

# DESIGN A DISTORTION PEDAL



Est. Time: 45 minutes

Subjects: Art, Music, Social Studies

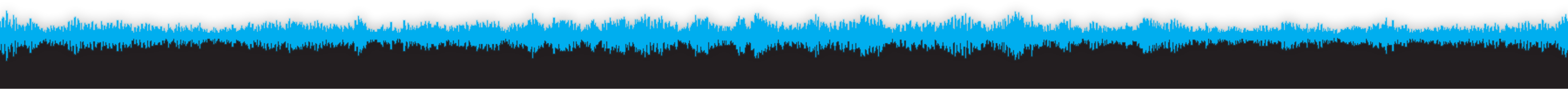
Age Range: Middle & High School, but accessible to all

See the full lesson [here!](#)

★ *TEACHROCK* ★



## **In this lesson you will:**

- Identify the sound of distorted guitar in a recording
  - Understand how a distorted electronic signal sounds and looks in comparison to a non-distorted signal
  - Learn about the inventors of the distortion pedal
  - Design your own prototype of a distortion pedal
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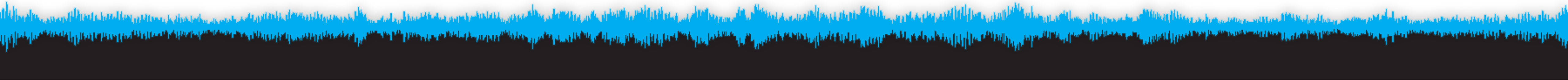


## NIRVANA - SMELLS LIKE TEEN SPIRIT

**Watch this Nirvana performance** and listen closely to the electric guitar. If you can, watch it with a friend on Zoom or video chat.



Think about or discuss with a friend:

- How might you describe the sound of the guitar?
  - What do you think the guitar sound contributes to the song?
  - How might the guitar sound have been created?
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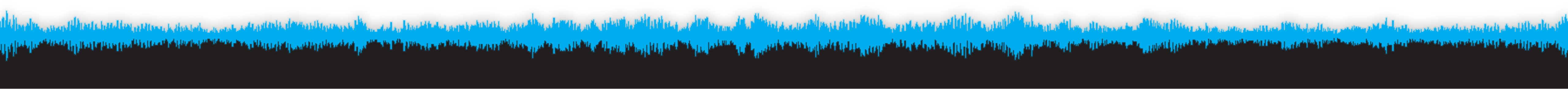


## FUZZTONE

Now **watch this video about “Fuzztone”** and consider your answers to the questions on the previous slide.



Think about or discuss with a friend:

- How do you turn the pedal on and off to get the distortion effect?
  - Did you hear similarities between the words you chose to “describe the sound of the guitar” and those used in the video? What were they?
  - Did you choose different words or hear different words in the video? What were they?
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The first distortion pedal was called the “Fuzz-Tone.” It was invented by Glen Snoddy and Revis Hobbs in the early 1960s.



