of life, heat, and sound energy.

F. Health Education (2)
   o (3) Health information. The student understands the basic structures and functions of the human body and how they relate to personal health throughout the life span.
     ▪ (C) Identify the major systems of the body

G. Science (3)
   o (6) Force, motion, and energy. The student knows that forces cause change and that energy exists in many forms.
     ▪ (A) Explore different forms of energy, including mechanical, light, sound, and heat/thermal in everyday life.
     ▪ (B) Demonstrate and observe how position and motion can be changed by pushing and pulling objects to show work being done such as swings, balls, pulleys, and wagons.

H. Health Education (3)
   o (4) Health information. The student names the basic structures and functions of the human body and explains how they relate to personal health throughout the life span.
     ▪ (B) Name and locate major components of the body systems

I. Science (4)
   o (6) Force, motion, and energy. The student knows that energy exists in many forms and can be observed in cycles, patterns, and systems.
(A) Differentiate among forms of energy, including mechanical, sound, electrical, light, and heat/thermal

J. Health Education (4)
   (4) Health information. The student names the basic structures and functions of the human body and explains how they relate to personal health throughout the life span
   (B) Describe the basic function of major body systems

K. Science (5)
   (6) Force, motion, and energy. The student knows that energy occurs in many forms and can be observed in cycles, patterns, and the systems.
   (A) Explore the uses of energy, including mechanical, light, thermal, electrical, and sound energy
   (B) Demonstrate that the flow of electrical energy in circuits requires a complete path through which an electric current can pass and produce light, heat, and sound
   (D) Design an experiment that tests the effect of force on an object.

L. Heath Education (5)
   (2) Health information. The student recognizes the basic structures and functions of the human body and how they relate to personal health throughout the life span.
   (A) Describe the structure, functions, and interdependence of major body systems

M. Science (6)
   (8) Force, motion, and energy. The student knows force and motion are related to potential and kinetic energy.
   (B) Identify and describe the changes in position, direction, and speech of an object when acted upon by unbalanced forces

N. Health Education (6)
   (2) Health information. The student recognizes ways that body structure and function relate to personal health throughout the life span.
   (A) Analyze the relationships among the body systems.

O. Science (7)
   (7) Force, motion, and energy. The student knows that there is a relationship among force, motion, and energy.
   (A) Contrast situations where work is done with different amounts of force to situations where no work is done such as moving a box with a ramp and without a ramp, or standing still
   (B) Illustrate the transformation of energy within an organism such as the transfer from chemical energy to heat and thermal energy in digestion

P. Science (8)
   (6) Force, motion, and energy. The student knows that there is a relationship among force, motion, and energy
   (A) Demonstrate and calculate how unbalanced forces change the speed for direction of an object’s motion
   (B) Differentiate between speed, velocity, and acceleration
   (C) Investigate and describe applications of Newton’s law of inertia, law of force and acceleration, and law of action-reaction

Q. Science (High School Physics)
   (7) Science concepts. The student knows the characteristics and behavior of waves
   (A) Examine and describe oscillatory motion and wave propagation in various types of media
(B) Investigate and analyze characteristics of waves, including velocity, frequency, amplitude, and wavelength, and calculate using the relationship between wave speed, frequency, and wavelength

(C) Compare characteristics and behaviors of transverse waves, including electromagnetic waves and the electromagnetic spectrum, and characteristics and behaviors of longitudinal waves, including sound waves

(D) Investigate behaviors of waves, including reflection, refraction, diffraction, interferences, resonance, and the Doppler effect

(F) Describe the role of wave characteristics and behaviors in medical and industrial applications.

How Do We Damage Our Hearing?

DD Educational Objective:
1. Students will know how loud sounds create strong vibrations that can permanently damage hair cells in the cochlea.

Texas Educational Benchmarks:
A. Science (K)
   o (6) Force, motion, and energy. The student knows that energy, force, and motion are related and are a part of their everyday life.
     ▪ (A) Use the five senses to explore different forms of energy such as light, heat, and sound

B. Health Education (K)
   o (2) Health behaviors. The student understands that behaviors result in healthy or unhealthy conditions throughout the life span.
     o (D) Identify ways to avoid harming oneself or another person.

