Distance Learning/Videoconferencing
at the

Center for Puppetry Arts

Butterflies

Distance Learning Study Guide
PreK – 2nd Grade

Sponsored by: Tandberg
Dear Educator:

We are scheduled for a Butterflies videoconference with your group. You will need to do some preparation prior to the program. Below are the directions necessary for preparation (REQUIRED TO PARTICIPATE IN THE PROGRAM).

1. The materials list is the first thing on the study guide. Each student needs these materials to fully participate in the program.
2. All templates need to be traced onto construction paper (any color is fine) and cut out.
3. Please trace wing designs (circles) onto a different color than the wings.
4. Please bring all pre-cut pieces and other materials to the program. It is helpful if each student has an individual bag with their own puppet parts. You can use small paper lunch baggies or Ziploc baggies.
5. Pass out all materials PRIOR to program start time. This includes glue, tape and scissors. It is helpful if each student has his/her own glue stick or bottle. Please have 4 strips of clear tape about the size of a bandaid pre-cut and ready for each student. You can pre-tear pieces and stick them to the sides of the table, OR stick them to yard sticks (just hold out yard stick and students can take a piece of tape from it—teacher recommended!).
6. We will lead all students through the puppet building steps and learning activities.
7. The program does not allow time for students to cut out materials.

The activities in the study guide are for you to use at your discretion as either pre or post activities. We will be doing different activities with the students during the program.

Please let us know if you have any questions about how to prepare for the program. If you have any technical questions, please contact us directly at (404) 881-5117.

Thank you!!!
The Distance Learning Team
Center for Puppetry Arts
Patty Petrey Dees, DL Program Director
Sara Burmenko, DL Program Operations Coordinator
Iyabo Shabazz, DL Program Presentation Specialist
Eve Krueger, DL Program Assistant/Presenter
distancelearning@puppet.org
Direct studio line: 404-881-5117
Facsimile: 404.873.9907
www.puppet.org/edu/distance.shtml
Videoconferencing Activity

Marionette Butterflies Puppet

Materials List

Each student will need **all** of the following:

1 wing (template)
Wing designs (template)
1 body (3 part template)
1/2 of a chenille stick (any color)
1 craft stick (preferably the jumbo craft stick, but regular size is okay)
1 piece of yarn or string about 18 inches (not required for PreK)
extra construction paper
scissors
glue
scotch tape

**Templates must be** pre-cut before the program!

Butterfly body template (1 of 3)
Wing designs template (2 of 3)
National Curriculum Standards met during live videoconference

Please go to www.educationworld.com for a complete list of national standards

**Fine Arts/Visual Arts**
- **NA-VA.K-4.1** Understanding and applying media techniques, and processes
- **NA-VA.K-4.2** Using knowledge of structures and functions
- **NA-VA.K-4.3** Choosing and evaluating a range of subject matter, symbols, and ideas
- **NA-VA.K-4.5** Reflecting upon and assessing the characteristics and merits of their work and the work of others
- **NA-VA.K-4.6** Making connections between visual arts and other disciplines

**Technology**
- **NT.K-12.1** Creativity and Innovation
- **NT.K-12.2** Communication and Collaboration
- **NT.K-12.3** Research and Information Fluency
- **NT.K-12.5** Digital Citizenship
- **NT.K-12.6** Technology Operations and Concepts

**Life Science**
- **NS.K-4.3** The characteristics of organisms: Life cycles of organisms; Organisms and environments
Activity 1: Kinesthetic & Caterpillars

National Curriculum Standards met by this activity
Please go to www.educationworld.com for a complete list of national standards.

NS.K-4.3 Life Science
NL-ENG.K-12.4 Communication Skills
NL-ENG.K-12.12 Applying language skills
NA-T.K-4.2 Acting by assuming roles and interacting in improvisations

NASPE (National Association for Sports & Physical Activity) standards met by this activity

Standard 1 Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.
Standard 2 Demonstrates understanding of movement concepts, principles, strategies, and tactics as they apply to the learning and performance of physical activities.
Standard 6 Values physical activity for health, enjoyment, challenge, self-expression, and/or social interaction.

Activity

Objective: Students will participate in kinesthetic movements to enforce lifecycle of butterfly
Materials: A copy of Roly-Poly Caterpillar poem (below); butterfly puppet

Procedure
1. Read the following poem aloud to your class.
2. Have students memorize the words and movements to enforce lifecycle of butterfly.
3. Recite the poem and actions together as a class.
4. Students can also use their puppets at the end of the poem for the grand finale. This is a great way to introduce students to the lifecycle of the butterfly.

Roly-Poly Caterpillar

Roly-poly caterpillar
Into a corner crept
Spun around himself a blanket (spin around)
Then for a long time slept (place head on folded hands)
Roly-poly caterpillar
Wakening by and by-(stretch)
Found himself with beautiful wings
Changed to a butterfly (flutter arms like wings or use puppets)
- By Liz Cromwell and Dixie Hibner
Activity 2: Patterns, Relations and Functions – Oh, my!

National Curriculum Standards met by this activity
Please go to www.educationworld.com for a complete list of national standards.