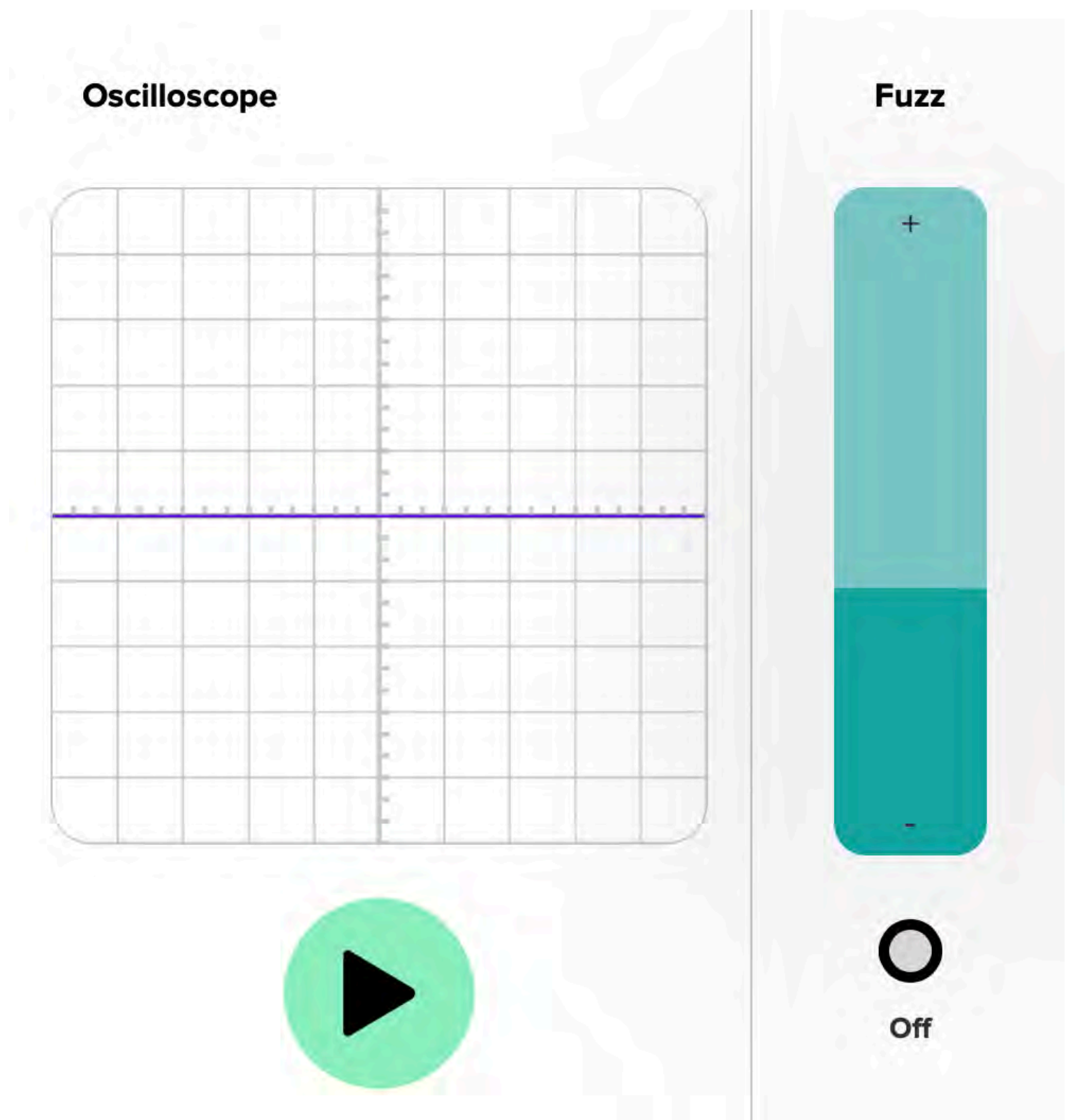
**Open the Fuzz Tone Tech Tool** and play around with the buttons and slider.

What do you hear when you toggle between the sounds?

What do you notice visually when you toggle between the sounds?

Based on the visualization, how might distortion be achieved?

Why do you think a guitarist might want to use the effect?





# SUMMARY

- The first distortion pedal was invented by Glen Snoddy and Revis Hobbs in the early 1960s
- Distortion can be used to boost the volume of the guitar in a song or to give the guitar sound a different mood
- Though few pedals were available in the 1960s, guitarists can choose from hundreds of effects today



# BE CREATIVE

Search “Guitar Pedal Set Up” to see what guitarists might use today.



# BE CREATIVE

Now, create and draw your own pedal. It can be:

- A distortion, reverb, or any effect you'd like
- A pedal for your voice - What might you create?
- A superpower pedal - If you could click a button to give yourself a superpower, what would it be?



# CAREER CONNECTIONS

Interested in the music producing? You might be interested in pursuing careers in:

- Design, visual, and media arts

Interested in creating new musical instruments? You might be interested in pursuing careers in:

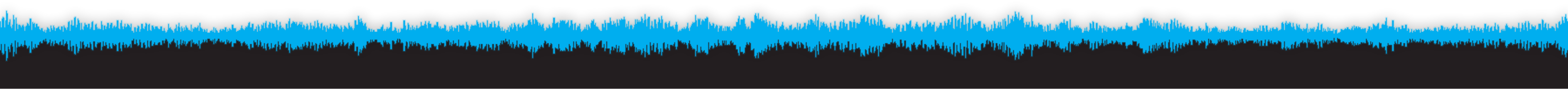
- Product Innovation and Design
- Engineering Design
- Mechanical Systems Installation and Repair
- Engineering Technology



# CONNECT

Take a picture of your pedal and:

- Share it with your classmates
- Share it with us! Either you or an adult in your life can share your work with TeachRock on **Instagram** or **Facebook**, email to **info@teachrock.org**, or Tweet it to **@TeachRock**





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