Lesson Title
Where are we? (The Geography of Transportation)

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Lesson Overview
This lesson will engage students in collaborative communication using ePals digital penpals and class Wiki pages to explore and assess the factors, variables, and uses related to transportation in different geographic locations of the world.

Curriculum Subjects
- Language Arts
- Social Studies

Estimated Duration
5-6 hours (split over several days due to need for ePal email correspondence)

Grades
Suitable for grades 5-8

Curriculum Goals
- Students adjust their use of spoken, written, and visual language (e.g., conventions, style, vocabulary) to communicate effectively with a variety of audiences and for different purposes.
- Students employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes.

- Social studies programs should include experiences that provide for the study of people, places, and environments.
- Social studies programs should include experiences that provide for the study of how people organize for the production, distribution, and consumption of goods and services.
- Social studies programs should include experiences that provide for the study of global connections and interdependence.

Objectives
Students will be able to...
- Compose a friendly letter
- Identify the most common geographical features located near major cities
Indicate three common natural resources located near smaller towns and villages across the world.

NETS Standards

2. Communication and Collaboration
Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:

a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.

b. communicate information and ideas effectively to multiple audiences using a variety of media and formats.

c. develop cultural understanding and global awareness by engaging with learners of other cultures.

d. contribute to project teams to produce original works or solve problems.

3. Research and Information Fluency
Students apply digital tools to gather, evaluate, and use information. Students:

a. plan strategies to guide inquiry.

b. locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.

c. evaluate and select information sources and digital tools based on the appropriateness to specific tasks.

d. process data and report results.

Prerequisites

Before engaging in this lesson, students must know or be able to...

- Use a web browser
- Recognize and use basic map features

Lesson Procedure

Introductory – Preparatory activities:

Teacher Preparation
You will need to be sure to set up ePals and a class wiki in advance. These videos can help you start that process:

- How to Set Up ePals (for teacher): http://www.youtube.com/watch?v=Gz5xZQYOobg
- PB Wiki Setup Tutorial: http://www.youtube.com/watch?v=neHt9G3R7TE

Activity Introduction
This lesson will introduce students to the concepts of using the Internet for digital communication and telecollaboration. Start by holding a whole-class discussion about these concepts. Ask students:

- What might be some benefits of long-distance communication?
- Who would be useful to communicate with?
- Why and how is collaboration useful when creating products or solving problems?
- What types of tools and technology could help us with long-distance communication and collaboration?

Information presentation and information processing (analysis/synthesis) activities:

After discussion, introduce students to two basic examples of communication and collaboration tools: email and wikis:

- HowStuffWorks - How Email Works: http://www.youtube.com/watch?v=-IOOZt6x4o
- Animated Email Video: http://www.youtube.com/watch?v=YBzlPmx3xTU
- Wikis in Plain English: http://www.youtube.com/watch?v=-dnL00TdmLY
- What is a Wiki?: http://www.youtube.com/watch?v=ZmByB0sIPog

Application activities:

Part 1: Establishing Connections (ePals)

In this activity, students will communicate with digital penpals in another country via the ePals website/email service. To learn how to do this, watch How to Send an ePals Email: http://www.youtube.com/watch?v=7FO01wKxwJs
Students will write at least three letters:

1) In the first letter, students will describe what daily life in their community is like. Students will explain what goods and services are available, what residences are like, and what types of jobs people have (as well as how they get to those jobs.)

2) In the second letter, students will brainstorm ideas and predictions about how transportation will change in the future and why. In addition, each student should ask for his/her ePal's feedback about their thoughts -- whether the student in the other country agrees, and why or why not?

3) The last letter will be written at the end of this lesson after Part III. The foreign student will also share his/her ideas with the U.S. student; each student provides feedback on the other student's ideas for how to improve transportation, based on their own experiences as well as the shared learning and resources that have occurred.

Activity 2: Exploring the World (A Virtual Global Field Trip)

In this part of the activity, students will use Google Earth to examine features, terrain, and distances between different areas in the world to get a better idea of why and how certain transportation systems are used. As students explore, they should answer the following questions in a journal which will then be entered into an online Wiki entry about their home town. To see more about how to use Google Earth, watch a Google Earth Tutorial video: http://www.youtube.com/watch?v=RYapu-TDW30
1) View your home address. Zoom out until you can see your town or city. Record answers to the following in your journal:

- What is the layout of the city like? (Describe in your own words -- does it center around a main street? Does it use a grid system? Are homes close to shops or services? Are different types of businesses mixed together or separated?)
- What services are available?
- How far are these services from your home?
- What are the closest land and geography features (mountains, forests, deserts, rivers, lakes, oceans, etc)?
- What goods can you get in town?
- What goods are created in your town (or nearby)?
- Are those products only used locally, or are they sent to other places?
- What types of transportation are available? (cars, trucks, bicycles, train, subway, buses, airplanes, etc)

2) View the home town/city of your ePal. Your ePal will provide answers to these same questions in the Wiki.

