

<u>5-8 National Science Education Standards Correlation</u>	Science Snoops Curriculum Content (examples are from the Monarch butterfly mystery case)	<u>9-12 National Science Education Standards Correlation</u>
<u>Content Standard A: Science as inquiry</u>	Students are given the opportunity to:	<u>Content Standard A: Science as inquiry</u>
Design and conduct a scientific investigation.	use evidence to generate explanations (analyze monarch population data at Miller's Pond and compare the data to previous year measurements) interpret data (compare caterpillar weights, butterfly weights, level of infection with parasites, etc.)	Design and conduct scientific investigations.
Use appropriate tools and techniques to gather, analyze, and interpret data. Use mathematics in all aspects of scientific inquiry.	interpret charts and graphs mathematically use formulas to estimate monarch populations	Use technology and mathematics to improve investigations and communications.
Develop descriptions, explanations, predictions, and models using evidence.	acquire subject matter knowledge about monarchs (life cycle, migration, habitat, interactions with other organisms) to develop hypotheses, explanations, predictions and models about the monarch's population dynamics	Formulate and revise scientific explanations and models using logic and evidence. Recognize and analyze alternative explanations and models.
<u>Content Standard C: Life Science</u>	Students are given the opportunity to:	<u>Content Standard C: Life Science</u>
Structure and function in living systems	deal with quantitative observations (butterfly and caterpillar weights, forewing length, amount of infections, weather data, etc.) Monarchs rely on nectar sources to build up fats in their bodies for the survival during migration and the winter months.	Matter, energy, and organization in living systems
Reproduction and heredity	study the monarch's life cycle; study different populations of monarchs Bt corn biotechnology, and herbicide tolerant plants	Molecular basis of heredity
Populations and	study the factors that limit the survival of	Interdependence of

ecosystems	monarchs, dependence on milkweed plants and wild flowers. Interaction with parasites and predators.	organisms
Diversity and adaptations of organisms	The limitations of the environment and resources affect how many of the eggs a monarch female lays can survive. (demonstrates natural selection and survival of the fittest.)	Biological evolution
<u>Content Standard F: Science in Personal and Social Perspectives</u>		<u>Content Standard F: Science in Personal and Social Perspectives</u>
Science and technology in society	Students are given the opportunity to: understand that science and technology advances through the contributions of many different people, in different cultures (virtual co-workers and expert scientists as models)	Science and technology in local, national, and global challenges