



# Butterfly Paper Sculpture

**GRADE: 4**

**TIME: 1-2 sessions**

**Developed by Karen Stomberg, FNSBSD Art Specialist**



**LESSON DESCRIPTION:**

Artists and designers often look to nature for inspiration. French artist and naturalist E.A.Seguy drew intricate scientific illustrations of butterflies and created designs based on his drawings. Students learn about Seguy and produce a 3 dimensional paper sculpture butterfly with colored paper and oil pastel patterns.

<p><b>KIT INCLUDES:</b></p> <ul style="list-style-type: none"> <li>•lesson plan</li> <li>•butterfly sculpture project how-to lesson board</li> <li>• 2 photos of lesson examples</li> <li>•overhead transparencies of E. A. Seguy's butterfly illustrations &amp; designs</li> <li>• E. A.Seguy book</li> <li>•2 double posters of E. A. Seguy's butterfly illustrations &amp; designs</li> </ul>	<p><b>MATERIALS:</b></p> <ul style="list-style-type: none"> <li>•6x9"assorted colors construction paper-4 per student- (wings)</li> <li>•1/2x12" black paper 3 per student (legs)</li> <li>•3 x9" black 1 per student (body)</li> <li>•9 x 12" construction paper (mount)</li> <li>•small pieces bright colored papers</li> <li>•scissors, glue</li> <li>•oil pastels</li> </ul>
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<p><b>VOCABULARY:</b></p> <p>symmetry symmetrical designer sculpture</p>	<p><b>ART ELEMENTS:</b></p> <p><input checked="" type="checkbox"/> Line  <input checked="" type="checkbox"/> Shape/Form  <input checked="" type="checkbox"/> Color  <input type="checkbox"/> Value  <input type="checkbox"/> Texture  <input type="checkbox"/> Space/Perspective</p>	<p><b>ART PRINCIPLES:</b></p> <p><input checked="" type="checkbox"/> Pattern  <input type="checkbox"/> Rhythm/movement  <input type="checkbox"/> Proportion/Scale  <input checked="" type="checkbox"/> Balance  <input type="checkbox"/> Unity  <input type="checkbox"/> Emphasis</p>	<p><b>CONTENT CONNECTIONS:</b></p> <p>Science: insects          Natural history          Math: symmetry  <b>THEMES:</b>          Observation of natural world</p>
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**OBJECTIVES AND ASSESSMENT CRITERIA:** Students will:

- recognize that artists turn to nature for ideas and inspiration and be able to give examples
- differentiate between a scientific illustration made for reference and a design made for decoration
- construct a paper sculpture butterfly demonstrating symmetry in pattern and shape
- design a unique butterfly sculpture incorporating the structure of a real butterfly

**PREPARE:**

1. Cut papers to the sizes required, gather oil pastels, scissors and glue, then make a sample.
2. Familiarize yourself with the included scientific illustrations of E.A. Seguy which were published in the 1920's. Seguy produced color portfolios, or groups of drawings of insects and butterflies for artists to use. These are mostly rare specimens from around the world that he reproduced for artists to use as a reference for their work.

## ENGAGE AND EXPLORE

**1. Artists are inspired by the natural world:** Discuss the concept that artists and designers frequently turn to nature for ideas to inspire their work. Ask students to imagine that they are designers and that they need to find ideas for colors and patterns to help design wallpaper or fabric. Where would they look?

In today's world, it is easy to find color photographs of almost every exotic kind of plant, animal or insect in books, magazines or on the internet. Color photography was not commonly available until the middle of the 20<sup>th</sup> century, so it was not easy for artists to find color images to work from before that.

**2. Scientific Illustrators created colored drawings from nature before color photography was developed. E.A. Seguy was a scientific illustrator and designer:** Show students pages from E. A. Seguy's 1920's portfolio (these are included in both small poster and overhead transparency form) and observe with students how Seguy drew and painted in a careful, detailed way looking at scientific journals and scientific collections of specimens. He included the scientific name and habitat for each species he illustrated.

