

Earth's Features



Teacher's Guide

Processes that Shape the Earth

Teacher's Guide

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Written by teachers and administrators
from public school districts within
the borders of the NYS Midwest Joint
Management Team in conjunction with
the BOCES 4 Science Educators

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Foreword

BOCES 4 Science is a collaboration between four New York State BOCES (Board of Cooperative Educational Services) within the Midwest Region. This collaborative of science educators came together to respond to the need for instructional resources based on the New York State pK-12 Science Learning Standards (NYSSLS). The research behind the Next Generation Science Standards (NGSS) and the National Research Council (NRC) publication, *A Framework for K-12 Science Education* is the basis for the NYSSLS and the BOCES 4 science units.

We believe that the future health and well-being of our world depends on scientifically literate people making informed decisions. The development of scientific literacy begins at the earliest grades. Elementary children must have concrete experiences upon which to hook their understanding and new vocabulary – this is especially true in the discipline of science. We embrace the notion that students should experience phenomena and solve real problems to learn about the world. We strive to present lessons and materials that will make high quality science instruction available for all students through cost-effective resources for teachers.

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About this Unit

Overview

This unit covers science concepts about Earth's features and how Earth's surface changes. The main topics covered in this unit include using maps and being able to find and map the shapes and kinds of land and water features in an area. As a follow up, students will use their mapping skills to develop models to represent the shapes and kinds of land and bodies of water in an area. Students will identify whether water on Earth is liquid or solid. Using several sources students will provide evidence that Earth events can occur quickly or slowly. Finally, students will use an engineering design model to compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.

Scheduling

This unit is scheduled to be in the classroom for 13 weeks. There are approximately 25 science instructional sessions in this unit, based on 30-40 minutes each. There are several suggestions on ideas to shorten the lessons throughout the unit. Adjust your schedule accordingly.

Materials to Obtain Locally

Some lessons require materials that are NOT supplied in the kit. These materials can be easily obtained by the teacher or the students. Materials that will need to be provided are indicated with an asterisk in the lesson materials list and are also listed below.

chart paper & markers – all lessons
crayons or colored pencils – L2, 3, 5,
glue sticks, tape, scissors – L7, 11,12
students desks – L9
timer – L9
water - L10, 11, 12
large pebbles - L12 (optional)
various supplies for Lessons 7, 11 and 12 in which students will build a model, and create structures to protect a beach front from wind and water (optional)

Three Dimensions

Each of the BOCES 4 Science lessons includes at least one element from each of the three dimensions identified in the NYSSLS. The lesson page identifies the specific elements targeted; the NYSSLS topic page is included after the Features that Support 3-D Learning page.

Science and Engineering Practices (SEP)

– These are the major practices that scientists employ as they investigate and build models of their understanding of the world. They also include key practices used by engineers as they design and build systems.

Disciplinary Core Ideas (DCI)

– Selected to represent four major domains: the physical sciences; the life sciences; the earth and space sciences; and engineering technology, and the applications of sciences.

Crosscutting Concepts (CCC)

– These big ideas have application across all domains of science and provide one way of linking across the domains of the DCI's. In addition, they link to ideas that are parts of other elementary subjects.

NYSSLS Shifts in Instruction

It is the intention of BOCES 4 Science that this unit provides lessons that demonstrate the following shifts in instruction:

- **Explaining Phenomena or Designing Solutions to Problems:** The unit focuses on supporting students to make sense of a phenomenon or design solutions to a problem.
- **Three Dimensions:** The unit helps students develop and use multiple grade-appropriate elements of the SEPs, CCCs, and DCIs which are deliberately selected to make sense of phenomena or design a solution to a problem.
- **Integrating the Three Dimensions for Instruction and Assessment:** The unit will elicit student artifacts that show direct, observable evidence of three dimensional learning.
- **Relevance and Authenticity:** By taking advantage of student questions and experiences in the context of their homes, neighborhood and community, the lessons in this unit will motivate student sense-making or problem-solving.
- **Student Ideas:** This unit provides opportunities for students to express clarify, justify, interpret or represent their ideas and to respond to peer and teacher feedback.
- **Building on Students' Prior Knowledge:** Since student understanding grows over time, this unit identifies and builds on students' prior learning in three dimensions in such a way as it is explicit to both students and teachers.

