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San Bernardino County

Superintendent of Schools

Transforming lives through education

Friday, May 1

1:30pm

Butterfly Town USA - 4th thru 8th grade

The coastal city of Pacific Grove in Monterey County, Calif. is known as "Butterfly Town, U.S.A." for the annual migration of the Monarch butterflies. The Monarch Butterfly Grove Sanctuary in the town is one of the oldest Monarch over-wintering sights in California, but in recent years their numbers have been dwindling rapidly. In 2009, the city heavily pruned branches, and gaps in the tree canopy resulted in Monarch numbers dropping from nearly 18,000 to under 800. BUTTERFLY TOWN, USA centers on a community of activists, led by Bob Pacelli, who took action to save the Monarch Butterfly Grove Sanctuary. Pacelli and a group of volunteers planted 40 boxed trees to buffer the impact of the trimming. As a result, Monarch numbers increased by more than 500%. Motivated by their progress, more trees were planted which led to a clash between activists and the city about how best to protect the over-wintering site. BUTTERFLY TOWN, USA focuses on the local habitat protection for the Sanctuary, but also on a larger goal: citizens working together globally to limit habitat loss due to climate change, deforestation and pesticides.

After watching this episode, choose from the following questions and/or tasks to extend your learning

Question Box 1

- Why do Monarch butterflies migrate? Where do they come from and where do they go?
- What makes both Pacific Grove and Mexico good locations for the butterflies to travel to and from?
- Explain why butterflies use the same tree to migrate to each year. How does this work when a butterfly's life span is 2-6 weeks?
- What has been done to save the Monarchs and the sanctuary?
- What are some of the causes for the decline in the Monarch population?
- What is an activist? What groups are working together to save the butterflies? What is the biggest frustration felt by these groups?
- What was Bob Pacelli's, (man leading the effort to restore the Sanctuary) the biggest contribution to this effort?
- What is the importance of the openings created in the branches of the trees which allows the wind to blow through?

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- Dr. Lincoln Brower states, "We need to realize that biological treasures, such as the monarch, are valuable in their own right." What does he mean by this statement?

Question Box 2

- What more do you want to learn about this topic, and why?
- What in the program made you curious? Explain.
- What is our role in relationship to the possible endangerment of this species and others?
- What is our role in this mass extinction of Monarchs and many other animals?
- How have we fostered the importance of the natural environment?
- What would happen if we succeed in protecting the environment and other species?
- What would happen if we didn't succeed?
- Do you feel it is our responsibility to protect the environment why or why not, explain?

Box 3 (Tasks)

- Draw a picture of a Monarch butterfly and list its parts.
- Diagram the life cycle of the Monarch butterfly.
- Print or draw a map of the Americas and show the migration route of the Monarch butterflies.

Box 4 (Enrichment)

- Compare and Contrast a Monarch butterfly and a Viceroy butterfly.
- Research why humans need butterflies and what would happen if there were no butterflies. Create an infographic to show your findings.
- Create a butterfly pamphlet. Select 8-10 butterflies to showcase. Include details of each species and a drawing and/or diagram. Be sure to use accurate colors and realistic drawings in your pamphlet. Also include a diagram with labels the parts of a butterfly.

Box 4 (Extend/Real-Life)

- Monarch butterflies take up toxins into their bodies from eating the Milkweed plant which, in turn, helps protect it from predators. Research and describe an instance where industry uses plant toxins to protect crops or animals from predators.
- Make your own backyard a butterfly sanctuary. Use the link to help you get planting!
 - [Create a Butterfly Garden](#)