C. Science (1)
   o (6) Force, motion, and energy. The student knows that force, motion, and energy are related and are a part of everyday life.
     ▪ (A) Identify and discuss how different forms of energy such as light, heat, and sound are important to everyday life

D. Health Education (1)
   o (2) Health behaviors. The student understands that behaviors result in healthy or unhealthy conditions throughout the life span.
     ▪ (A) Identify and use protective equipment to prevent injury

E. Science (2)
   o (6) Force, motion, and energy. The student knows that forces cause change and energy exists in many forms.
     ▪ (A) Investigate the effects on an object by increasing or decreasing amounts of life, heat, and sound energy.
   o (1) Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following home and safety procedures.
     ▪ (B) Describe the importance of safe practices.

F. Health Education (2)
   o (5) Health Information
     ▪ (C) Identify personal responsibilities as a family member in promoting and practicing health behaviors.

G. Science (3)
(6) Force, motion, and energy. The student knows that forces cause change and that energy exists in many forms.
   - (A) Explore different forms of energy, including mechanical, light, sound, and heat/thermal in everyday life.

H. Health Education (3)
   - (11) Personal/interpersonal skills. The student recognizes critical-thinking, decision-making, goal-setting, and problem-solving skills for making health-promoting decisions.
     - (C) Explain the positive and negative consequences of making a health-related choice

I. Science (4)
   - (6) Force, motion, and energy. The student knows that energy exists in many forms and can be observed in cycles, patterns, and systems.
     - (D) Design an experiment to test the effect of force on an object such as a push or a pull, gravity, friction, or magnetism

J. Health Education (4)
   - (4) Health information. The student names the basic structures and functions of the human body and explains how they relate to personal health throughout the life span.
     - (A) Describe how health behaviors affect the body systems

K. Science (5)
   - (6) Force, motion, and energy. The student knows that energy occurs in many forms and can be observed in cycles, patterns, and the systems.
     - (D) Design an experiment that tests the effect of force on an object.

L. Science (6)
   - (8) Force, motion, and energy. The student knows force and motion are related to potential and kinetic energy.
     - (B) Identify and describe the changes in position, direction, and speech of an object when acted upon by unbalanced forces

M. Science (7)
   - (7) Force, motion, and energy. The student knows that there is a relationship among force, motion, and energy.
     - (A) Contrast situations where work is done with different amounts of force to situations where no work is done such as moving a box with a ramp and without a ramp, or standing still

N. Health Education (High School)
   - (3) Health information. The student comprehends and utilizes concepts relating to health promotion and disease prevention throughout the life span.
     - (C) Distinguish risk factors associated with communicable and non-communicable diseases.
   - (6) Health behaviors. The student accesses the relationship between body structure and function and personal health throughout the life span.
     - (A) Examine the effects of health behaviors on the body system.
     - (B) Relate the importance of early detection and warning signs that prompts individuals of all ages to seek health care
What’s that Sound?

DD Educational Objectives:
1. Students will understand one of the consequences of being exposed to dangerous sound levels.
2. Students will understand what it is like to try to identify sounds with a high frequency hearing loss.

Texas Educational Benchmarks:

A. Science (K)
   o (6) Force, motion, and energy. The student knows that energy, force, and motion are related and are a part of their everyday life.
      ▪ (A) Use the five senses to explore different forms of energy such as light, heat, and sound

B. Health Education (K)
   o (2) Health behaviors. The student understands that behaviors result in healthy or unhealthy conditions through the life span.
      ▪ (D) Identify ways to avoid harming oneself or another person.

C. Science (1)
   o (6) Force, motion, and energy. The student knows that force, motion, and energy are related and are a part of everyday life.
      ▪ (A) Identify and discuss how different forms of energy such as light, heat, and sound are important to everyday life

D. Health Education (1)
   o (2) Health behaviors. The student understands that behaviors result in healthy or unhealthy conditions throughout the life span.
      ▪ (A) Identify and use protective equipment to prevent injury

E. Science (2)
   o (1) Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following home and safety procedures.
      ▪ (B) Describe the importance of safe practices.

F. Health Education (2)
   o (2) Health behaviors. The student understands that safe, unsafe, and/or harmful behaviors result in positive and negative consequences throughout the lifespan.
      ▪ (B) Identify ways to avoid deliberate and accidental injuries

G. Science (3)
   o (6) Force, motion, and energy. The student knows that forces cause change and that energy exists in many forms.
      ▪ (A) Explore different forms of energy, including mechanical, light, sound, and heat/thermal in everyday life.

