

## Lesson Six: Flight School Drama

Lesson One: Introduction to Biomimicry provides the foundation for the remaining five lessons in the Biomimicry unit. Flight School is the drama lesson of the unit.

### OBJECTIVES:

1. Students will be able to develop a script based on a book.
2. Students will be able to perform a puppet show enhanced by the dramatic elements of voice, movement and fluency.

### Preparation

Preview Flight School PowerPoint, which includes the illustrated pages of Lita Judge's children's book *Flight School* and the online resource How Do Bird's Fly? on the ASU Ask a Biologist website. There are two options for the script for the students' puppet show. They can perform the script from the book and add more dialogue and stage direction for teaching ostrich to fly or, if your lesson is part of a larger biomimicry unit, you might ask students to perform the script from the book and conclude instead with each student telling what they learned about biomimicry in the unit. You can view 3rd grade performances on the Kyrene de la Paloma Arts Integration website.

### Resources and Supplies

[Flight School PowerPoint](#)

[How Do Birds Fly? \(From ASU Ask a Biologist\) https://askbiologist.asu.edu/how-do-birds-fly](https://askbiologist.asu.edu/how-do-birds-fly)

[Feather Biology \(From ASU Ask a Biologist\) https://askbiologist.asu.edu/explore/feather-biology#paper](https://askbiologist.asu.edu/explore/feather-biology#paper)

sheets of thin paper ([See "Feather Functions" on Feather Biology webpage for paper experiment](#))

### RECOMMENDED:

[2-page text of Flight School Script pdf](#)

[Script Worksheet pdf](#)

[Alternative Script Worksheet pdf](#)

*Book: Crafty Puppets by Thomasina Smith, 1999, Gareth Stevens Publishing, Milwaukee, WI  
(See Big Beaky Bird section.)*

*Illustrated Children's Book: Flight School by Lita Judge, 2014, Atheneum Books for Young Readers*

socks (black, white, pink and brown for puppets)

card stock and double stick tape (for beaks)

feathers

google eyes

crepe paper (for head plumes)

sticky foam (for wings)

hot glue gun

puppet theater (SUGGESTIONS: short lengths of landscaping logs, heavy cord for pier and craft paper for Flight School banner and painting of sea life under the stage)

toy boat for penguin

small birds on black sticks as "extras"

NOTE: See [Kyrene de La Poloma Arts Integration Website](http://az01001083.schoolwires.net/Page/40767) for sample videos of 3rd grade performances. Click on "Biomimicry", then on "3rd Grade Biomimicry".

<http://az01001083.schoolwires.net/Page/40767>

## Activities

### DAY ONE

Instructional Set: Display Flight School PowerPoint slides 1 & 2 to introduce the lesson:

- Divide students into groups, ask them to brainstorm real or imaginary things that have wings and to use their bodies to show how they imagine each thing would fly. Next, ask each group to practice its movements together and finally to collaborate making a tableau (living picture) that stops the things in mid flight (slide 1).
- OPTIONAL: show an example of children performing a tableau to stimulate their thinking about things that fly (slide 2).

Review: Review the theme in life that “Plants and animals have developed amazing ways to solve problems so they can live and thrive”, the theme in science that “Scientists identify problems in today’s world and explore sustainable solutions already working in the lives of plants and animals” and the theme in the arts that “Visual, performing and literary artists fascinated by the amazing abilities of plants and animals find exciting problems for their creative work.”

Review the unit’s key questions:

What inspiration can I find in nature for my own dramatic performance?

What elements of drama will I use (voice, movement and fluency)?

Explain that students will be focusing on how scientists have solved the problem of making airplanes fly by studying how birds fly and will develop a script and perform a puppet show inspired by a book about a penguin who wanted to fly.

Introduction: Display Flight School PowerPoint slides 3-9 to:

- Review how scientists solve people’s problems by studying how nature solved them (slides 3-5).
- Explain how people learned from birds how to design airplanes with **lift** and **thrust** so that they can fly (slides 6 & 7).
- Note that some birds cannot fly even though they can run (ostrich) or swim (penguin) fast (slides 8 & 9).