**3. Show students the two double boards described below:**

a. E.A. Seguy's Scientific Illustrations of Butterflies The butterflies on this board are carefully drawn from life. The patterns and colors are close to the real butterfly found in nature. Ask students to look carefully at the different wing shapes, head and body shapes, colors and patterns.

Can you see the lower wings and the upper wings on these butterflies? If the wings were folded would the markings be in almost exactly the same place? Are they symmetrical?

b. E.A. Seguy's Designs from Butterflies Seguy created these patterns or designs for fabric and other uses. It is easy to see the influence of the butterfly markings and colors in these repeating designs.

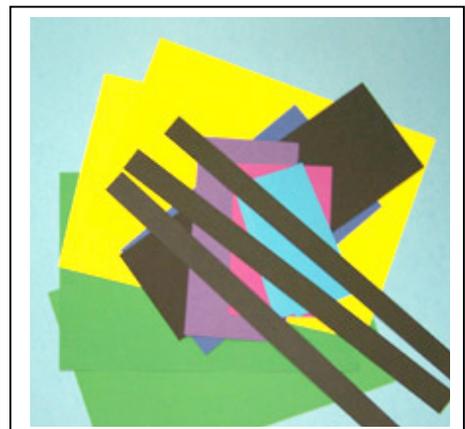
Can you find some whole butterflies hidden in these designs? Individual wings or wing parts? Do you think Seguy changed some of the colors or shapes of the original butterflies to create these designs?

**4.) Butterfly anatomy and structure:** Show students the butterfly anatomy board and review parts. Students will use Seguy's butterflies to design a butterfly paper sculpture. The butterflies will be structured and symmetrical like a real butterfly. **Symmetry** is when features or visual properties on

## CREATE:

### Each student needs:

- 3 1/2x 12" black strips for legs
  - 1 3 x 9" black strip for body
  - 4 6 x 9" pieces for wings (4 of one color or  
2 each of 2 colors)
  - small pieces in a variety of bright colors  
("Astrobrights" if available)
  - 1 12 x 9" black or colored paper to mount
- scissors, glue, oil pastels

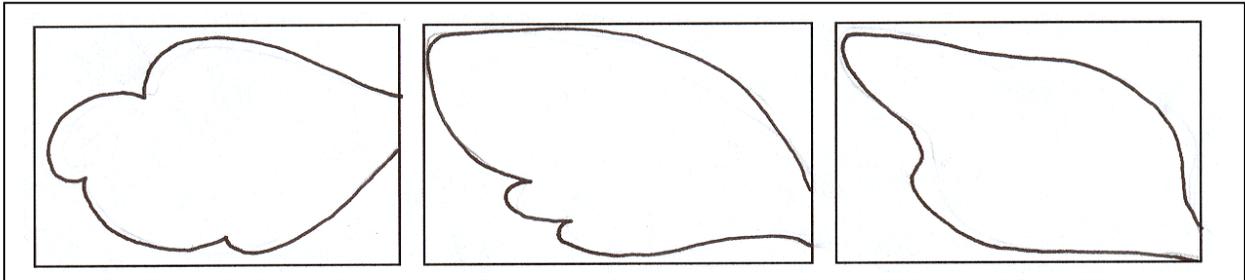


**1) BODY:** the butterfly body is like other insect bodies with 3 distinct parts—head, thorax and abdomen. Fold 3" x 9" black strip of paper in half lengthwise. To make the three body parts, first sketch lightly with a pencil, then cut along open edge like this:

