Understanding by Design:

Virtual Road Trip Project

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Content	Technology
Stage 1 –Desired Results	
Reading/Writing Standards:	**ISTE Standards**

Student *3rd grade, KS*
 Geography Standard
 Has a working knowledge of spatial organization of Earth's surface.
     Benchmark 1, Indicator 2: Student uses a data source as a tool.
     (**Assessed Indicator on 6th grade KS state assessment.)
	Student *3-5 grades*
	 NETS*S Standard 2
	 Student will use digital-imaging technology to modify or create works of art for use in a digital presentation.
	     Benchmark A: Student interacts, collaborates, and publishes with peers using a variety of digital environments and media.

Student *3rd grade, KS*
 Geography Standard
 Has a working knowledge of spatial organization of Earth's surface.
     Benchmark 2, Indicator 1: Student identifies the physical characteristics of a community. (**Assessed Indicator on 6th grade KS state assessment.)
	Student *3-5 grades*
	 NETS*S Standard 4
	 Student uses critical thinking skills to plan and conduct research & manage projects.
	     Benchmark B: Student plans and manages activities to complete a project.

Student *3rd grade, KS*
 Writing Standard 1
 Writes effectively for a variety of audiences, purposes, and contexts.
     Benchmark 1, Indicator 2: Student practices writing by using personal experience, observations, and prior knowledge.
	Teacher
	 NETS*T Standard 2
	 Design & develop digital-age learning experiences & assessments.
	     Benchmark A: Teachers design or adapt relevant learning experiences that incorporate digital tools to promote student learning and creativity.

	Teacher **NETS*T Standard 2** Design & develop digital-age learning experiences & assessments. *Benchmark C*: Teachers customize learning activities to address students' diverse learning styles and working strategies.

Understandings:	Understandings:
Students will understand that… *Students will understand that that states have different geography.	*Students will understand that…* *Students will understand that applications on the internet can provide realistic experiences.
Students will know…. *Students will know the landforms found in the United States.	*Students will know…* *Students will know what landforms look like after viewing Google Earth.
Students will be able to… *Students will be able to describe various landforms.	*Students will be able to…* *Students will be able to apply their knowledge of map skills to Google Map.
Essential Question:	**Essential Question:**
* Do students have an understanding of landforms and climates in various parts of the United States? * How do different landforms affect travel?	* Can students experience a "road trip" via the internet? * How can students show their understanding of landforms through a blog entry?

Stage 2 –Assessment Evidence

Performance Tasks:	Performance Tasks:
1. Students will figure out the driving directions of their Road Trip from Kansas to a National Park. 2. Students will identify the landforms they will travel through on their way to the National Park. 3. Students will present the information about their National	1. Students will use Google Map Directions (http://maps.google.com/) to find their driving directions. 2. Students will use Google Maps to identify the landforms they will travel through. They will look at realistic views of the landforms using Google Earth.

Park and Road Trip to the class. 4. Students will show their ability to identify landforms by presenting to the class. 5. Because each group may only encounter certain landforms on their Road Trip to their National Park, they will look at each other's blogs and comment on at least two that have landforms different from their own.	3. Students will use the Eiki projector and a laptop to showcase their Blog entry, including its pictures. 4. To show their ability to identify landforms, students will pull up their National Park using Google Earth, and explain each landform. 5. Students will use the laptops to view and comment on each other's blog entries.
Other Evidence:	**Other Evidence:**
• Partner Evaluation • Grading students' research	• Blog Entry Rubric (*see attached*) • Blog Comments (at least two per student)

Stage 3 – Learning Plan/Activities

1. To introduce this project, I will present to the students the idea of going on a "Virtual" Road Trip. We will have already read in the social studies text about landforms found in the United States (plateaus, hills, mountains, plains). 2. Students will list all states they will go through from Kansas to the National Park. 3. Students will research their National Park, finding out about its Geography, Climate, and Things To Do. 4. Students will write a blog entry, simulating that they are on a road trip. They will blog about the landforms they cross, and information about their National Park. They will also include 2 pictures of their National Park.	1. To introduce this project, I will present to the students the idea of going on a "Virtual" Road Trip. I will use this Prezi to introduce students to the project: http://prezi.com/cfzfitowwilq/united-states-national-parks/ Each student partnership will travel from Kansas to a National Park, and identify the landform(s) they will encounter on their way. 2. Students will use Google Map Directions to figure out what states they will travel through on the way to their National Park. 3. To research their National Parks, students will visit website: (http://www.nps.gov/index.htm) 4. Students will use kidblog.org to blog about their trip. Students will use http://www.pics4learning.com and the category of "National Parks" to find their pictures.

