

# Butterflies and their Beauty

## Grade Cluster – K-2

### NETS-S – 1 - Creativity and Innovation

#### Quick Look:

Students are studying Monarch butterflies. They have observed the butterflies from the cocoon stage until they emerge as beautiful, colorful butterflies. Students will draw a Monarch butterfly and also report on the stages of its development. They will also raise funds to preserve Monarch butterflies in the world.

#### Scenario:

A great fall activity for students, as they begin the school year, is to study Monarch butterflies. This activity incorporates technology and introduces students to some interesting technology tools that can be used later on throughout the school year.

Teachers and students use the [Journey South](#) website to gather information about Monarch butterflies. Students can keep track of their sightings of Monarch butterflies and record them on the Journey South website. Additionally, as part of the overall project, this class will collaborate with other students by participating in the Symbolic Monarch program, whereby children will send a butterfly drawing to Mexico and will receive one back in the spring. These drawings are produced using [Paint](#) or a similar program. As Monarch caterpillars become available, the students prepare to gather them to put in their classrooms. Students use the Internet to research from teacher-selected sites what the requirements would be for a Monarch butterfly living environment. (6a,b) Another group of students is in charge of constructing the appropriate living environment for their caterpillars and butterflies, so that they will survive while they are in the classroom. Once they put their caterpillars in these newly constructed environments, students prepare to observe them closely. Students record in their journals how the caterpillars change and transform into butterflies. Students record these changes by using [Kidspiration](#), a student-friendly graphic organizer.

The students use the [Monarch Watch](#) website to participate in a global activity. Students also use a digital camera or video camera to record the changes that are occurring. They use their photos to make a digital story of the stages of metamorphosis using *Photo Story*. They do this working in groups. Students use some excellent webquests that have been developed on Monarch butterflies including [Monarch Butterfly webquest](#)(1c).

Using a *Paint* program students draw Monarch butterflies. First, they draw one side of their butterfly and then using the program, duplicate that side and flip it to get a butterfly with symmetrical markings. (1b, 1c) Students then write a sentence about their butterfly. (1b)

As students finish their art projects, the teacher uses this opportunity to teach students some basic operations of the computer by having them complete the [Monarch maze](#), which encourages students to use the arrow keys on the keyboard. This site also has some [primary level games](#) which will further their development of basic computer skills. (6a, 6b) Students can use these activities on an [interactive white board](#), in order to also become familiar with the use of the interactive whiteboard.(6b)

Students use a class blog to share all of their work with their parents. They post the butterflies they have drawn on the blog. Additionally, all of the butterfly drawings are published in a book on [lulu](#), and post-publication, parents have the opportunity to purchase copies of the book as part of the class fundraiser. Money generated from the sale of the class book is donated to an organization dedicated to butterflies, chosen by the students.

**Student Standards** – The following NETS-S are noted in the Scenario:

1. Creativity and Innovation –B, C
6. Technology Operations and Concepts – A, B,

**Teacher Standards** – Teachers who teach this unit address the following NETS-T:

1. Facilitate and Inspire Student Learning and Creativity-A, B
2. Design and Develop Digital-Age Learning Experiences and Assessments-A, C
3. Model Digital-Age Work and Learning – B, C, D
4. Promote and Model Digital Citizenship and Responsibility – A, B, D
5. Engage in Professional Growth and Leadership -

## Content Grade Expectations

The scenario writer has identified the following content grade expectations that s/he felt might be assessed in this scenario. In most of these scenarios, there may well be opportunities to assess other or additional content grade expectations across a variety of disciplines. If you are interested in developing a unit or lessons based on the following scenario, and you don't see any grade expectations in your content area, we encourage you to capture the ideas presented in the scenario and make it your own by adding components that address the grade expectations you are most interested in assessing.

### Art

#### **A1-2:10 Students show skill development when CREATING art by...**

Using line in various media (e.g., pencil, marker, cut-outs, etc.) to create shape and image.).

### Science

#### **S1-2:1 -Students demonstrate their understanding of SCIENTIFIC QUESTIONING by...**

- Posing observational questions that compare things in terms of number, shape, texture, size, weight, color, motion, etc. (e.g., How fast does a Lady Beetle move compared to a Bess Beetle?).

- Investigating and completing questions to identify a variable that can be changed (e.g., What will happen if...? or I wonder if I change...?).

**S 1-2: 2 Students demonstrate their understanding of PREDICTING AND HYPOTHESIZING by...**

- Predicting a logical outcome to a situation, using prior knowledge, experience and/or evidence.
- Explaining reasons for that prediction.

**H&SS1-2:4 Students conduct research by...**

- Following directions to complete an inquiry.
- Asking questions and observing during the investigation process.

Recording observations with words, numbers, symbols, and/or pictures (e.g., drawing or labeling a diagram, creating a title for a drawing or diagram, recording data provided by the teacher in a table).

**S1-2:30 Students demonstrate their understanding of Structure and Function-Survival Requirements by...**

- Observing and recording the parts that make up living things (i.e., roots, stems, leaves, flowers, legs, antennae, tail, shell).