H. Health Education (3)
   o (11) Personal/interpersonal skills. The student recognizes critical-thinking, decision-making, goal-setting, and problem-solving skills for making health-promoting decisions.
      ▪ (C) Explain the positive and negative consequences of making a health-related choice

I. Health Education (4)
   o (4) Health information. The student names the basic structures and functions of the human body and explains how they relate to personal health throughout the life span
      ▪ (A) Describe how health behaviors affect the body systems
J. Science (5)
   o 6) Force, motion, and energy. The student knows that forces cause change and that energy exists in many forms.
      ▪ (A) Explore different forms of energy, including mechanical, thermal, electrical, and sound energy

K. Health Education (5)
   o (5) Health behaviors. The student comprehends behaviors that reduce health risks throughout the life span.
      ▪ (E) Demonstrate strategies for preventing and responding to deliberate and accidental injuries

L. Health Education (6)
   o (3) Health information. The student comprehends and utilizes concepts relating to health promotion and disease prevention.
      ▪ (C) List non-communicable and hereditary diseases and respective prevention and treatment techniques.

M. Health Education (7&8)
   o (3) Health information. The student comprehends and utilizes concepts relating to health promotion and disease prevention throughout the life span.
      ▪ (C) Distinguish risk factors associated with communicable and non-communicable diseases.

N. Health Education (High School)
   o Health behaviors. The student accesses the relationship between body structure and function and personal health throughout the life span.
      ▪ (A) Examine the effects of health behaviors on the body system

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**How Loud is Too Loud?**

**DD Educational Objectives:**
1. Students begin to associate different sounds with decibel levels.
2. Students identify which method of hearing protection is the best to practice when exposed to dangerous decibels from different sources.
3. Students identify and discuss the social norms and challenges associated with practicing hearing protection.

**Texas Educational Benchmarks:**

A. Science (K)
   o (1) Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following home and school safety procedures and uses environmentally appropriate and responsible practices.
      ▪ (A) Identify and demonstrate safe practices as described in the Texas Safety Standards during classroom and outdoor investigations, including wearing safety goggles, washing hands, and using materials appropriately.
      ▪ (B) Discuss the importance of safe practices to keep self and others safe and healthy.

B. Health Education (K)
   o (2) Health behaviors. The student understands that behaviors result in healthy or unhealthy conditions through the life span.
      ▪ (D) Identify ways to avoid harming oneself or another person.

C. Health Education (1)
(2) Health behaviors. The student understands that behaviors result in healthy or unhealthy conditions throughout the life span.
   - (A) Identify and use protective equipment to prevent injury.

D. Science (2)
   - (6) Force, motion, and energy. The student knows that forces cause change and energy exists in many forms.
     - (A) Investigate the effects on an object by increasing or decreasing amounts of life, heat, and sound energy.
   - (1) Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following home and safety procedures.
     - (B) Describe the importance of safe practices.

E. Health Education (2)
   - (2) Health behaviors. The student understands that safe, unsafe, and/or harmful behaviors result in positive and negative consequences throughout the lifespan.
     - (B) Identify ways to avoid deliberate and accidental injuries.
   - (3) Health behaviors. The student understands the basic structures and functions of the human body and how they relate to personal health throughout the life span.
     - (A) Describe behaviors that protect the body structure and organs such as wearing a seat belt and wearing a bicycle helmet.

   - (5) Health Information
     - (C) Identify personal responsibilities as a family member in promoting and practicing health behaviors.

   - (8) Influencing factors. The student understands how relationships influence personal health.
     - (A) Describe how friends can influence a person’s health.

   - (9) Personal/interpersonal skills. The student comprehends the skills necessary for building and maintaining healthy relationships.
     - (C) Demonstrate refusal skills.

F. Science (3)
   - (1) Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following school and home safety procedures and environmentally appropriate practices.
     - (A) Demonstrate safe practices as described in the Texas Safety Standards during classroom and outdoor investigations, including observing a schoolyard habitat.

   - (4) Scientific investigation and reasoning.
     - (B) Use safety equipment as appropriate, including safety goggles and gloves.

G. Health Education (3)
   - (2) Health behaviors. The student recognizes and performs behaviors that reduce health risks throughout the life span.
     - (E) Describe the importance of taking personal responsibility for reducing hazards, avoiding accidents, and preventing accidental injuries.

   - (8) Personal/interpersonal skills. The student understands how relationships can positively and negatively influence individual and community health.
     - (A) Distinguish between positive and negative peer pressures and their effects on personal health behaviors.

