

PROJECT CALENDAR

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Project: Shh... It's Too Noisy

Time Frame: 3-4 weeks

MONDAY

TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

PROJECT WEEK ONE

Notes These lessons can be spread out over number of weeks

P.EN.03.11 - Identify light and sound as forms of energy.

I can explain that vibrations make sound.

How is sound made?

- What causes sounds to be different?
- What is the difference between pitch and volume?

pitch
sound
vibration
volume

Big Ideas of the Lesson

Sounds can be made in different ways.
Sound is the result of a movement.

[Unit 3 Lesson 1: Toys That Make Noise](#)

[Unit 3 Lesson 1: Toys That Make Noise Student Pages](#)

Sequence of Activities

Advance Preparation: Collect toys from friends, garage sales, or ask parents for donations. (Children may be reluctant to bring in toys from younger brothers or sisters but will enjoy them when they arrive.)

S.IP.03.11 - Make purposeful observation of the natural world using the appropriate senses.
S.IP.03.12 - Generate questions based on observations.
S.IP.03.13 - Plan and conduct simple and fair investigations.
S.IP.03.14 - Manipulate simple tools that aid observation and data collection (for example: hand lens, balance, ruler, meter stick, measuring cup, thermometer, spring scale, stop watch/timer).
S.IA.03.12 - Share ideas about science through purposeful conversation in collaborative groups.

P.EN.E.3 - Sound- Vibrating objects produce sound. The pitch of sound varies by changing the rate of vibration.

P.EN.03.31 - Relate sounds to their sources of vibrations (for example: a musical note produced by a vibrating guitar string, the sounds of a drum made by the vibrating drum head).

I can explain that vibrations make sound.

Big Ideas of the Lesson

- Vibration is a fast back and forth movement.
- Tuning forks vibrate when they make a sound.
- Need Tuning fork/ pan of water

3-5-ETS1-1 - Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

begin Project soundproof room

Introduce the problem of noise in Cafeteria. Investigate. Have students take notes of what they see in cafeteria, music room, classroom, etc.

P.EN.03.32 - Distinguish the effect of fast or slow vibrations as pitch.

I can distinguish between a low and high pitch.

Big Ideas of the Lesson

Pitch means how high or low a sound is.

The pitch of the straw horn depends on the length of the straw. Shorter straws have a higher pitch. Longer ones have a lower pitch.

[Unit 3 Lesson 3: Pitch](#)

[Unit 3 Lesson 3: Pitch Student Pages](#)

You need straws. measure different lengths, make a chart of lengths and pitch high, medium, low,

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[Unit 3 Lesson 3: Pitch](#)

[Unit 3 Lesson 3: Pitch Student Pages](#)

You need straws. measure different lengths, make a chart of lengths and pitch high, medium, low,

Make a chart
give some kids short straws, med, straws and long straws. make a chart of different sounds

PROJECT WEEK TWO

Notes

I can distinguish between a low and high pitch.

Big Ideas of the Lesson

The pitch of the xylophone depends on the length of the bar. Shorter bars have a higher pitch. Longer ones have a lower pitch.

The pitch of the rubber band depends on how tight the band is stretched. Tighter bands have a higher pitch. Looser bands have a lower pitch.

[Unit 3 Lesson 4: Our Rubber Band](#)

[Unit 3 Lesson 4: Our Rubber Band Student Pages](#)

3-5-ETS1-1 - Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

[Unit 3 Lesson 5: Loud or Quiet?](#)

[Unit 3 Lesson 5: Loud or Quiet?](#)

[Student Pages](#)

Big Ideas of the Lesson

Volume is how loud or quiet a sound is.

Increasing the volume requires more force.

Loud sounds can be dangerous.

It is important to protect your ears from loud sounds

3-5-ETS1-1 - Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

Big Ideas of the Lesson

Earplugs block the path of the sound from the object into the ear.

Sound can travel through air, water, and solids.

Loud sounds travel farther because they have more energy.

Continue with soundproof room discussion and investigation

[Unit 3 Lesson 6: Sound Travels](#)

[Unit 3 Lesson 6: Sound Travels Student Pages](#)

P.EN.03.11 - Identify light and sound as forms of energy.

P.EN.03.31 - Relate sounds to their sources of vibrations (for example: a musical note produced by a vibrating guitar string, the sounds of a drum made by the vibrating drum head).

P.EN.03.32 - Distinguish the effect of fast or slow vibrations as pitch.

have kids create instruments at home with note from lesson 8 on materials to use. bring in for Monday after holiday

Have kids create musical instruments at home.

Instructional Resources

Equipment/Manipulative

Balloons

Cereal box

Dowels

Glass jars

Juice cans

Margarine tubs

Nails

Oatmeal box

Paper tubes

Plastic bottles

Rubber bands

Sandpaper

Seeds

Spoons

Tape

Wood

Wooden spoons

Project:

page 2

M O N D A Y

T U E S D A Y

W E D N E S D A Y

T H U R S D A Y

F R I D A Y

P R O J E C T W E E K T H R E E

Notes

PROJECT WEEK FOUR				
Notes				