Assessment:

Providing opportunities for assessment of learning and feedback to students is an important step in the educational process. This unit includes formative assessments and summative assessments. The teacher is encouraged to use a variety of informal or anecdotal assessment strategies.

Additional Features of this Unit

The **Earth's Features** unit also includes a Student Science Journal. A digital version of the Student Science Journal is available online at the BOCES 4 Science website. (A web address and password are located on a color insert in the Teacher's Guide.)

Additional resources for the teacher, such as the specific assessments, ELA and/or ELL supports, direct links to videos or websites mentioned in the teacher's guide, etc. can also be found on the BOCES 4 Science website.

Features that Support 3-D Learning

Look for these features in the Teacher's Guide:

NYS pK – 12 Science Learning Standards within each lesson provide the teacher with specific information about the Performance Expectation and the 3-Dimensions that are targeted by the instruction in this lesson.

Performance Expectations:

K-2-ETS1-2 – Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

Science and Engineering Practices

Developing and Using Models

Develop a simple model based on evidence to represent a proposed object or tool.

Disciplinary Core Ideas

ETS1.B: Developing Possible Solutions

- Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people.

Crosscutting Concepts

Structure and Function

- The shape and stability of structures of natural and designed objects are related to their function(s).

ELA/Math/Social Studies Connections:




ELA: 2R1

Math: NY-2.MD

Social Studies:

Throughout the Teacher's Guide, the 3-Dimensional Domains are color coded within the text so that teachers know to emphasize or explicitly point out to students this connection to either the **Science and Engineering Practices (SEPs)** and the **Crosscutting Concepts (CCCs)**. In addition, small boxes on the sides of the Procedure pages (see box in the blue column to the right) serve as a visual reminder, as well.

In addition, a small picture of the page(s) of the Student Science Journal (with answers) that students are using for each lesson has been included on the appropriate pages in the Teacher's Guide (see box to the right). This keeps the teacher from needing to go back and forth between various documents pertaining to a particular lesson.

Lesson 4 - Water Postcard Notes		
1. List 3-4 facts, circle rapid or slow and write the event that happens, and the object for each card.		
Ocean  Facts: 1. Largest, deepest 2. Salty, cover 70% of Earth 3. 4. Liquid Water Circle: Rapid or Slow Event Write the event: Hurricanes Object: Shells	Lake  Facts: 1. Land all around it 2. Large or small 3. Liquid, calm water 4. Partly frozen Circle: Rapid or Slow Event Write the event: Flood Object: Bobber	River  Facts: 1. Fresh water 2. Always moving or flowing 3. Mostly liquid 4. Sometimes frozen Circle: Rapid or Slow Event Write the event: Weather banks of river Object: River rocks



CCC: Crosscutting Concept(s):

Cause and Effect:

Events have causes that generate observable patterns.

New York State P-12 Science Learning Standards

Earth's Systems: Processes that Shape the Earth

Students who demonstrate understanding can:

- 2-ESS1-1. Use information from several sources to provide evidence that Earth events can occur quickly or slowly.**
[Clarification Statement: Examples of events and timescales could include volcanic explosions and earthquakes, which happen quickly and weathering and erosion of rocks, which may occur slowly.]
[Assessment Boundary: Assessment does not include quantitative measurements of timescales.]
- 2-ESS2-1. Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.*** [Clarification Statement: Examples of solutions could include different designs for using rocks, shrubs, grass, and trees to hold back wind, water, and land.]
- 2-ESS2-2. Develop a model to represent the shapes and kinds of land and bodies of water in an area.** [Assessment Boundary: Assessment does not include quantitative scaling in models.]
- 2-ESS2-3. Obtain information to identify where water is found on Earth and that it can be solid or liquid.**

The performance expectations above were developed using the following elements from the NRC document *A Framework for K-12 Science Education*:

Science and Engineering Practices

Developing and Using Models

Modeling in K–2 builds on prior experiences and progresses to include using and developing models (i.e., diagram, drawing, physical replica, diorama, dramatization, or storyboard) that represent concrete events or design solutions.