   - (11) Personal/interpersonal skills. The student recognizes critical-thinking, decision-making, goal-setting, and problem-solving skills for making health-promoting decisions.
     - (C) Explain the positive and negative consequences of making a health-related choice.
- (E) Practice assertive communication and refusal skills

H. Science (4)
  - (2) Scientific investigation and reasoning. The student uses scientific inquiry methods
during laboratory and outdoor investigations.
    - (A) Plan and implement descriptive investigations, including asking well-defined
      questions, making inferences, and selecting and using appropriate equipment or
      technology to answer his/her questions.

I. Health Education (4)
  - (4) Health information. The student names the basic structures and functions of the
    human body and explains how they relate to personal health throughout the life span
    - (A) Describe how health behaviors affect the body systems
  - (7) Influencing factors. The student comprehends ways in which media and technology
can influence individual and community health.
    - (A) Explain how the media can influence health behaviors
  - (8) Personal/interpersonal skills. The student understands how relationships can
    positively and negatively influence individual and community health.
    - (B) Describe the importance of being a positive role model for health

J. Science (5)
  - (2) Scientific investigation and reasoning. The student uses scientific inquiry methods
during laboratory and outdoor investigations.
    - (A) Describe, plan, and implement simple experimental investigations testing one

K. Health Education (5)
  - (4) Health behaviors. The student recognizes behaviors that prevent disease and speed
    recovery from illness
    - (A) Explain how to maintain the healthy status of the body systems such as
      avoiding smoking to protect the lungs
  - (5) Health behaviors. The student comprehends behaviors that reduce health risks
    throughout the life span.
    - (E) Demonstrate strategies for preventing and responding to deliberate and
      accidental injuries
  - (7) Influencing factors. The student comprehends ways in which media and technology
    influence individual and community health.
    - (B) Identify the use of health-related technology in the school such as audiometry
      and the Internet
  - (9) Personal/interpersonal skills. The student demonstrates critical-thinking, decision-
    making, goal-setting, and problem-solving skills for making healthy decisions.
    - (B) Assess the role of assertiveness, refusal skills, and peer pressure on decision
      making and problem solving

L. Science (6)
  - (2) Scientific investigation and reasoning. The student uses scientific inquiry methods
during laboratory and field investigations.
    - (A) Plan and implement comparative and descriptive investigations by making
      observations, asking well-defined questions, and using appropriate equipment
      and technology

M. Health Education (6)
  - (3) Health information. The student comprehends and utilizes concepts relating to
    health promotion and disease prevention.
    - (C) List non-communicable and hereditary diseases and respective prevention
      and treatment techniques.
(4) Health information. The student comprehends ways of researching, accessing, and analyzing health information.
   - (A) List ways to evaluate health products, practices and services, such as sunblocks, dietary aides, and over-the-counter medications.

(11) Personal/interpersonal skills. The student analyzes information and applies critical-thinking, decision-making, goal-setting and problem-solving skills for making health-promoting decisions.
   - (C) Explain the impact of peer pressure on decision making

N. Science (7)
   (4) Science investigation and reasoning. The student knows how to use a variety of tools and safety equipment to conduct science inquiry
      - (B) Use preventative safety equipment

O. Health Education (7&8)
   (3) Health information. The student comprehends and utilizes concepts relating to health promotion and disease prevention throughout the life span.
      - (C) Distinguish risk factors associated with communicable and non-communicable diseases.

   (5) Health information. The student engages in behaviors that reduce health risks throughout the life span.
      - (A) Analyze and demonstrate strategies for preventing and responding to deliberate and accidental injuries

(12) Personal/interpersonal skills. The student analyzes information and applies critical-thinking, decision-making, goal-setting and problem-solving skills for making health-promoting decisions.
      - (D) Examine the effects of peer pressure on decision making.

P. Science (8)
   (4) Science investigation and reasoning. The student knows how to use a variety of tools and safety equipment to conduct science inquiry
      - (B) Use preventative safety equipment

Q. Health Education (High School)
   (3) Health information. The student comprehends and utilizes concepts relating to health promotion and disease prevention throughout the life span.
      - (C) Distinguish risk factors associated with communicable and non-communicable diseases.

   (7) Health behaviors. The student analyzes the relationship between unsafe behaviors and personal health and develops strategies to promote resiliency throughout the life span
      - (F) Analyze strategies for preventing and responding to deliberate and accidental injuries

   (16) Personal/interpersonal skills. The student synthesizes information and applies critical-thinking, decision-making, and problem-solving skills for making health-promoting decisions throughout the life span
      - (A) Identify decision-making skills that promote the individual, family, and community health
Measuring Decibels with Sound Level Meters

DD Educational Objectives:
1. Students will measure sound intensities with a sound level meter.
2. Students learn how effective walking away from dangerous sound levels can be to reduce their exposure to dangerous sound.

