Lesson Title: The Land Bridge Theory

Lesson Topic: According to the Landbridge theory, Native Americans migrated from Asia to North America across the land bridge during the Ice Age, following food sources such as the wooly mammoth.

SC Standards and Indicators:
Standard 4-1: The student will demonstrate an understanding of political, economic, and geographic reasons for the exploration of the New World.

Indicator: 4-1.1 Summarize the spread of Native American populations through the Landbridge Theory.

Academic Vocabulary: Archeologist, artifact, theory, Landbridge Theory, Ice Age, Asia & North America, hunter-gatherer

Lesson Materials:
- Picture examples of fossils for anticipatory set
- Internet connection w/SmartBoard connection
- Scott Foresman 4th grade textbook
- Pencil, paper, colored pencils
- Rubric for assessment

Lesson Set:

Content Objective(s):
Students will be able to explain the Landbridge Theory, and Infer from a map how the Native American population migrated to North America.

Literacy Objective(s):
- Create maps and mental maps to represent spatial relationships.
- Identify and explain the cause-and-effect relationships
- Write to inform and explain.
- Interpret visual information to deepen his/her understanding.
Lesson Importance

Being the first 4th grade standard, this lesson sets the base for understanding the concept of “theory” and the role that archeologists have in understanding our history. The Landbridge Theory is an explanation of how Native Americans reached North America.

Connections to prior and future learning

PRIOR LEARNING: The Landbridge Theory has not been taught, but students probably have been introduced to the term archeologists. The lesson begins by reviewing archeology.

FUTURE LEARNING: This standard sets the base for 4-1.2 Compare the everyday life, physical environment, and culture of the major Native American groupings; including, the Eastern Woodlands, the Plains, the Southwest, the Great Basin, and the Pacific Northwest.

Anticipatory Set/ Hook (Engage)

1) Students will attempt to identify pictures of fossils. (See bottom of Lesson Plan)
2) As a class, complete “Artifact Challenge” from http://www.pbs.org/beringlandbridge/explorations/artifact/index.html
3) Display the quote “Nothing changes more constantly than the past: for the past that influences our lives does not consist of what actually happened, but of what men believe happened”, by Gerald White Johnson.
* Ask students what they think the quote means.

Skill Development

Initial “explain” portion of the lesson. Introduce vocabulary, explain/demonstrate/model the skill required for the literacy objective, introduce content components.

The content portion is only a brief introduction; the bulk of the student learning will take place during the guided practice activity.

Introduce content components

Tell students that archeologists are people that study artifacts and fossils. Archeologists use these puzzle pieces to help develop theories. One such theory is called “The Landbridge Theory”.

“I do” Skill from literacy objective introduce/explain/model

Build Background:
* Ask students who they think were the first people to come to America and how they got here. Tell them that today, many immigrants come to America through Ellis Island in New York. Seeing the Statue of Liberty makes them feel that that have
fulfilled their dream of a better life. “The Landbridge Theory” states that the first people did not migrate looking to fulfill a dream, it was a migration based on necessity for survival.
*Use [http://www.nps.gov/bela/historyculture/index.htm](http://www.nps.gov/bela/historyculture/index.htm) for a great background site.

**Guided Practice**

This is the inquiry portion of the lesson, student-centered & often cooperative learning strategies used, teacher acting as facilitator, also known as *Explore*.

<table>
<thead>
<tr>
<th>“We do” Activity Description</th>
<th>*Use the National Park Service Lesson Unit activities. <a href="http://www.nps.gov/akso/ParkWise/Teachers/Treasures/BELA_Footprints/overview.htm">http://www.nps.gov/akso/ParkWise/Teachers/Treasures/BELA_Footprints/overview.htm</a> (many activities are inside the unit) *Guide the class through the activity titled “The Lost Continent of Beringia” <a href="http://www.nps.gov/akso/ParkWise/Students/ReferenceLibrary/BELA/BeringiatheLostContinent.htm">http://www.nps.gov/akso/ParkWise/Students/ReferenceLibrary/BELA/BeringiatheLostContinent.htm</a> *Read the articles together aloud. *Lead the class through the animated Landbridge Map included in the above site.</th>
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<tbody>
<tr>
<td>Checking for Understanding - “Informal” Assessment</td>
<td>Informal assessment is made through questioning and discussion of websites and activities.</td>
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**Closure**

Teacher will re-visit content and answer students’ questions developed during the Guided Practice component. Summarize the lesson, clarify content, and revisit content and literacy objectives.

**Content Solidified**

- Remind students that The Landbridge Theory is a theory created to explain how early Native Americans arrived in North America. The theory is based on artifacts and fossils found by archeologists. It states that millions of years ago, during a period known as The Ice Age, early people migrated from Asia to North America across a landbridge, which is today The Bering Strait. The people were classified as nomads because they followed their food source (wooly mammoth).
# Independent Practice

## “You Do”

- Students will read “Migration to the Americas” pgs. 54-57 in their textbook. (Scott Foresman) Individually or in pairs. *Before reading, the teacher should preview pages..pictures, maps..headings..*

- Students will work with a partner to verbally discuss, then answer the Review questions in their Social Studies journal.