- Develop a model to represent patterns in the natural world. (2-ESS2-2)

Constructing Explanations and Designing Solutions

Constructing explanations and designing solutions in K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions.

- Make observations from several sources to construct an evidence-based account for natural phenomena. (2-ESS1-1)
- Compare multiple solutions to a problem. (2-ESS2-1)

Obtaining, Evaluating, and Communicating Information

Obtaining, evaluating, and communicating information in K–2 builds on prior experiences and uses

Disciplinary Core Ideas

ESS1.C: The History of Planet Earth

- Some events happen very quickly; others occur very slowly, over a time period much longer than one can observe. (2-ESS1-1)

ESS2.A: Earth Materials and Systems

- Wind and water can change the shape of the land. (2-ESS2-1)

ESS2.B: Plate Tectonics and Large-Scale System Interactions

- Maps show where things are located. One can map the shapes and kinds of land and water in any area. (2-ESS2-2)

ESS2.C: The Roles of Water in Earth's Surface Processes

- Water is found in the ocean, rivers, lakes, and ponds. Water exists as solid ice and in liquid form. (2-ESS2-3)

ETS1.C: Optimizing the Design Solution

- Because there is always more than one possible solution to a problem, it is useful to compare and test designs. (secondary to 2-ESS2-1)

Crosscutting Concepts

Patterns

- Patterns in the natural world can be observed. (2-ESS2-2), (2-ESS2-3)

Stability and Change

- Things may change slowly or rapidly. (2-ESS1-1), (2-ESS2-1)

Connections to Engineering, Technology, and Applications of Science

Influence of Engineering, Technology, and Science on Society and the Natural World

- Developing and using technology has impacts on the natural world. (2-ESS2-1)

Connections to Nature of Science

Science Addresses Questions About the Natural and Material World

- Scientists study the natural and material world. (2-ESS2-1)

New York State P-12 Science Learning Standards

observations and texts to communicate new information.

- Obtain information using various texts, text features (e.g., headings, tables of contents, glossaries, electronic menus, icons), and other media that will be useful in answering a scientific question. (2-ESS2-3)

Connections to other DCIs in second grade: **2.PS1.A** (2-ESS2-3)

Articulation of DCIs across grade-levels: **K.ETS1.A** (2-ESS2-1); **3.LS2.C** (2-ESS1-1); **4.ESS1.C** (2-ESS1-1); **4.ESS2.A** (2-ESS1-1), (2-ESS2-1); **4.ESS2.B** (2-ESS2-2); **4.ETS1.A** (2-ESS2-1); **4.ETS1.B** (2-ESS2-1); **4.ETS1.C** (2-ESS2-1); **5.ESS2.A** (2-ESS2-1); **5.ESS2.C** (2-ESS2-2), (2-ESS2-3)

Common Core State Standards Connections:

ELA/Literacy –

- RI.2.1** Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text. (2-ESS1-1)
- RI.2.3** Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text. (2-ESS1-1),(2-ESS2-1)
- RI.2.9** Compare and contrast the most important points presented by two texts on the same topic. (2-ESS2-1)
- W.2.6** With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers. (2-ESS1-1),(2-ESS2-3)
- W.2.7** Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations). (2-ESS1-1)
- W.2.8** Recall information from experiences or gather information from provided sources to answer a question. (2-ESS1-1),(2-ESS2-3)
- SL.2.2** Recount or describe key ideas or details from a text read aloud or information presented orally or through other media. (2-ESS1-1)
- SL.2.5** Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings. (2-ESS2-2)

