

## Secondary 7

### Making Music Electric

Dr. Sarah Gulish

#### Grade Level/Class

Upper Secondary Grades  
45 Minute Music Class

#### Overall Theme

Because of the advent of synthesis and other technological advances, instrument manufacturers developed instruments that harnessed the use of electricity. Those instruments still impact music making today.

#### Essential Questions

1. What technological advances changed the course of the music industry?
2. How do musicians innovate with changing technologies?
3. What role does innovation play in the music products industry?

#### National Standards

##### **Create**

MU:Cr1.1.T.HSI.a - Generate melodic, rhythmic, and harmonic ideas for compositions or improvisations using digital tools.

##### **Connect**

MU:Cn11.0.T.HSI.a - Demonstrate understanding of relationships between music and the other arts, other disciplines, varied contexts, and daily life.

#### Student Learning Outcomes

By the end of this lesson, students will be able to:

1. Identify the four innovations in electronics that affected the music industry in the 20<sup>th</sup>/21<sup>st</sup> centuries.
2. Identify key electronic instruments and explain how they function.
3. Create a song using web-based instruments.

#### Materials Needed

1. S7 Presentation
2. S7 Worksheet
3. Writing Utensil
4. [Clara Rockmore Video](#)
5. Student computer with access to DAW or [Chrome Music Lab](#)

## Procedures

### Lesson Introduction (5 Min):

- Teacher (T) plays a clip of the Clara Rockmore video (sound only) and asks students (s) to reflect:
  - What instrument do you think is playing?
- T shows students the clip again, explaining that the instrument in the video is called a "Theremin," one of the first electronic instruments. T explains that today, S will be learning about technological advances and how they affected music. S will also get to play with tech tools and create a song of their own.

### Lesson Activity (35 Min):

- T shares a slideshow with students and starts by explaining how advances in tech during the 20<sup>th</sup> and 21<sup>st</sup> centuries affected music making, specifically highlighting the:
  - Vacuum tube: Hammond Novachord
  - Transistor: Moog
  - Integrated Circuit: Amplifiers
  - Microprocessor: Prophet 5
- T describes each of the innovations on screen and how they were utilized in musical instruments.
- S watch a video on their device of the MiniMoog and Ableton Push demos and answer the questions on their worksheet:
  - How is this instrument innovative?
  - What does it sound like?
- Would you be interested in playing this? Why/why not?
- T demos two exploratory websites for both new and older electronic instrument applications. S explore both the Clara Rockmore doodle and the Novation Launchpad intro.
- After exploring, it is time for S to make their own musical creations!
  - S open a DAW or Chrome Music Lab
  - S creates a melody using the DAW or the melody maker in Chrome
  - S download their Melody as an MP3 and submit per T's recommendation

## Assessment Strategies

### Wrap-up and Assessment (5 Min.):

- T invites students to share their newly created melodies with the rest of the class
- S submit the answer to their worksheet and their newly created melodies

## Extensions/Adaptations

This introductory lesson can be great for expanding into creating large-scale electronic works! Students can build off their melodies and, alone or in groups, work together to create full songs.

If you have access to any heritage electronic instruments, you can incorporate a hands-on component and allow students to try the instruments in the classroom.

For students who need modifications, consider pairing them with a partner to help with the computer work and provide a simplified questionnaire.

### **Adaptations**

- Use closed captions for videos, and allow text-to-speech for any required readings.
- Allow students to use speech-to-text to dictate their answers rather than writing.
- When listening to the Clara Rockmore video, provide students with a list of instruments for students to choose from.
- Provide students with visuals and synonyms for advances in 21st-century music.
- Share a step-by-step guide or video guide for students to reference during their exploration (include screenshots as necessary).

## **Spotlight on Careers in Music**

This lesson plan can be tied to specific careers in music:

- Instrument Maker
- Engineer
- Performer
- DJ

For comprehensive information on careers in the music industry, please visit [Consider a Career in Music](#)