Texas Educational Benchmarks:
A. Science (K)
   o (1) Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following home and school safety procedures and uses environmentally appropriate and responsible practices.
      ▪ (A) Identify and demonstrate safe practices as described in the Texas Safety Standards during classroom and outdoor investigations, including wearing safety goggles, washing hands, and using materials appropriately.
      ▪ (B) Discuss the importance of safe practices to keep self and others safe and healthy.
   o (2) Scientific investigation and reasoning. The student develops abilities to ask questions and seek answers in classroom and outdoor investigations.
      ▪ (C) Collect data and make observations using simple equipment such as hand lenses, primary balances, and non-standard measurement tools.
   o (3) Scientific investigation and reasoning. The student uses age-appropriate tools and models to investigate the natural world.
      ▪ (B) Uses senses as a tool of observation to identify properties and patterns of organisms, objects, and events in the environment.

B. Health Education (K)
   o (2) Health behaviors. The student understands that behaviors result in healthy or unhealthy conditions through the life span.
      ▪ (D) Identify ways to avoid harming oneself or another person.

C. Health Education (1)
   o (10) Personal/interpersonal skills. The student comprehends the skills necessary for building and maintaining healthy relationships.
      ▪ (B) Practice refusal skills to avoid and resolve conflicts.

D. Science (2)
   o (1) Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following home and safety procedures.
      ▪ (B) Describe the importance of safe practices.
   o (2) Scientific investigation and reasoning. The student develops abilities necessary to do scientific inquiry in classroom and outdoor investigations.
      ▪ (C) Collect data from observations using simple equipment such as hand lenses, primary balances, thermometers, and non-standard measurement tools.

E. Health Education (2)
   o (2) Health behaviors. The student understands that safe, unsafe, and/or harmful behaviors result in positive and negative consequences throughout the lifespan.
      ▪ (B) Identify ways to avoid deliberate and accidental injuries.

F. Science (3)
1. Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following school and home safety procedures and environmentally appropriate practices.
   - (A) Demonstrate safe practices as described in the Texas Safety Standards during classroom and outdoor investigations, including observing a schoolyard habitat.

2. Scientific investigation and reasoning. The student knows how to use a variety of tools, materials, equipment, and models to conduct science inquiry.
   - (A) Collect, record, and analyze information using tools
   - (B) Use safety equipment as appropriate, including safety goggles and gloves

G. Science (4)

3. Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and outdoor investigations.
   - (A) Plan and implement descriptive investigations, including asking well-defined questions, making inferences, and selecting and using appropriate equipment or technology to answer his/her questions.

4. Scientific investigation and reasoning. The student knows how to use a variety of tools, materials, equipment, and models to conduct science inquiry.
   - (A) Collect, record, and analyze information using tools

H. Health Education (4)

5. Personal/interpersonal skills. The student understands how relationships can positively and negatively influence individual and community health.
   - (B) Describe the importance of being a positive role model for health

6. Personal/interpersonal skills. The student demonstrates critical-thinking, decision-making, goal-setting, and problem-solving skills for making health-promoting decisions.
   - (E) Describe steps in decision making and problem solving

I. Science (5)

7. Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and outdoor investigations.
   - (A) Describe, plan, and implement simple experimental investigations testing one variable
   - (C) Collect information by detailed observations and accurate measuring

8. Scientific investigation and reasoning. The student knows how to use a variety of tools, materials, equipment, and models to conduct science inquiry.
   - (A) Collect, record, and analyze information using tools
   - (B) Use safety equipment, including safety goggles and gloves.

J. Health Education (5)

9. Personal/interpersonal skills. The student demonstrates critical-thinking, decision-making, goal-setting, and problem-solving skills for making healthy decisions.
   - (B) Assess the role of assertiveness, refusal skills, and peer pressure on decision making and problem solving

K. Science (6)

10. Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations.
    - (A) Plan and implement comparative and descriptive investigations by making observations, asking well-defined questions, and using appropriate equipment and technology

11. Scientific investigation and reasoning. The student knows how to use a variety of tools and safety equipment to conduct science inquiry.
    - (A) Use appropriate tools to collect, record and analyze information
L. Health Education (6)
   o 11) Personal/interpersonal skills. The student analyzes information and applies critical-
        thinking, decision-making, goal-setting and problem-solving skills for making health-
        promoting decisions.
        ▪ (B) Demonstrate the use of refusal skills in unsafe situations

