



MUSIC & MATH: Numbers

Age Range: Grades 2-8

Learning Objective: Students will understand composer Shruthi Rajasekar's intentions when composing *Numbers*. Students will create an original composition using dice as a tool.

ENGAGE students

PREDICT. Without revealing the title, have students [listen to](#) about a minute of *Numbers* by Shruthi Rajasekar. After listening, discuss the lyrics they heard and predict the title.

SAY. "The title of the composition is.... drumroll please.... *Numbers*! Shruthi Rajasekar is a composer from Minnesota, and we are going to learn about her thought process as she wrote this piece."

EXPLORE sounds

WATCH. Watch the Class Notes video, [Numbers](#). (5 min.)

REFLECT. Discuss, journal, or draw a picture to respond to the following questions:

- ✓ What are three ways you use numbers in everyday life?
- ✓ How are numbers used in music?
- ✓ Are numbers used in music in different ways?
- ✓ Shruthi Rajasekar was inspired to compose a piece about numbers. What are some topics that inspire you? What would you compose a piece about?

CREATE. Follow the instructions on our Dice Composition Activity to help students organize sounds and patterns.

Note: There are many variations with this activity, and you can adapt the activity to your resources or current curriculum. Older students might use rhythm values or pitches. Younger students might use movement or letter sounds.

EXTEND learning

Choose one or more activities to extend learning.

LISTEN. Listen to [Knee Play 1](#) from Philip Glass' opera *Einstein on the Beach*. Ask students to practice early dictation skills or reflect on the journaling prompts:

- ✓ **Practice Dictation:** Write the number sequence for the first minute.
- ✓ **Watch and write:** Write down one object, one name, and one adjective. Compare with a classmate. **Discuss:** Were you more likely to write down something you saw or heard often or something that stood out because it was different?
- ✓ **Journaling Prompts:**
 - ✓ What does this music remind you of?
 - ✓ How does it make you feel?
 - ✓ How is it similar to Rajasekar's piece? How is it different?

LEARN. Learn more about composer Shruthi Rajasekar in [this interview](#) and on her [website](#).