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RECLAIMING THE SEA: POLDERS IN THE NETHERLANDS

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Grade Level: 7th grade

Purpose/Overview:

To acquire understanding and importance of polders and analyze how humans have adapted the environment in the Netherlands.

National Geography Standards from *Geography for Life*

Geographic Elements & Standards:

Environment and Society --

14: How human actions modify the environment

Oklahoma C³ Standards for the Social Studies:

Grade 7 World Geography: Eastern Hemisphere

Literacy Skills Standard 1: The student will develop and demonstrate Common Core Social Studies reading literacy skills.

C. Integration of Knowledge and Ideas

7. Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.

Literacy Skills Standard 2: The student will develop and demonstrate Common Core Social Studies writing literacy skills.

A. Text Types and Purposes

2. Write informative/explanatory texts, including the narration of historic events, scientific procedures/experiments, or technical processes.

f. Provide a concluding statement or section that follows from and supports the information or explanation presented.

Content Standard 5: The student will analyze the interactions of humans and their environment in the Eastern Hemisphere.

2. Evaluate the effects of human modification of and adaptation to the natural environment including the

B. Creation of living space through the drainage of seawater and the system of dikes in the Netherlands.

Geographic Themes: Human Environment/ Interaction

Objectives:

Students will...

1. Discover how the Dutch reclaimed land from the sea
2. Analyze how humans change the environment to meet their needs
3. Evaluate the effectiveness of the polders in the Netherlands

Materials:

- Class sets of articles (included in this lesson & available online), The Netherlands maps, description paragraph and essay prompt
- Access to the Internet to show satellite photos
- LCD or overhead projector

Time Frame: 1 60-minute period

Procedures:

1. The teacher will make copies of a class set of "History of Dikes and Polders in The Netherlands," "Polders and Dikes Along the North Sea, the Netherlands," Paragraph Writing Prompt and the Conclusion Paragraph Rubric.
2. The students will read the "History of Dikes and Polders in the Netherlands."
3. The teacher will discuss the paragraph with the students.
4. The teacher will upload the satellite picture of polders in the Netherlands on an overhead projector or monitor display unit.
5. The students will read "Polders and Dikes Along the North Sea, the Netherlands."
6. The teacher will show the short video clip from <http://youtu.be/TjXvHM6M9l8>
7. The students will write a concluding paragraph on the worksheet provided.
8. The teacher will grade the students using the Conclusion Paragraph Rubric.

Assessment Options:

See grading rubric

Resources:

- Printed text on Polders and Dikes and satellite photos of polders in The Netherlands
http://www.lpi.usra.edu/publications/slidesets/humanimprints/slide_11.html
http://upload.wikimedia.org/wikipedia/commons/2/2c/Satellite_image_of_Flevopolder,_Netherlands_%285.48E_52.43N%29.png
<http://www.sciencephoto.com/media/181215/enlarge>
<http://www.sciencephoto.com/media/181154/enlarge>
<http://www.masterfile.com/stock-photography/image/872-06052733/Satellite-View-of-Netherlands>
- Maps of The Netherlands
<http://www.planetware.com/map/netherlands-land-reclamation-on-the-north-sea-coast-map-nl-nl2.htm>
<http://geography.about.com/od/findmaps/ig/Country-Maps/Netherlands-Map.htm>
- Article on Land Reclamation history in The Netherlands
<http://geography.about.com/od/specificplacesofinterest/a/dykes.htm>
- YouTube video "Floating Dutchmen: Holland builds homes on water (1:36)
<http://youtu.be/TjXvHM6M9l8>

- Definitions of terms in vocabulary from <http://Dictionary.com/> and <http://education.yahoo.com/reference/dictionary/>
- Photo of wind turbines in The Netherlands
<http://www.fredhoogervorst.com/oni.app/local/upload/07034.jpg>
- Conclusion Paragraph Rubric
<http://www.achievementstrategies.org/docs/MELcon/ConPara.pdf>

Extension and Enrichment/Simplification: To further enhance this lesson, students could create a polder using clay to build the model of a dike and demonstrating how the water is blocked. Also, students could write about whether the use of dikes to create polders is a reliable option for the Dutch people.