M. Science (7)
   o 2) Scientific investigation and reasoning. The student uses scientific inquiry methods
      during laboratory and field investigations.
      ▪ (A) Plan and implement comparative and descriptive investigations by making
         observations, asking well-defined questions, and using appropriate equipment
         and technology
   o 4) Scientific investigation and reasoning. The student knows how to use a variety of tools
      and safety equipment to conduct science inquiry.
      ▪ (A) Use appropriate tools to collect, record and analyze information

N. Health Education (7&8)
   o 12) Personal/interpersonal skills. The student analyzes information and applies critical-
        thinking, decision-making, goal-setting and problem-solving skills for making health-
        promoting decisions.
        ▪ (C) Appraise the risks and benefits of decision-making about personal health

O. Science (8)
   o 2) Scientific investigation and reasoning. The student uses scientific inquiry methods
      during laboratory and field operations.
      ▪ (A) Plan and implement comparative and descriptive investigations by making
         observations, asking well-defined questions, formulating testable hypotheses,
         and using appropriate equipment and technology.
   o 4) Science investigation and reasoning. The student knows how to use a variety of tools
      and safety equipment to conduct science inquiry.
      ▪ (A) Use appropriate tools to collect, record, and analyze information

P. Health Education (High School)
   o 13) Personal/interpersonal skills. The student analyzes, designs, and evaluates
        communication skills for building and maintaining healthy relationships throughout the
        life span
        ▪ (E) Demonstrate refusal skills
   o 16) Personal/interpersonal skills. The student synthesizes information and applies
        critical-thinking, decision-making, and problem-solving skills for making health-promoting
        decisions throughout the life span
        ▪ (A) Identify decision-making skills that promote the individual, family, and
           community health

How to use Earplugs

DD Educational Objectives:
1. Students will observe the proper technique and fitting of preformed earplugs
2. Optional: Students will have the opportunity to practice fitting earplugs in their ears.

Texas Educational Benchmarks:
A. Science (K)
1. Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following home and school safety procedures and uses environmentally appropriate and responsible practices.
   - (A) Identify and demonstrate safe practices as described in the Texas Safety Standards during classroom and outdoor investigations, including wearing safety goggles, washing hands, and using materials appropriately.
   - (B) Discuss the importance of safe practices to keep self and others safe and healthy.

B. Health Education (K)
   - (2) Health behaviors. The student understands that behaviors result in healthy or unhealthy conditions throughout the life span.
     - (D) Identify ways to avoid harming oneself or another person.

C. Science (1)
   - 1) Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following home and school safety procedures and uses environmentally appropriate and responsible practices.
     - (A) Identify and demonstrate safe practices as described in the Texas Safety Standards during classroom and outdoor investigations, including wearing safety goggles, washing hands, and using materials appropriately.

D. Health Education (1)
   - (2) Health behaviors. The student understands that behaviors result in healthy or unhealthy conditions throughout the life span.
     - (A) Identify and use protective equipment to prevent injury.

E. Science (2)
   - 1) Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following home and school safety procedures and uses environmentally appropriate and responsible practices.
     - (A) Identify and demonstrate safe practices as described in the Texas Safety Standards during classroom and outdoor investigations, including wearing safety goggles, washing hands, and using materials appropriately.

F. Health Education (2)
   - (2) Health behaviors. The student understands that safe, unsafe, and/or harmful behaviors result in positive and negative consequences throughout the life span.
     - (B) Identify ways to avoid deliberate and accidental injuries.
   - (3) Health information. The student understands the basic structures and functions of the human body and how they relate to personal health throughout the life span.
     - (A) Describe behaviors that protect the body structure and organs such as wearing a seat belt and wearing a bicycle helmet.

G. Science (3)
   - (1) Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following school and home safety procedures and environmentally appropriate practices.
     - (A) Demonstrate safe practices as described in the Texas Safety Standards during classroom and outdoor investigations, including observing a schoolyard habitat.
   - (4) Scientific investigation and reasoning.
     - (A) Collect, record, and analyze information using tools.
     - (B) Use safety equipment as appropriate, including safety goggles and gloves.

H. Health Education (3)
(2) Health behaviors. The student understands that safe, unsafe, and/or harmful behaviors result in positive and negative consequences throughout the life span.
   - (E) Describe the importance of taking personal responsibility for reducing hazards, avoiding accidents, and preventing accidental injuries.