- Students will create a map illustrating The LandBridge Theory, showing Pre- and Post- Ice Age changes. The map should show the migration routes that early Native Americans most likely took.

- Students will write a detailed explanation of The LandBridge Theory.

## Summative/ “Formal” Assessment

| Assessment | The student created maps and written explanation of the LandBridge Theory will be formally assessed using a rubric. (attached) |

## Differentiation

| During Lesson | Advanced learners can create an argument for more than one early migration theory based on information found at: “Was the Land Bridge the only way in to America? “ [http://www.nps.gov/BELA/historyculture/index.htm](http://www.nps.gov/BELA/historyculture/index.htm)

Lower level readers will be paired with stronger readers, and use the “teacher/coach” buddy reading format. |

| Assessment | Informal |
**Image websites for discussion in Anticipatory Set:**

Questions for open discussion:
* What do you think it is?
* How old do you think it is?
* Where do you think it was found?
* Are the animals still found alive today?

1) [http://www.fossilmuseum.net/Fossil_Sites/beargulch/caridosuctor-populosum/caridosuctor-populosum.htm](http://www.fossilmuseum.net/Fossil_Sites/beargulch/caridosuctor-populosum/caridosuctor-populosum.htm)

2) [http://www.fossilmuseum.net/fossils/starfish/Australaster-giganteus/Australaster.htm](http://www.fossilmuseum.net/fossils/starfish/Australaster-giganteus/Australaster.htm)

3) [http://www.fossilmuseum.net/Fossil_Galleries/Mammalia/Metailurus-major/Metailurus.htm](http://www.fossilmuseum.net/Fossil_Galleries/Mammalia/Metailurus-major/Metailurus.htm)

**Class activity during Anticipatory Set:**

In the Artifact Challenge, learn how professional archaeologists evaluate artifacts and then test your own skills by identifying 10 items from the Bering Land Bridge. When you're done, help the pros identify a mystery object from Alaska's past.

Use with Closure:

Routes of the First Americans
http://drarchaeology.com/map/beringamigration.jpg
## Rubric for Assessment:

**Map of (“Beringia”) Pre- & Post- Ice Age with a written explanation of the LandBridge Theory**

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<th>2</th>
<th>1</th>
<th>0</th>
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</thead>
<tbody>
<tr>
<td>Post Ice-Age Map of Beringia</td>
<td>Accurately displays &quot;Beringia&quot; after the end of the Ice Age. The map is correctly labeled.</td>
<td>Partially displays &quot;Beringia&quot; after the end of the Ice Age. There are a few mistakes or important facts left out or unlabeled.</td>
<td>An attempt is made to display &quot;Beringia&quot; after the end of the Ice Age, but many errors have been made or left out.</td>
<td>No Map was attempted.</td>
</tr>
<tr>
<td>Migration route</td>
<td>All of the labels/features can be read easily. Arrows accurately show migration from Asia to NA.</td>
<td>Most of the labels/features can be read easily. Arrows mostly show migration from Asia to NA.</td>
<td>A few of the labels/features can be read easily. Arrows somewhat show migration from Asia to NA.</td>
<td>None of the labels/features can be read easily. Arrows do NOT show migration from Asia to NA.</td>
</tr>
</tbody>
</table>
Works Cited:

“Artifact Challenge”
http://www.pbs.org/beringlandbridge/explorations/artifact/index.html

http://www.nps.gov/bela/historyculture/index.htm

http://www.nps.gov/akso/ParkWise/Teachers/Treasures/BELA_Footprints/overview.htm

animated map of Beringia:
Manley, W.F., 2002, Postglacial Flooding of the Bering Land Bridge: A Geospatial Animation: INSTAAR, University of Colorado, v1,
http://instaar.colorado.edu/QGISL/bering_land_bridge

“The Lost Continent of Beringia”
http://www.nps.gov/akso/ParkWise/Students/ReferenceLibrary/BELA/BeringiatheLostContinent.htm

“Routes of the First Americans”
http://drarchaeology.com/map/beringamigration.jpg

“Was the Land Bridge the only way in to America? “
http://www.nps.gov/BELA/historyculture/index.htm

http://www.fossilmuseum.net/Fossil_Sites/beargulch/caridosuctor-populosum/caridosuctor-populosum.htm

http://www.fossilmuseum.net/fossils/starfish/Australaster-giganteus/Australaster.htm
http://www.fossilmuseum.net/Fossil_Galleries/Mammalia/Metailurus-major/Metailurus.htm

Scott foresman Building A Nation: Social Studies (Scott Foresmen Social Studies 2005)