VIRTUAL ROAD TRIP Grading Rubric
Miss Mallon's 3rd Grade

5	4	3	2	1
BLOG/TEXT	**BLOG/TEXT**	**BLOG/TEXT**	**BLOG/TEXT**	**BLOG/TEXT**
Included information, landforms, climate & activities to do	Included three of four informational points	Included two of four informational points	Included one of four informational points	Barely or did not include informational pionts
Narrative was clear, direct, and had little or no errors	Narrative was clear, direct, with few errors	Narrative was mostly direct, with few errors	Narrative was hard to follow, with many errors	Writing was unclear, with many errors
BLOG/PICTURS	**BLOG/PICTURES**	**BLOG/PICTURES**	**BLOG/PICTURES**	**BLOGS/PICTURES**
2 pictures included, clearly labeled	2 pictures included, unclearly labeled	1 picture included, clearly labeled	1 picture included, unclearly labeled	No pictures or labels included
Both pictures completely support blog	Both pictures mostly support blog	One picture completely supports blog	One picture mostly supports blog	Neither picture supports blog
OTHER	**OTHER**	**OTHER**	**OTHER**	**OTHER**
Worked well with partner the entire project	Worked well with partner through most of project	Mostly worked well with partner, with some problems	Had some problems with partner	Did not work well with partner, had many problems
Attempted to solve on own all problems that came up	Attempted to solve on own most problems that came up	Attempted to solve on own some problems that came up	Attempted to solve on own only a few problems that came up	Made no attempt to solve on own any problems that came up
Student spoke in a loud, clear voice with expression/Replied to two blogs	Student spoke in a loud, clear voice with expression/Replied to one blog	Student spoke in a loud, clear voice with some expression/Replied to two blogs	Student spoke in clear voice with little expression/Replied to one blog	Student spoke in quiet voice with little or no expression/Replied to no blogs

Research-Based Rationale

Imagine a world where a group of 3rd graders in the middle of Kansas could go on a field trip to a National Park, without missing a single day of class or spending a single dollar. As unbelievable as this may seem, it is actually possible. The entire world is now at the fingertips of a student, and it is all thanks to the internet. A virtual field trip, such as the one outlined in this project, is an opportunity to give students an authentic activity that allows them to show their understanding of the concept of landforms. When students create a blog entry for this project, they will use this writing outlet to show their understanding. It is also a chance to use performance-based assessment.

A blog is defined as "a web application which contains periodic time-stamped posts on a common webpage" (Mason & Rennie, 2006, p. 14). With the many varied learning styles students bring to the classroom, a blog can be a wonderful alternative to paper-and-pencil writing. For one thing, a blog gives "the ability to create spaces where students can collaborate with others online" (Richardson, 2009, p. 23). Students will complete this virtual road trip with a partner; since both students will have access to the blog, they will be better able to combine their thoughts and information about landforms. As Richardson (2009) points out, blogging is an ideal way to incorporate writing across the curriculum in addition to helping students realize the connections between different disciplines.

With high-stakes testing on the rise in the United States, it is important to remember the many benefits of performance-based assessment. This style of assessment allows students to truly show what they understand, and then what they can do with that understanding. A teacher can easily determine what a learner knows about the concept and "focus on higher-order thinking skills and critical reasoning" (Simonson, Smaldino, Albright & Zvacek, 2009, p. 272). Traditional standardized tests "cannot be appropriately used to measure many higher level thinking abilities" (Meisels, 2010, First bullet) and levels of Bloom's Taxonomy, such as analysis (studying and comparing) or synthesis (creating or developing). In this particular Virtual Road Trip project, students are given many opportunities to demonstrate their understanding of important geography and writing skills. Blogging is an occasion for asynchronous communication, which is an assessment tool much like a message board (Simonson, Smaldino, Albright & Zvacek, 2009). Students have another chance to showcase their understanding of landforms by presenting their National Park using Google Earth. When students present to their classmates, they are performing their knowledge; it will become clear to the teacher if they do not understand the concepts.

C. Roger's Experiential Learning Theory goes hand in hand with performance-based assessment. The idea behind this theory is that it requires personal involvement in a project, where a student is self-initiated and has a chance to evaluate their own work (Kearsley, 2010). By including a variety of learning activities in this project, and pairing students in regards to their learning style, all

students are given a chance to be successful and show their understanding. As the University of California, Davis (2010) says on their experiential education website, "If your goal is to have a student understand the concepts at a level they can apply to new situations, experiential education is the best way to develop that level of mastery." By viewing landforms in Google Earth, students can eventually relate that knowledge to their real world, when and if they find themselves traveling to areas away from Kansas.

As the Chinese Proverb says, "Tell me, and I will forget. Show me, and I may remember. Involve me, and I will understand" (University of California, Davis, 2010, FAQ 2). By requiring students to show their understanding of a concept through performance-based assessment such as a blog entry or a presentation to classmates, this project puts to use the ideas of the Experiential Learning Theory. It provides a variety of learning activities for students of all learning styles and allows for a teacher to evaluate a student's active understanding.

References

Kearsley, G. (2010, September 25). *The theory into practice database*. Retrieved from http://tip.psychology.org/index.html

Mason, R., & Rennie, F. (2006). *Elearning: the key concepts*. New York, NY: Routledge.

Meisels, S. (2010). Performance assessment. *Scholastic*, Retrieved from http://teacher.scholastic.com/professional/assessment/perfassess.htm

Richardson, W. (2009). *Blogs, wikis, podcasts, and other powerful web tools for classrooms.* Thousand Oaks, CA: Corwin Press.

Simonson, M., Smaldino, S., Albright, M., & Zvacek, S. (2009). *Teaching and learning at a distance*. Boston, MA: Pearson.

University of California, Davis. (2010). *Experiential education*. Retrieved from http://www.experientiallearning.ucdavis.edu

Resources

<u>Teacher</u>
Kansas Curricular Standards; Social Studies and Writing (http://www.ksde.org)

ISTE National Educational Technology Standards: Students and Teachers (http://www.iste.org)

Bloom's Taxonomy (http://www.nwlink.com/~donclark/hrd/bloom.html)

Prezi Presentation Tool (http://prezi.com/cfzfitowwilq/united-states-national-parks/)

<u>Student</u>
Social Bookmarking (http://www.portaportal.com) Guest Access: "bobcat3"

Kid's Blog Site (http://www.kidblog.org)

Google Map (http://maps.google.com)

Open Source Image Search (http://www.pics4learning.com)

National Parks Service (http://www.nps.gov/index.htm)