I. Science (4)
   - (1) Scientific investigation and reasoning. The student conducts classroom and outdoor investigations, following home and school safety procedures and environmentally appropriate and ethical practices.
     - (A) Demonstrate safe practices and the use of safety equipment as described by the Texas Safety Standards during classroom and outdoor investigations.
   - (4) Scientific investigation and reasoning. The student knows how to use a variety of tools, materials, equipment, and models to conduct science inquiry.
     - (B) Use safety equipment as appropriate, including safety goggles and gloves.

J. Science (5)
   - (1) Scientific investigation and reasoning. The student conducts classroom and outdoor investigations, following home and school safety procedures and environmentally appropriate and ethical practices.
     - (A) Demonstrate safe practices and the use of safety equipment as described in the Texas Safety Standards during classroom and outdoor investigations.

K. Health Education (5)
   - (4) Health behaviors. The student recognizes behaviors that prevent disease and speed recovery from illness.
     - (A) Explain how to maintain the healthy status of body systems such as avoiding smoking to protect the lungs.
   - (5) Health behaviors. The student comprehends behaviors that reduce health risks throughout the life span.
     - (E) Demonstrate strategies for preventing and responding to deliberate and accidental injuries.

L. Science (6)
   - (1) Scientific investigation and reasoning. The student, for at least 40% of instructional time, conducts laboratory and field investigations following safety procedures and environmentally appropriate and ethical practices.
     - (A) Demonstrate safety practices during laboratory and field investigations as outlined in the Texas Safety Standards.
   - (4) Scientific investigation and reasoning. The student knows how to use a variety of tools and safety equipment to conduct science inquiry.
     - (B) Use preventative safety equipment.

M. Health Education (6)
   - (4) Health information. The student comprehends ways of researching, accessing, and analyzing health information.
     - (A) List ways to evaluate health products, practices and services, such as sun blocks, dietary aides, and over-the-counter medications.

N. Science (7)
   - (1) Scientific investigation and reasoning. The student, for at least 40% of instructional time, conducts laboratory and field investigations following safety procedures and environmentally appropriate and ethical practices.
     - (A) Demonstrate safety practices during laboratory and field investigations as outlined in the Texas Safety Standards.
   - (4) Scientific investigation and reasoning.
     - (B) Use preventative safety equipment.
O. Health Education (7&8)
   o (5) Health behaviors. The student engages in behaviors that reduce health risks throughout the life span.
      (A) Analyze and demonstrate strategies for preventing and responding to deliberate and accidental injuries

P. Science (8)
   o (4) Science investigation and reasoning. The student knows how to use a variety of tools and safety equipment to conduct science inquiry
      (B) Use preventative safety equipment

Q. Science (High School Physics)
   o (2) Scientific processes. The student conducts investigations, for at least 40% of instructional time, using safe, environmentally appropriate, and ethical practices. These investigations must involve actively obtaining and analyzing data with physical equipment, but may also involve experimentation in a simulated environment as well as field observations that extend beyond the classroom.
      (A) Demonstrate safe practices during laboratory and field investigations

R. Health Education (High School)
   o (2) Health information. The student is health literate in disease prevention and health promotion throughout the life span
      (C) Develop and analyze strategies related to the prevention of communicable and non-communicable diseases.
   o (16) Personal/interpersonal skills. The student synthesizes information and applies critical-thinking, decision-making, and problem-solving skills for making health-promoting decisions throughout the life span
      (A) Identify decision-making skills that promote the individual, family, and community health

Rock Your World: Time to Act!

DD Educational Objectives:
1. To bring awareness to peer pressure that a person can encounter when practicing smart hearing.
2. Students practice making personal decisions on individual behavior in social settings and discuss their answers with the class and educator.

Texas Educational Benchmarks:
A. Health Education (K)
   o (9) Personal/interpersonal skills. The student comprehends the skills necessary for building and maintaining healthy relationships.
      (A) Identify and use refusal skills to avoid unsafe behavior situations such as saying no in unsafe situations and then telling an adult if he/she is threatened.

B. Health Education (1)
   o (10) Personal/interpersonal skills. The student comprehends the skills necessary for building and maintaining healthy relationships.
      (B) Practice refusal skills to avoid and resolve conflicts

C. Health Education (2)
   o (5) Health Information
      (C) Identify personal responsibilities as a family member in promoting and practicing health behaviors.
(8) Influencing factors. The student understands how relationships influence personal health.
   ▪ (A) Describe how friends can influence a person’s health

(9) Personal/interpersonal skills. The student comprehends the skills necessary for building and maintaining healthy relationships.
   ▪ (C) Demonstrate refusal skills.