NM-ALG.PK-2.1 Understands patterns, relations, and functions
NM-ALG.PK-2.2 Represent and analyze mathematical situations and structures using algebraic symbols
NM-PROB.PK-12.1 Build new mathematical knowledge through problem solving
NM-PROB.PK-12.2 Solve problems that arise in mathematics and in other contexts
NM-PROB.REP.PK-12.1 Create and use representations to organize, record, and communicate mathematical ideas
NM-PROB.REP.PK-12.2 Select, apply, and translate among mathematical representations to solve problems
NM-PROB.REP.PK-12.3 Use representations to model and interpret physical, social, and mathematical phenomena

Activity

Objective: Students will correctly sort items and create repetitive patterns. Students will use algebraic symbols to create patterns.

Materials: Assorted pasta – bowtie, elbow macaroni, shell-shaped; dried peas or light colored dried beans; paints, colored markers, construction paper, colored pencils or crayons, paper, pencils, glue.

Procedure:
1. Begin this activity by labeling four containers with each of the four stages in the lifecycle of a butterfly – egg, caterpillar, chrysalis and butterfly.
2. Next, select pasta shapes to represent the four stages:
   a. caterpillar (elbow macaroni), chrysalis (shell-shaped pasta), butterfly (bowtie pasta) and the egg (dried peas or beans).
3. Create a legend or key on the board to make sure students understand the symbolism of the pasta shapes. Draw these on the board as follows:

   ![Diagram of pasta shapes]

   = egg
   = chrysalis
   = caterpillar
   = butterfly
Activity, cont.

4. Next, have students paint or color the pasta as they like. Explain to the students that caterpillars and butterflies come in many different colors, shapes and sizes.
5. After the paint has dried, have students sort the pasta into the four different containers as labeled, following the legend on the board.
6. Next, use the pasta shapes to create patterns. Draw a pattern on the board and ask the students to duplicate it with their pasta shells. Students will select the pasta/bean from the correct container and create a pattern on a sheet of paper. For example:

Teacher draws on the board:

![Patterns on the board]

7. Teachers should continue with new patterns, increasing difficulty level gradually.
8. Finally, have students create their own pattern on a piece of colored construction paper. You can make the patterns permanent by gluing the pasta in place.

Activity 3: Isn’t symmetry beautiful?

National Curriculum Standards met by this activity
Please go to www.educationworld.com for a complete list of national standards.

NM-GEO.PK-2.3 Apply transformations and use symmetry to analyze mathematical situations
NM-GEO.PK-2.1 Analyze characteristics and properties of two- and three-dimensional geometric shapes

Activity

Objective: Students will define symmetry and apply knowledge to create symmetrical patterns

Materials: 1 copy of blank, butterfly wings sheet per student; 1 bag of foam geometric shapes (or create your own); markers or crayons; pictures or flash cards representing symmetry

Procedure:
1. Pass out a blank butterfly wings sheet to all students.
2. Explain that the colors and markings on butterflies are symmetrical. Show examples of symmetry in nature and ask students to define it.
3. Give each student a small handful of foam geometric shapes or supply them with markers or crayons.
4. Ask students to use symmetry to decorate their butterfly.
Other Resources

Websites to Explore

**www.monarchwatch.org**
Observe the different stages of the butterfly through colorful photographs at the University of Kansas Monarch Watch Program Web site.

**www.yahooligans.com**
The Yahooligans Web site offers a butterfly category with loads of information for students and teachers. Enter into Science & Oddities, then Animals, then Insects, then Butterflies. This site provides links to other sites as well.

**www.mesc.usgs.gov/butterfly/butterfly.html**
The U.S. Geological Survey site offers a special Children’s Butterfly page. It includes a coloring page of the lifecycle of the Monarch, a list of the most frequently asked questions about butterflies and moths, information

Selected Bibliography


Other Resources

W. Atlee Burpee & Co.
300 Park Ave.
Warminster, PA, 18974
800.333.5888
www.burpee.com
Order seeds for your butterfly garden.

The Nature Store
46 Hilltown Pike
Line Lexington, PA 18932
800-345-1638 or 215-997-0233
www.thenaturestore.com
Offers raise/release butterfly kits ($22.95 +), and great books (including Monarch Magic!)

Delta Education Hands-On Science
800-258-1302
www.delta-education.com
Call for a catalog. Butterfly Garden Classroom Kits, butterfly posters, activity books exploring protective coloration, etc. can be ordered. Also has the same butterfly kit as The Nature Store, but it is only $19.95 on this site (item # WW1015400). They also have butterfly lifecycle models $4.95; item # WW131-4707).

North American Butterfly Association
4 Delaware Rd.
Morristown, NY 07960-5725
973.285.0907
973.285.0936
www.NABA.org
NABA organizes the national Fourth of July Butterfly Count and publishes American Butterflies magazine and Butterfly Garden News. U.S. membership is $30 for individuals/ $40 for families and institutions.

The Entomological Foundation
9332 Annapolis Road
Suite 210
Lanham, MD 20706
301-459-9082
301-459-9084
http://www.entfoln.org