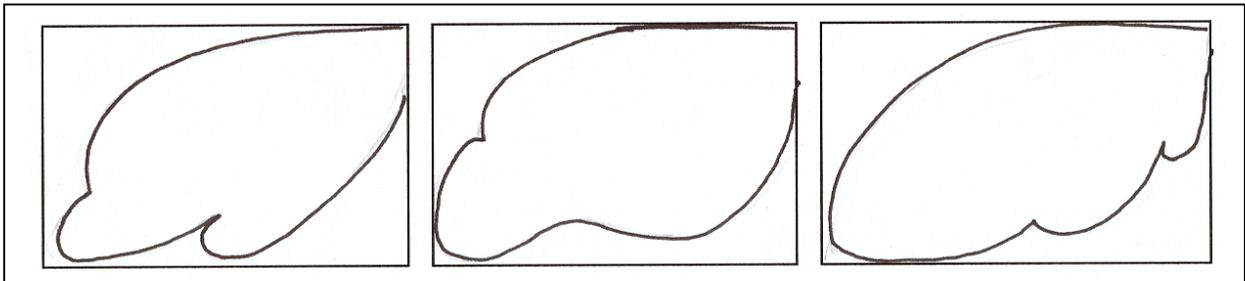


**2) WINGS:** butterflies have four wings, a pair of upper wings and a pair of lower wings. Cut two pieces at a time to make each symmetrical pair. Sketch first lightly with a pencil.

**Upper Wings:** Here are some ideas for upper wing shapes, but wings have many shapes and any will look good. Sketch and cut upper wings.



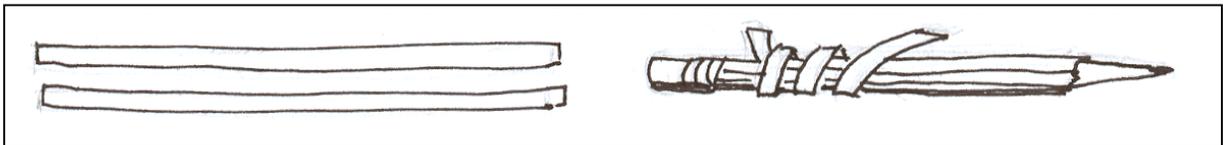
**Lower Wings:** Here are some ideas for lower wings. Draw on a diagonal (from corner to corner) to make lower wings as long as possible. Sketch and cut lower wings.



**3) LEGS:** butterflies have six legs. Taper both ends of all three 1/2" x 12" black strips and make slices if you want 'hairy' legs, like this:



**4) ANTENNAE:** cut a strip of paper and roll on a pencil if you want curled antennae:



**5) ADD BRIGHT PAPER PATTERNS:** Look at the Seguy butterflies for ideas. Remember butterflies are symmetrical, so fold your paper and cut each pattern shape through two layers to make two shapes that are just alike, one for each wing. Attach shapes to wings carefully using small dots

**6) ADD OIL PASTEL DETAIL:** Try outlining the cut paper shapes, the wings themselves or the body with oil pastel. Look at the Seguy's butterflies for ideas. Notice the vein-like lines on the wings, details on the body sections and the "eye" shapes on wings. Add details like these to your butterfly, or use your own ideas in oil pastel to add pattern. Remember to keep it symmetrical!



**7) PUT IT ALL TOGETHER:** See photo to the right of butterfly on it's back. →

- Glue wings to thorax **from the back**, let the upper wing overlap the lower wing on each side, if you can.
- Glue three leg strips to thorax from the back also. Bend strips to make knees and feet.
- Glue antennae to head



**9) MOUNTING:** Mounting the butterfly on a 9" x 12" colored or black construction base is critical to the success of the sculpture. The butterfly needs to be pushed up so it rests on its legs and sits off the paper. The wings are then glued to the edge of the paper and overhang. The 'feet' may be glued down after the wings have created an arch off the paper.





# *Paper Sculpture Butterflies*

*The patterns on our butterflies were inspired by looking at pages of scientific illustrations done by E. A. Seguy in the early 20<sup>th</sup> century. Artists frequently observe nature for inspiration, either in the field or in photographs. Before there were color photographs, artists used books with detailed colorful drawings for reference, like the E. A. Seguy drawings we used.*

*Our butterflies are symmetrical.  
Ask us what that means!*

## *Paper Sculpture Butterflies*

*We made symmetrical butterfly sculptures in art today. Ask me what symmetrical means!*

*The patterns and colors on my butterfly were inspired by looking at pages of scientific illustrations of butterflies done by the French naturalist and artist E. A. Seguy in the early 20<sup>th</sup> century. Artists and designers often look to nature for inspiration. Today if they can't see the real thing in nature, artists use photographs for reference.*

*Before there were color photographs artists could find books with detailed colorful drawings like the ones we used to see what things really looked like.*

*Observe nature closely for inspiration, it is a never-ending source of ideas!*

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