D. Health Education (3)
(2) Health behaviors. The student recognizes and performs behaviors that reduce health risks throughout the life span.
   ▪ (E) Describe the importance of taking personal responsibility for reducing hazards, avoiding accidents, and preventing accidental injuries.

(8) Influencing factors. The student understands how relationships can positively and negatively influence individual and community health.
   ▪ (A) Distinguish between positive and negative peer pressures and their effects on personal health behaviors

(9) Personal/interpersonal skills. The student comprehends the skills necessary for building and maintaining healthy relationships
   ▪ (F) Demonstrate refusal skills.

(11) Personal/interpersonal skills. The student recognizes critical-thinking, decision-making, goal-setting, and problem-solving skills for making health-promoting decisions.
   ▪ (C) Explain the positive and negative consequences of making a health-related choice
   ▪ (E) Practice assertive communication and refusal skills

E. Health Education (4)
(7) Influencing factors. The student comprehends ways in which media and technology can influence individual and community health.
   ▪ (A) Explain how the media can influence health behaviors

(8) Personal/interpersonal skills. The student understands how relationships can positively and negatively influence individual and community health.
   ▪ (B) Describe the importance of being a positive role model for health

(11) Personal/interpersonal skills. The student demonstrates critical-thinking, decision-making, goal-setting, and problem-solving skills for making health-promoting decisions.
   ▪ (D) Explain the dangers of yielding to peer pressures by assessing risks/consequences
   ▪ (E) Describe steps in decision making and problem solving

F. Health Education (5)
4) Health behaviors. The student recognizes behaviors that prevent disease and speed recovery from illness.
   ▪ (A) Explain how to maintain the healthy status of the body systems such as avoiding smoking to protect the lungs

(5) Health behaviors. The student comprehends behaviors that reduce health risks throughout the life span.
   ▪ (E) Demonstrate strategies for preventing and responding to deliberate and accidental injuries

(7) Influencing factors. The student comprehends ways in which media and technology influence individual and community health.
   ▪ (B) Identify the use of health-related technology in the school such as audiometry and the Internet

(9) Personal/interpersonal skills. The student demonstrates critical-thinking, decision-making, goal-setting, and problem-solving skills for making healthy decisions.
(B) Assess the role of assertiveness, refusal skills, and peer pressure on decision making and problem solving

G. Health Education (6)
   o (4) Health information. The student comprehends ways of researching, accessing, and analyzing health information.
     ▪ (A) List ways to evaluate health products, practices and services, such as sun blocks, dietary aides, and over-the-counter medications.
   o (11) Personal/interpersonal skills. The student analyzes information and applies critical-thinking, decision-making, goal-setting and problem-solving skills for making health-promoting decisions.
     ▪ (B) Demonstrate the use of refusal skills in unsafe situations
     ▪ (C) Explain the impact of peer pressure on decision making
     ▪ (E) Identify the possible health implications of long-term personal and vocational goals

H. Health Education (7&8)
   o (4) Health information. The student knows how to research, access, analyze, and use health information.
     ▪ (C) Demonstrate ways to use health information to help self and others
   o (5) Health behaviors. The student engages in behaviors that reduce health risks throughout the life span.
     ▪ (A) Analyze and demonstrate strategies for preventing and responding to deliberate and accidental injuries
   o (12) Personal/interpersonal skills. The student analyzes information and applies critical-thinking, decision-making, goal-setting and problem-solving skills for making health-promoting decisions.
     ▪ (C) Appraise the risks and benefits of decision-making about personal health
     ▪ (D) Predict the consequences of refusal skills in various situations
     ▪ (E) Examine the effects of peer pressure on decision making

I. Health Education (High School)
   o 11) Influencing factors. The student understands how to access school and community health services for people of all ages
     ▪ (A) Research various school and community health services for people of all ages such as vision and hearing screenings and immunization programs
   o 13) Personal/interpersonal skills. The student analyzes, designs, and evaluates communication skills for building and maintaining healthy relationships throughout the life span
     ▪ (E) Demonstrate refusal skills
   o 16) Personal/interpersonal skills. The student synthesizes information and applies critical-thinking, decision-making, and problem-solving skills for making health-promoting decisions throughout the life span
     ▪ (A) Identify decision-making skills that promote the individual, family, and community health