3) Use the distance tool to determine the distance between your residence and your ePal's residence. What geographic obstacles must be crossed if you were to travel between these two sites?

4) Explore the features of the capital city and of a small rural town located in another country (on another continent.) Answer as many of the above questions as you can.

Activity 3: Contribute to the Collaborative Wiki

In this activity, students in the class will combine efforts with their ePals to create a wiki detailing the natural environments, infrastructure and civil planning, and goods and services of their home towns as well as other places on Earth. These videos demonstrate how to create/edit the class wiki pages:

- PBWiki - Getting Started: http://www.youtube.com/watch?v=A204JCQGQy0
- PBWiki - Create a Page (en espanol): http://www.youtube.com/watch?v=XH-ezZ8vvrw
1) Enter at least one new information about your home town which another student has not already entered into the Wiki. Your ePal class will do their same for their home town.

2) Create a Wiki entry for one capital city and one rural city in a country that has not yet been written about in the Wiki. Describe the same information you found for your home town. You may use Google Earth to see maps, terrain, and photos of the area.

Closure/review activities:

Based on the data in the wiki, students should summarize in what transportation needs are likely to exist considering the following conditions:
   a) Use of goods that are not produced locally.
   b) Passenger vs. cargo
   c) Rural vs. Urban
   d) Affected by different climates and terrains

Write a letter to your ePal with your summary and see if they agree (they should be using the same collaborative Wiki for data.) Discuss back and forth until you've come to a joint agreement or conclusion about the transportation needs for different scenarios, and ideas for how those needs might be met.

Assessment / Evaluation

- Wiki Contribution: (4) Contributed more than one unique and complete entry to class wiki; (3) Contributed one unique and complete entry to class wiki; (2) Contributed incomplete or duplicate entry in wiki; (1) Contribution to wiki is incomplete and not usable by other students.
- ePal Email Rubric: http://rubistar.4teachers.org/index.php?screen=ShowRubric&rubric_id=1904784&

Accommodations / Differentiation

- Cognitive Difficulties: Provide text-to-speech software to allow emails from ePals to be spoken to the student.
- Physical Difficulties: Use mouse alternatives for pointing and manipulating Google Earth. Allow creation of Wiki and ePals messages through use of voice recognition software such as Dragon Naturally Speaking.
- Sensory Difficulties: Google Earth allows zooming which may assist students with vision difficulties. Web browser settings may also be adjustment to make Wiki and ePals text easier to read. For the blind, there is no good alternative for the Google Earth activity, but students may work with a partner who can explain the visuals. However, text-to-speech may be used the same as for low-performing readers. Hearing impairment will only affect students during video tutorials, and may be mitigated through closed-captioning, transcripts, or written tutorial instructions.
- At-Risk Students: The video resources contained in this lesson, the hands-on Google Earth model/simulation, and the ability to...
interact with peer students should all benefit and empower at-risk students.

- **GATE Students**: GATE students may create helpful resources for other students by marking and tagging valuable information in Google Earth and sharing those marks with classmates.

### Materials, Resources, and Equipment

#### Required hardware/software:
- Computers with Internet connection (at least one for every 2 students)
- **Google Earth**: http://earth.google.com (free to download and install)

#### Teacher setup:
- **How to Set Up ePals (for teacher)**: http://www.youtube.com/watch?v=Gz5xZQYO8g
- **PB Wiki Setup Tutorial**: http://www.youtube.com/watch?v=neHt9G3R7TE

#### Video resources:
- **HowStuffWorks - How Email Works**: http://www.youtube.com/watch?v=-IOOZtlx_4o
- **Animated Email Video**: http://www.youtube.com/watch?v=YBzLPmx3xTU
- **Wikis in Plain English**: http://www.youtube.com/watch?v=-dnL00TdmLY
- **What is a Wiki?**: http://www.youtube.com/watch?v=ZmByB0sIPog
- **How to Send an ePals Email**: http://www.youtube.com/watch?v=7FO01wKxvJs
- **Google Earth Tutorial**: http://www.youtube.com/watch?v=RYapu-TDW30
- **PBWiki - Getting Started**: http://www.youtube.com/watch?v=A204JcGQiY0
- **PBWiki - Create a Page** (en espanol): http://www.youtube.com/watch?v=XH-ezZ8vrvw

Create a [free website](http://www.youtube.com/watch?v=XH-ezZ8vrvw) with