Mathematics –

- MP.2** Reason abstractly and quantitatively. (2-ESS2-1),(2-ESS2-1),(2-ESS2-2)
- MP.4** Model with mathematics. (2-ESS1-1),(2-ESS2-1),(2-ESS2-2)
- MP.5** Use appropriate tools strategically. (2-ESS2-1)
- 2.NBT.A** Understand place value. (2-ESS1-1)
- 2.NBT.A.3** Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. (2-ESS2-2)
- 2.MD.B.5** Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem. (2-ESS2-1)

*The performance expectations marked with an asterisk integrate traditional science content with engineering through a Practice or Disciplinary Core Idea. The text in the "Disciplinary Core Ideas" section is reproduced verbatim from A Framework for K-12 Science Education: Practices, Cross-Cutting Concepts, and Core Ideas unless it is preceded by (NYSSED).

Where in the World Should Tina Live?

Vocabulary:

map
observe
predict
United States



Focus Question:

What can I observe and predict about mystery objects?

Lesson Synopsis

Learning Target(s):

I can use objects to ask questions and collect information.

I can identify a map of the United States and understand that there are different places or locations in the U.S.

Lesson Description:

This lesson introduces students to Tina, as a traveler who is ready to settle down near one of her family members (see the story line in the Teacher Background). Each of her family members has sent her an object or treasure from where they live. Tina sent the box of treasures to the class to **observe**, discuss, and **predict** where they came from. This inquiry and discussion helps drive the unit forward.

In the first part of the lesson, students are introduced to the objects Tina has sent them. Students have time to examine and ask questions about what the objects are and where they might be found. Then students are introduced to a **United States map**, which shows where each of Tina's family members lives. Students have the option to add places they have visited to the map of the U.S. that Tina has shown them. Throughout the unit Tina will send postcards from family locations she visits. The postcards describe the locations, events that happen in those locations, and hints at which objects come from each location.

Management

Materials

For the class:

Tina's Treasure box

Postcard, intro with map from Tina

Poster: Tina's U.S. Travel Map

Poster: Box insert enlarged

Tina's U.S. Travel Map displayed from BOCES 4 Science (B4S) website

Anchor Charts or graphic organizers* (The charts will be used to collect data throughout the unit. It is recommended to have 6 charts, one for each object and location. These charts should be saved for the last lesson when students will be writing a letter to Tina. They may need to reference the charts at that time.)

For each student:

Sticker dot (included, optional)

*provided by teacher

Lesson 1 Where in the World Should Tina Live? *cont.*

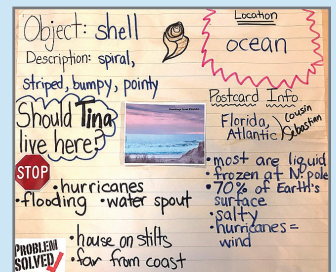
Preparation:

- The objects should be jumbled up in the box so that students do not know where they belong.
 - Correct order:
 - Pyrite – Mountain
 - Shell – Ocean
 - Sand – Coast
 - Bobber – Lake
 - Rock – River
 - Corn – Plains
- A set of anchor charts can be created so that students can predict where each object is from. Additional information can be added to the charts throughout the unit. If you create a chart, leave a space at the top to add the location after students have confirmed this later in the unit.
- Students have the option of sticking a small sticker dot on Tina's U.S. Travel map showing a location they have visited. Alternatively, you can project Tina's map (from the BOCES 4 Science website) on a white board or digital device and use the technology to create a red dot that can be cut and pasted onto the map for each student.
- There is a postcard from Tina with the travel map on it. You can take it out and write your address on it to make it look more authentic to the students. Please use a vis-à-vis pen only. Please use a damp cloth to wipe it off and allow to dry before returning. This can be done with all the postcards in the kit.

