

# Facilitation Guide



## Working Together (Ant Colonies & Orchestras!) SABES Lesson 21

### EXPERIENCE OVERVIEW

In this activity, students will learn how important it is for ants to work together to keep their colony thriving. They will then compare this to how the members of a band or orchestra have to work together to help it be successful.

Students will participate in an Instant Percussion Orchestra where they will play specific roles in conducting a basic percussion piece. They can explore what happens when one group does not do their job and how it can impact the entire orchestra or colony.

### Standards

#### SCIENCE

- 3-LS2-1 From Molecules to Organisms

#### MARYLAND STATE ARTS STANDARDS

- I:3-5:3: Describe the relationships of music to dance, theatre, the visual arts, media arts, and other disciplines.
- E:3-5:3: With limited guidance, make connections between music and other common core subjects, including the arts, through creating, performing, or responding to music.

### Getting Ready

#### LEARNING OBJECTIVES:

- Students will explore connections between the roles insects play in colonies and the roles people play within a school (and in a band/orchestra). Students will support a claim with evidence based on observations that working together can help organisms survive.

#### MATERIALS:

- Student journals

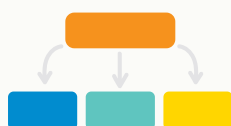
#### TEACHER BACKGROUND:

- Teachers should have an understanding of the components that make up a band/orchestra, including the individuals behind the scenes.

#### STUDENT PREREQUISITES:

- Students should have some general knowledge of the various roles of ants in their colony/ecosystem.

## ARTS INTEGRATION MATERIALS



↓  
**CONCEPT  
MAP**



🔗  
**SLIDES**



🔗  
**VIDEO  
PLAYLIST**

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## TEACH

### Engage

Activate prior knowledge

- Ask students to name the roles and jobs ants can play in their colony/ecosystem. Prompt students to review their Ant Roles Work Songs/the Ant Chant if needed.
- Explain to students that just like each ant impacts their colony by properly doing their job, this also happens in bands and orchestras.



VIDEO TUTORIAL

### Experience & Explore

Part 1:

- Ask students if they can name some of the different types of music groups or bands that exist. If needed, show students video clips like this one provided to help them identify different types of musical groups.
  - *Note: This video is one of 4 episodes that explore different genres of music and musical groupings.*
- Ask students what the jobs/roles they see when viewing the different musical groups (a singer, drummer, violinist, etc.).
- List these ideas on chart paper or digitally.
- Then, ask students what jobs they may not see on screen but who are working behind the scenes to make sure the performance is successful (sound engineers, conductors, lighting experts, etc.).
- Add these roles to the list.

Part 2:

- Ask students to again think about the different roles in an ant colony and compare them to roles in a band or orchestra.
  - For example, a student might say, "The conductor is like the queen ant because they guide and organize the entire group."
- Next, discuss what happens when one ant or one member of a band/orchestra doesn't do their job properly.
  - For example, in an ant colony, if a worker ant stops collecting food, the colony suffers. In a band, if a musician plays off-beat or the conductor loses focus, the music can become chaotic.
  - Highlight how teamwork leads to harmony, while a lack of coordination can create disharmony.

## TEACH

### The Instant Percussion Orchestra

- Explain to students that, like ant colonies, if they are to thrive, orchestras and bands have roles for everyone to play.
- First, divide the classroom into small groups (we suggest 4-7). Each group is going to have a different musical pattern to play. Some will be very simple and provide a musical foundation. Others will be slightly more complex. The patterns will all fit together to create a rhythmic piece of music.
  - Note: This exercise is designed to be simple enough that a teacher with little to no musical background can lead it and it, but is also open-ended so that teachers with a deeper understanding can build on the basic idea.
- Next, introduce the musical starting point: a repeating count of four. The teacher leads everyone at the approximate tempo of a clock – “1 - 2 - 3 - 4, 1 - 2 - 3 - 4, etc.” This is the basic framework for the exercise. In the beginning, the teacher will be the conductor, but this role may shift to a student once the class is comfortable with the activity.
- Then, assign each group a “part to play” in the orchestra. Here are some suggested parts for each group:
  - Group 1: slap their thighs on the count of one
  - Group 2: clap hands on 2 and 3
  - Group 3: tap desks on 1 and 4
  - Group 4: say the word “hello” in a low voice on 1
  - Group 5: say the words “you again” on 3 in a high pitched voice
  - Group 6: make a sound like “oooooooo” on 4
  - Group 7: Make the sound of bird calls in and around the music
- Experiment with the Instant Orchestra!
  - Demonstrate the importance of teamwork by having groups intentionally stop playing or “mess up” their parts when prompted—speeding up, slowing down, or playing off-tempo. This shows how the orchestra’s full sound depends on everyone working together.
  - Students will learn how different roles complement each other, just like in an ant colony. Some may prefer simpler parts, others more complex roles, and some might even want to be the conductor!

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## TEACH

### Reflect & Assess

#### Reflect

- Have students reflect on how their percussion orchestra sounded when all the different groups were doing their jobs and working together vs. when they weren't. How did it affect the sound and success of the performance

#### Assess (Formative)

- To evaluate the Instant Orchestra exercise, we suggest providing students with open-ended questions to extend and enrich this activity.
  1. What ant role is most like a conductor in an orchestra and why?
  2. Which part of a band is most similar to a builder in an ant colony, and why?
  3. What happens when not all members of the colony/band are doing their jobs properly?
  4. Consider how we, as humans, are like an ant colony and how we are not.
  5. Ask students where in society we can find examples of people working like an ant colony.
  6. Lastly, you could ask them to reflect upon the following Maya Angelou quote: "If it is true that a chain is only as strong as its weakest link, isn't it also true a society is only as healthy as its sickest citizen and only as wealthy as its most deprived?" *How can we learn from the group dynamics of an ant colony?*



SLIDES