



How the Pipe Organ Works

Age Range: Elementary, Middle School

Learning Objective: Students will learn about how sound is produced on a pipe organ.

Note to Teachers: This is the second of a three-part video series featuring the pipe organ. The [first lesson](#) is an introduction to the instrument. This video explores how sound is produced, and [lesson three](#) explores Composers and the Organ.

ENGAGE students

PREDICT. “Today, we’ll learn about how sound is made on the pipe organ. How do you think sound is made on this instrument?”

EXPLORE sounds

WATCH. Watch the Class Notes video, [How the Pipe Organ Works](#). (4:30 min.)

PLAY. Play a game of “Name that Pipe Organ Part” using the [included visuals](#). *(For younger learners, consider just reviewing the parts as opposed to a quiz.)*

REVIEW. Use the following review questions for journaling or discussion. Younger learners may not retain the information after one view, so you might skip this activity with them.

- ✓ In the pipe organ you saw and heard in the video, how is the wind in the wind system generated? **(a motor)**
- ✓ How is wind let out of the pipes? **(by pressing a key or many keys)**
- ✓ Besides keys, what else can activate pipes? **(foot pedals)**
- ✓ Fill in the blank: the greater the length of the pipe, the ____ the pitch. **(lower)**
- ✓ What are groupings of pipes called? **(ranks)**
- ✓ What do stops do? **(change the timbre (TAM-ber) of the note)**
- ✓ What are three words you would use to describe the organ?

EXTEND learning

Choose one or both activities to extend learning.

WATCH. Learn more in the third video lesson of the series, [Composers and the Organ](#).

CREATE. Play a game of Sound Machine. Remind students that the pipe organ is like a machine, made of many parts that work together. Ask students to brainstorm a sound effects with their mouth or hands (body percussion) that sound like a machine. Instruct students to pick their favorite sound. Starting from silence, turn each machine part (student) “on” by tapping the student until all machine parts are going. See if the class can start to fit their sounds together. Eventually start turning parts “off” (tap students again) until it is silent once again. **Note:** This game tends to get silly! Depending on your teaching style, you can let it be a silly game or encourage the students to stay focused on their sound even when it gets noisy.