Teacher Background:

Earth is composed of many landforms including but not limited to mountains, valleys, plains, islands, coasts and water features such as oceans, lakes, ponds, rivers, and streams. These Earth features can be affected in many ways by fast and slow changes to Earth's surface. The landforms and water features in any area affect weather and climate which, in turn, affect the plants and animals (including humans) that live there. Plants and animals adapt to their conditions, but science and technology help people live more comfortably wherever they want.

It is critical with the objects as the phenomena to allow/guide students to ask questions that will help drive the unit. Questions that will help include; information about what types of land or water locations the objects came from; how it might be to live in one of the locations; what types of natural events happen in the different locations (erosion, earthquakes, flooding, droughts, tornados, etc...); or if there are ways to protect homes from these events.



Lesson 1 Where in the World Should Tina Live? *cont.*

Tina's Story Line:

Tina has been traveling and exploring all over the world, but now she is ready to settle down in the United States. Each of Tina's family members want her to settle down near them. Tina needs the students' help deciding where she should settle down. As she visits each place, she sends a postcard describing the location to the students. As the unit progresses, students gather information about landforms and water features from multiple sources, and learn how Earth's surface is affected by fast and slow changes. At the end of the unit, students make informed opinions and write to Tina to help her decide where she should live.

Standards

Performance Expectations:

2-ESS2-2 – Develop a model to represent the shapes and kinds of land and bodies of water in an area. [Assessment Boundary: Assessment does not include quantitative scaling in models.]

Science and Engineering Practices

Obtaining, Evaluating, and Communicating Information

- Obtain information using various texts, text features (e.g., headings, tables of contents, glossaries, electronic menus, icons), and other media that will be useful in answering a scientific question. (2-ESS2-3)

Asking Questions and Defining Problems

- Ask questions based on observations to find out more information about the designed world.

Disciplinary Core Ideas

ESS2.B: Plate Tectonics and Large-Scale System Interactions

- Maps show where things are located. One can map the shapes and kinds of land and water in any area. (2-ESS2-2)

Crosscutting Concepts

Patterns

- Patterns in the natural world can be observed. (2-ESS2-2), (2-ESS2-3)

Connections to Nature of Science

Science Addresses Questions About the Natural and Material World

- Scientists study the natural and material world. (2-ESS2-1)

ELA/Math/Social Studies Connections:

ELA: 2SL1a, b, c, 2SL4, 6

Math: MP 2

Social Studies: 2.5a, d

Vocabulary:

- **map** - a flat representation of a place (in this case, Earth)
- **observe** - to look at something closely to gain information
- **predict** - an informed guess about future events
- **United States** - a country

Lesson 1 Where in the World Should Tina Live? *cont.*

Procedure

🌿 Phenomena:

Mystery Objects

Excitedly, announce to students:

“My friend Tina has contacted me and needs our help with something very important. She sent us a map, a postcard, and a package let's open it!” (If students want to know who the real Tina is or want to see a picture of her, choose a picture yourself that might best represent a “Tina” for your classroom.)

Allow students to look in the box and wonder out loud, “What do you think these are for?”

Let students discuss the objects for 1-2 minutes. As students discuss the objects, listen for ideas about where they might be from, what you would do with them, any property words such as hard, smooth, shiny, or maybe a reason Tina may have sent them.

As students discuss more about the objects or if the opportunity arises, present the postcard, and indicate that maybe you should read it. It might help tell what the objects are about.

1. Read the postcard.

“Dear Students:

After years of traveling the globe it's time to settle down and build my dream home. I have a problem. Many family members want me to live near them, I don't know what to do! I've decided to travel around the United States visiting each of them. Maybe then I can figure out where I want to live. Here's how you can help. As I visit each place, I will send you information about where my family lives, including what the land and water looks like. Included in the box are some objects they sent me. This will help get you started. I need you to gather information and be able to recommend to me where I should live and why. I'll be in touch soon.” www.boces4science.org/map*

*The website is not a live link, see Step 2 below.

