

Mystery Class Sites: Adapted from Journey North Mystery Class

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Grade Level (Req.): 6th-8th grade	Content Area (Req.): Geography	Unit (Opt.):
Connections to Other Disciplines (Opt.): <ul style="list-style-type: none"> • • • 		
Time Frame (Req.): Twelve consecutive weeks	Goal (Req.): To help students understand the Earth's daily and seasonal cycles and how latitude, longitude, and photoperiod can help you locate places on Earth.	
	Objective (Req.): Students will know how sunrise and sunset times can be used to discover exact locations.	
Materials Needed (Req.): <ul style="list-style-type: none"> • Computer and Overhead CTX Projector • World Atlas • Sunrise/Sunset Data and Worksheet • Mystery Class Graph • Longitude Clues Worksheet • Equinox Sunrise Table • Interdisciplinary Clues 	New Vocabulary (Opt.): <ul style="list-style-type: none"> • • • • • 	
Anticipatory Set/Introduction [Inquiry Question is required] (Req.): What happens as locations on Earth rotate into and out of the sun's light each day?		
Instructional Sequence/Procedure (Req.): <ol style="list-style-type: none"> 1. For ten consecutive weeks, students will record their local sunrise and sunset times on their Data Sheets, calculate and graph the photoperiod of their community. 2. They will also record and graph the sunrise and sunset times from ten secret Mystery Class locations and calculate those photoperiods. 3. During the summer solstice, the students will be given a Longitude Clues Worksheet and an Equinox Sunrise Table which will be used to calculate and record the Longitude for each Mystery Class location. 4. As the students interpret the data, they will refer to a World Atlas to locate the quadrant where they will hypothesize the location of each mystery city. 5. During week six, students will begin receiving Interdisciplinary Clues about the climate, geography, history and other facts about each Mystery Class. They will conduct online key word searches based on these clues. 6. Once this information is analyzed and the ten mystery classes are located, the students will submit the absolute locations (latitude and longitude) and place names to the Journey North Mysetery Class website. 7. Students will be returned to the unit when the official Big Reveal! is announced. They will learn if they were correct in their analysis and "meet" each of the mystery classes via the internet. 8. 9. 		

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Formative Evaluation (Req.): Class participation and understanding

Assessment (Req.): Students can use Google Earth to locate the mystery classes.

Iowa Core Curriculum Standards Used (Req.):

- Geography, grade 6-8: Understand the use of geographic tools to locate and analyze information about people, places, and environments.
- Geography, grade 6-8: Understand how physical and human characteristics create and define regions.
- Geography, grade 9-12: Understand how cultural factors influence the design of human communities.
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Common Core Curriculum Standards Used (Opt.):

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NGS Standards Used (Req.):

- How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information
- The physical and human characteristics of places
- How culture and experience influence people’s perceptions of places and regions
- The characteristics, distribution, and complexity of Earth’s cultural mosaics
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Five Themes of Geography Used (Req.):

- Location

School District Standards and Benchmarks (Opt.):

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21 st Century Universal Constructs (Opt.):	
Other Disciplinary Standards (Opt.): <ul style="list-style-type: none">•••••	
Other Essential Information (Opt.):	
Other Resources (Opt.): <ul style="list-style-type: none">• http://www.learner.org/jnorth/mclass (NOTE: handouts, worksheets, and data change each year. This is the homepage where all the information for the lesson plan is located.)•••	