



CAN YOU HEAR ME?

TRAINER'S GUIDE

Can You Hear Me?

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APEX Science Curriculum Overview



Standards and Objectives: Can You Hear Me?

| | National Science Education Standards | Objectives |
|---------------------------------|--|---|
| Do You Hear What I Hear? | <p><i>Abilities necessary to do scientific inquiry</i></p> <ul style="list-style-type: none"> • Use auditory data to differentiate between a hypothesis and an inference. • Use observations to formulate reasonable explanations. | Children will use their sense of hearing to observe the world around them. Children will also differentiate between observations and conclusions derived from their observations. |
| Good Vibrations | <p><i>Abilities necessary to do scientific inquiry</i></p> <ul style="list-style-type: none"> • Build and improve unique designs by investigating how to enhance a basic string phone. • Use observations to collect data. • Use data to formulate explanations. <p><i>Properties of objects and materials</i></p> <ul style="list-style-type: none"> • Sound can travel through solids, liquids and gasses. <p><i>Position and motion of objects</i></p> <ul style="list-style-type: none"> • Sound is produced by vibrating objects. • The pitch of a sound can be varied. | Children will explore the properties of sound as it is generated by a vibrating object, and then travels through various types of matter. |
| Dancing Salt | <p><i>Abilities necessary to do scientific inquiry</i></p> <ul style="list-style-type: none"> • Use observations to collect data. • Use data to formulate explanations. <p><i>Properties of objects and materials</i></p> <ul style="list-style-type: none"> • Sound can travel through different materials. <p><i>Position and motion of objects</i></p> <ul style="list-style-type: none"> • Sound is produced by vibrating objects. • The pitch of a sound can be varied. | Children will investigate how sound waves can move objects and how sound energy can be manipulated. |
| Toot Your Pipe | <p><i>Abilities necessary to do scientific inquiry</i></p> <ul style="list-style-type: none"> • Use observations to collect data. • Use data to formulate explanations. <p><i>Position and motion of objects</i></p> <ul style="list-style-type: none"> • Sound is produced by vibrating objects. • Some properties of sound can be manipulated. | Children will investigate how vibrations are involved in making sounds by building a musical instrument using a glove, a straw, and different lengths of pipe. |