

NatureMapping Program
4th Grade Reptile Project

Modules	Life Sciences	Math	Technology
1. Scientific question What reptiles live in the Waterville Plateau? (descriptive)	Hypothesis: There are reptiles that live throughout the Waterville Plateau		
2. Project Design (Identify a Setting within a System and Identify variables of Interest) What you are going to do?	Identify what species are predicted to occur Identify the habitats they use	Collect and graph reptiles sightings	Students will take digital pictures, GPS locations of sightings. Publish results on the website & submit data to <i>NatureMapping</i> Make posters
3. Methods (Collect Data) How you are going to do it?	Students will collect data from home and interview their farmers about the sightings. Students will learn about food preferences, and other life history information about reptiles.	Create graphs (start with paper, then advance to Excel)	Internet to find information and details about horny toads. GPS locations will be entered into Excel. Maps will be made using ArcView Use Terrain Navigator Pro to find locations on a map
4. Data Analysis - Results What did the data tell you?	There are ___ species of reptiles Waterville and they use different habitats.	Example: Horny toads are found in farm fields, but usually closer to scab patches. Horny toads are found in the fields during the later part of the day. Use temperature graphs to show horny toads freeze during the winter	Maps show where the sampling occurred. Use maps and graphs to show why horny toads live (or don't live) in fields
5. Discussion (Use Evidence to Support an Explanation) Why do you think you got the results that you did?	Data collected is helping learn more how the farmers and horny toads live together.	Collecting data in different locations next year will prove our theory	Can technology support your best guess that horny toads freeze or stay in scab patches?

NatureMapping Program
4th Grade Reptile Project

Modules	Reading/Writing	Art	Social Studies
1. Scientific question What reptiles live in the Waterville Plateau? (descriptive)	Hypothesis: There are reptiles that live throughout the Waterville Plateau		
2. Project Design (Identify a Setting within a System and Identify variables of Interest) What you are going to do?	Students will learn new science related vocabulary. Develop knowledge of the different reptiles using field guides and Internet	Draw pictures of the habitats and trace all transfers of energy in a system Draw reptiles and their 12 month life cycle	Learn how to read maps, use GPS units, aerial photography, how to find Township Range and Section and latitude and longitude.
3. Methods (Collect Data) How you are going to do it?	Students will design the data collection form. Students will create a poster for each species.	Draw and label a scientific illustration of each reptile and use the correct vocabulary to describe it.	Collect GPS locations from homes. Use topographic maps and ArcView to teach geography.
4. Data Analysis - Results What did the data tell you?	Write the results for the website and in powerpoint for presentations.	Students will create posters based the reptiles they have found and prepare drawings for the mural	
5. Discussion (Use Evidence to Support an Explanation) Why do you think you got the results that you did?	Students will discuss their results for the web site.		