



CHIMERA BUTTERFLIES: NON-BINARY ANIMALS

SUGGESTED GRADE LEVEL: K – 2

LENGTH OF TIME: 2 sessions of 40 minutes

GOALS

- To introduce the terms binary, non-binary, symmetrical and asymmetrical.
- To introduce an animal that is non-binary.
- To give students an opportunity to express their uniqueness by creating a butterfly that is asymmetrical.



OBJECTIVES

- Students will learn about Chimera butterflies that are both female and male.
- Students will engage in a discussion and art activity that will help them understand what the concept non-binary means.
- Students will create a colorful butterfly that is unique to them.

ACADEMIC STANDARDS

- CCSS.ELA-LITERACY.SL.1.5: Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts and feelings. (Also SL.K.5 and 2.5)
- CCSS.MATH.CONTENT.K.G.B.4: Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length).
- CCSS.MATH.CONTENT.K.G.B.5: Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.

EDUCATORS' NOTES

It is natural for young children to notice differences. Most people are familiar with butterflies who display symmetry – with one wing being a mirror image of the other wing. However, there are some butterflies that have one wing displaying typical female patterning and the other wing displaying typical male patterning. These types of butterflies are called chimera butterflies (pronunciation: ky-mee-ra).

Introducing students to animals that are non-binary, as opposed to the “female and male” gender binary, helps them to understand that there are many genders and that nature displays great diversity. There are other examples of animals who could be called non-binary, such as [cardinals](#) or [blue lobsters](#).

MATERIALS NEEDED:

- Pencils, black markers, colored pencils, crayons, markers or pastels
- Blank paper or copies of the butterfly outlines (see templates attached)
- Photos of [symmetrical butterflies](#)
- Photos of [chimera butterflies](#)
- Optional Materials: glue, glitter, craft sticks, yarn, watercolors
- Optional: [Photos of chimera animals](#)

INTRODUCTION TO CHIMERA BUTTERFLIES AND NON-BINARY ANIMALS

We are going to look at two kinds of butterflies today – symmetrical butterflies that are the same on both sides and chimera butterflies which are often asymmetrical – meaning they have different shapes, colors, and patterns on each side.

- Show photos of [symmetrical butterflies](#).
 - Butterflies exist in many shapes and colors, just like we do!
 - Can you count how many colors you see in the butterflies?
 - What kind of shapes do you see?
 - These butterflies have wings that are symmetrical or mirror images of each other. They are the same on both sides.
- Show examples of [Chimera butterflies](#).
 - These are examples of chimera butterflies.
 - Chimera butterflies have wings that are asymmetrical – each wing is different.
 - The reason they are different is that chimera butterflies are not just one, but both girls and boys.
 - This is called non-binary when an animal is both or neither.
 - There are other animals where you can also easily see that they are chimeras because of the different colors on each side of their bodies such as [cardinals](#) or [blue lobsters](#).

ART PROJECT: DRAWING CHIMERA BUTTERFLIES

Today, we're going to make our own asymmetrical butterflies.

- All of us are different, just like butterflies. There are ways that all of us have different wings. Sometimes we like to be one way and do certain things. Other times we like to be a different way and do different types of things. All of these ways of being are what make each of us a unique person.
- Each one of us is going to create a butterfly with colors and shapes that we like.
- Each wing on our butterfly will be different from the other.

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- Either hand out butterfly outlines or have your students draw their own butterfly outline reminding them that these butterflies have wings that are “asymmetrical.” The wings are different from each other.
 - Hand out art materials such as pencils, black markers, colored pencils, crayons, markers or pastels.
 - For students drawing their own butterfly, have them sketch their idea in pencil and then use a black marker over their butterfly outline.
 - First, color one wing with colors and shapes that make you happy.
 - Next, color the second wing with different colors and shapes that show a different side of you.
 - Optional: (You may want to have students trade butterflies with a partner for the second wing).

SHARING THEIR ARTWORK

- Give students an opportunity to share their work with each other and talk about things that are different and special about their butterflies.
- Have them talk about colors, patterns, and shapes in each wing.
- During the sharing, ask students to share one thing they like about their picture.
- Next, ask students to give an appreciation to their partner about their picture.

EXTENSIONS

- Display the butterflies in the classroom or in the hallway. You could title the display with a phrase such as “Be Who You Are” or “BeYOUtiful”.
- Have students create [symmetrical butterflies](#).

ASSESSMENT AND EVALUATION

- Students will be able to explain the terms symmetrical, asymmetrical, binary, and non-binary.
- While the students are sharing their work with each other, are they using vocabulary and showing comprehension of the words non-binary and asymmetrical?
- Assessment for this lesson will be mostly informal. You will observe your students' reactions during class and small-group discussions. By paying attention to their conversations and individual responses, you can assess their comprehension of diversity and their ability to apply this comprehension by respecting each others differences.
- Informally observe students as they work in their groups. Are they respectful? Do they listen to each other?

ADDITIONAL RESOURCES FROM WELCOMING SCHOOLS

[Lessons to Understand Gender](#)

[Books that Look at Gender and Support Transgender and Non-Binary Students](#)

[Resources for Gender Inclusive Schools](#)

[Be Prepared For Questions and Put-Downs Around Gender](#)

[Defining LGBTQ Words for Elementary School Students](#)

[Professional Development Training](#)



Credit: Developed by Ammo Eisu, [CASA \(Children's After School Art\)](#) San Francisco, CA.
Photo credit: Butterflies – Kathy Pillsbury at the Insectarium, Montreal, CA
Lobster – Canada Department of Fisheries



Top to bottom: Female, Male, Chimera