Go to “How Do Bird’s Fly?” on Arizona State University’s Ask a Biologist website to display explanations and animations of flight by birds and airplanes.

Experiment: Provide student with sheets of thin paper and ask them to blow at one edge to see how the paper rises into the air because it has both thrust (blowing air) and lift (less air pressure on the top surface) – on Ask the Biologist website.

### DAY TWO

Idea Generation: Display Flight School PowerPoint slides 10 to 27 to:

- Illustrate a story inspired by an imaginary case of biomimicry in the world of birds. Explain that students will be using their own imaginations to finish the story by developing a script and performing that script as a puppet show (slide 11).
- As you display two-page spreads of *Flight School*, read, or ask a student to read, the text and pose discussion questions provided with many of the pages (slides 12- 27).

Costume Making: Display Flight School PowerPoint slides 28 & 29 to:

- Overview the remaining activities in the lesson (slide 28).
- Show examples of sock puppets representing the four characters students will make to perform the puppet show script they will be developing (slide 29).
- See “Big Beaky Bird”, recommended reference under “Resources & Supplies,” for guidance in making sock puppets using supplies also listed under “Resources & Supplies.”

### DAY THREE

Script Development: Display Flight School PowerPoint slides 30 & 31 to:

- Divide class into groups of 4 or 5.
- Distribute copies of the Flight School script and explain coding of the script (Bold = dialogue; Black = Penguin; Brown = Teacher; Blue - Narrator; Pink = Flamingo; Stage Direction = in parentheses) (slide 30).
- Ask students to select a part of the script (Flamingo will also be Narrator 1; Ostrich will also be Narrator 2; If there is a fifth member of the group, that student will be Narrator 3.).
- Ask each group to begin by coming up with a way to get Ostrich to fly (slides 31).
- Distribute copies of the Script Worksheet and explain that each group will develop their own script to finish the *Flight School* story and perform the original script with their new ending for the class (slides 32-33).
- Remind student to use voice inflection to express how the characters feel (slide 34).
- Direct students to use movement to make their puppets come alive (slide 35).
- Explain that performers need to deliver their lines with fluency so the audience can hear and understand the character (slide 36).

ALTERNATIVE ENDING: If this lesson is part of a larger unit on Biomimicry, you might ask you students to perform the original script and conclude with each student telling what they learned about Biomimicry.

Practice and Performance: Provide time for groups to practice delivering their script with fluency and using voice and movement before performing for the class. Groups should take turns performing and then come out front to take a bow saying "I'm \_\_\_\_\_ and I played the part of (insert role)."

### **Drama Vocabulary**

script  
stage direction  
narrator  
character  
costume  
stage  
scenery  
inflection  
voice  
movement  
fluency

### **Other Vocabulary**

biomimicry  
lift  
thrust

## Extension Ideas

Read the Kyrene de la Paloma Elementary School Biomimicry Report for ideas about how to collaborate with arts teachers and classroom teachers and perhaps other community organizations, such as an art center, university or wildlife rescue group.

Consider using other children's stories featuring bird characters, such as *The Ugly Ducking*, *Jonathon Livingston Seagull* and/or *The Little Red Hen*, to introduce movement.

## Assessment Guides

1. OBJECTIVE 1: Students will be able to develop a script based on a book.

Exceeds Expectations: Script finishes the story of *Flight School* and includes **both** lines for characters and narrator **and** stage directions.

Meets Expectations: Script finishes the story of *Flight School* and includes **either** lines for characters and narrator **or** stage directions.

Approaches Expectations: Script finishes the story of *Flight School*.

Fails to Meet Expectations: Script is attempted.

OBJECTIVE 2: Students will be able to perform a puppet show fluently enhanced by the dramatic use of voice and movement.

Exceeds Expectations: Performance is delivered with fluency and enhanced with both voice and movement.

Meets Expectations: Performance is enhanced with **both** voice **and** movement.

Approaches Expectations: Performance is enhanced with **either** voice **or** movement.

Fails to Meet Expectations: Students perform.