



# Elements of Orbit

## A Space Themed Recorder Lesson

*Suggested Grades: 3-5*

Laurie Orth

### National Core Arts Standards

- #1 – Generate and conceptualize artistic ideas and work.
- #3 – Reine and complete artistic work.

### Objectives

- Practice BAG, Low E, Low F and High C on recorder
- Play melody with accompaniment

### Materials

- Recorders
- Rocket Recorder Workbook
- Boomwhackers™ (optional)
- Recorded Accompaniment Track
- Images of Satellites in Space



### LAURIE ORTH

Laurie has taught in music in various school and church settings. Most recently she has started teaching music to home schoolers. Her YouTube channel, Laurie Orth Music Teacher features many lessons. Most recently she published Rocket Recorder, combining and contrasting music with space exploration.

## Suggested Teaching Process:

*Arrange music stand with book open to the Elements of Orbit picture and music. If using the sheet music only, display the picture on overhead projector or computer screen so everyone can see it. 1-2 students to a stand if possible.*

1. Ask students to describe what they see in the picture. (approx. 3 minutes)

*Hint: You may help them by describing the earth as it looks from high above our planet, you may describe the white clouds and blue oceans or the land below. You may want to ask the class for 4-5 descriptive words, then transition to the music.*

2. Look at the sheet music. (approx. 5-8 minutes)
3. Discuss any places in the music that may be tricky to play.
  - Sing the song with words.
  - Singing assist students with the eighth/ dotted quarter rhythms on the phrase “Elements of Orbit”
  - Read the rhythms using your chosen method for counting. (Ti-ti, ta, or Du-deh, etc)
4. Playing the melody (approx. 8-10 minutes)
  - Identify that the phrase “Elements of Orbit” is the same every time.
  - Students play that phase.
  - Using call and response – students play the first measure of each line and the teacher plays the second measure.
  - Identify that measures two and four are also the same.



- Students practice measures two and four.
- Students play the entire piece, except measures three and five.
- Students review the fingering for F
- Practice measure three and five.
- Play the first 4 measures slowly – Repeat as necessary.
- Play the second 4 measures slowly. Repeat as necessary.
- Play the entire piece slowly.
- Play the accompaniment for the students
- Listening a second time have students play the recorder fingerings without blowing to familiarize themselves with the new tempo.
- Play with the accompaniment.
- Divide the class and have half sing and the other half play the recorder.
- Switch jobs and repeat.

### Extensions:

Use Boomwhackers™ to play the melody of *Elements of Orbit* with the accompaniment. Repeat, trading Boomwhackers™ allowing students to play a different note. Repeat.

### Bonus:

Encourage students to visit the NASA STEM website. Ask them to share what they have learned, photos copied from the website, new vocabulary, etc. in your next music class. Use some of this for your bulletin board.

(<https://www.nasa.gov/stem/>).

or the SpaceX Flickr album to learn more about space and rockets.

(<https://www.flickr.com/photos/spacex/>).

Google NASA coloring pages about orbit, satellites, ISS (the International Space Station.) Select a few coloring pages to print and share with students. Feature student artwork on your class bulletin board.

Google “images of astronauts playing instruments in space.” Show the students or print pictures for your own *Rocket Recorder* bulletin board.

Collaborate: Discuss with your faculty colleagues this space-themed music lesson and find ways to collaborate with them. Discover when they teach about space in their classroom and see if it can overlap with *Rocket Recorder* lessons in your classroom.

### Plan:

Plan to perform songs from *Rocket Recorder* at your school’s STEM day or on your next school concert.

### References:

Orth, Laurie. (2019). *Rocket Recorder - Volume One*.

<https://www.laurieorth.com>

<https://www.nasa.gov/stem/>

<https://www.flickr.com/photos/spacex/>



# Elements of Orbit

Laurie Orth

Lyrics: Laurie & Dylan Orth



G G G A G E G G G A G  
El - e - ments of or - bit go - ing round and round.



G G G A G E G G E F G  
El - e - ments of or - bit get you off the ground.



G G G A G E G G G A G  
El - e - ments of or - bit let you know your place.



G G G A G E G G A B C'  
El - e - ments of or - bit guide your ship in space.