

The Life Cycle of a Monarch Butterfly

The purpose of this project is for students to learn about and observe the life cycle of a monarch butterfly. The use of technology helps students keep a record of all of the changes that the butterfly goes through. This project, which combines research and hands-on activities, is effective with students whatever their learning style.

Project Description

In this project, students work in teams to record the different stages of the monarch butterfly's life cycle. One group is responsible for each stage—when that group's stage is complete, the next group takes over recording the butterfly's changes.

If one is available, a video is shown to the class to introduce monarch butterflies. Students then create a timeline and storyboard for their movie to help them organize the camera shots, information, and music they will need. Students observe the school's butterfly garden, looking for monarch butterfly eggs. As each stage takes place, students record the changes using digital video camera stations they set up in the garden and classroom. They can also take still photos of the butterfly and import these images into iPhoto. Students create or locate music for the soundtrack for their movie and import it into iTunes. They research the monarch butterfly using the Internet and other resources and save the information they want to use to narrate their movie. After learning how to use iMovie, students import their video clips and edit their movie, recording narration, and adding music, titles, photos, and other elements. After a final revision, the students can export the completed movies to QuickTime and burn them on a CD, export them to videotape, or use iDVD software and a SuperDrive to include them on a DVD. They can then share their movie with the whole school.

Note: If monarch butterflies do not come to the school's area, a different butterfly could be studied instead.

Outcomes

After completing this project, students will be able to:

- Work cooperatively to take photos, film video, and edit a movie.
- Understand the life cycle and the migration of monarch butterflies.
- Share their study with other students.

Technology Skills

After completing this project, students will be able to:

- Research a topic using the Internet and books.
- Use a digital video camera to film different stages of the butterfly's life.
- Use a digital camera to take photos of the butterfly.

- Use iMovie to import and edit video and create a movie.
- Use word-processing software to create a timeline and organize their research findings.
- Locate or create music and import it into iTunes.

Assessment Suggestions

- The teacher can check student progress at each step of the process.
- The final video can be assessed using a rubric created by the teacher and students.

Tools and Resources

Internet

- <http://www.monarchwatch.org>
- iLife How-To Guides: <http://www.apple.com/education/ilife/howto/>

Tools

Macintosh computer (computer with CD burner or SuperDrive is optional), digital video camera, digital still camera, tripod, external microphone, Internet connection, iMovie, iPhoto, iTunes, iDVD (optional) AppleWorks, music creation software (optional), milkweed plants, aquarium set up as habitat for caterpillars and young butterflies

Technology Tips

- A good plan by the students will help the teacher determine if the school has all of the equipment needed to complete the project.
- Make sure the camera's batteries are charged at all times, since butterflies do not wait for batteries to charge.

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