2. Show students the link on the postcard and indicate that you're going to open that site to see what Tina sent. Go to the BOCES 4 Science (B4S) website (see the informational sheet included in the science kit). Once there, go to Tina's U.S. Travel map. Display the travel map indicating to students that it is just a larger picture of the postcard.

Discussion Questions:

- What do you notice about the map? (There are many answers students may have. There are 6 dots or locations where Tina's family members live.)
- What do you think the dots mean? (Answers will vary. Allow any suggestions and as the lessons go on, students may make the connection to where Tina's family lives.)



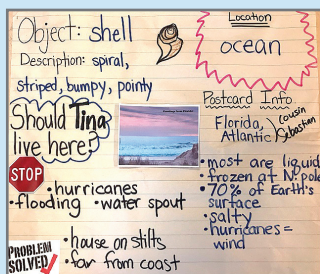
Lesson 1 Where in the World Should Tina Live? *cont.*

- c. What do you notice about where the dots are? (Answers will vary, again allow any suggestions but you could have students begin to notice land and water features. You could show students the inside of the box again to identify the 6 locations.)
- d. Do you think we can learn anything about the locations from the objects in the box? (The objects give hints as to whether they might be from land or water.)

3. Look at the objects again and exclaim;

"Oh no! The objects are all over in the box and got all jumbled up. Let's get them out and make some observations and see if we have any questions about them. Maybe we can put them back in the box in the right places." Bring students attention to the picture insert in the box (a larger poster is included in the kit). Indicate that maybe they can use the pictures and locations to help them figure out where Tina will be traveling.

4. Place the box, poster of insert, and objects in the center of the group. Allow students to observe the objects again. This is a good time to ask the students how they think they should keep track of the objects and information. You can allow students to come up with ideas for graphic organizers, anchor charts, or electronically. You can suggest they start a separate piece of chart paper or their own notebook for each object, writing down information discussed and also **questions or "I Wonder"** statements they make (see example). As more information comes from Tina throughout the lessons you should add it to each chart. It is suggested to leave space at the top of the chart to add the location once they figure it out. These charts will be used at the end of the unit as a summary of what students learned to write the letter to Tina.
5. Choosing one at a time, have students **observe** the objects. Allow them to **discuss** what they might be, **observe** any patterns (land vs. water), **answer the question** of where they might be from (land or water), and physical properties of them (hard, shiny, smooth, etc.). As students discuss the properties, write them on the designated anchor chart for each object. You may need to start with drawing a picture of each object. Ask students to think about one thing they notice and one thing they wonder about the object. These can be written on post-it notes or on chart paper as students share out.



SEP: Science and Engineering Practice(s):

Obtaining, Evaluating, and Communicating Information:

Obtain information using various texts, text features (e.g., headings, tables of contents, glossaries, electronic menus, icons), and other media that will be useful in answering a scientific question. (2-ESS2-3)



CCC: Crosscutting Concept(s):

Patterns:

Patterns in the natural world can be observed. (2-ESS2-2)

Discussion Questions for each item:

- a. What do you notice about this item?
- b. What properties can you name? (color, shape, size, texture, use or function)
- c. Are there any **patterns** or clues that help us know where they might have come from? (water, plant/animal from the water, smooth rocks or shells from the shore, rough rocks from the mountains)
- d. Can we make a prediction as to whether the object(s) came from land or water? (Document their predictions for later use.)
- e. What do we want to know about the objects?
- f. What do we want to know about the locations?

Lesson 1 Where in the World Should Tina Live? *cont.*

Closing the Lesson

Lessons 2, 3, and 5 deal with reading globes and maps. Your closing discussion should lead students towards learning more about what maps show and the similarities and differences of various types of maps.

Summarize the lesson with a discussion about the objects and postcard. Indicate to students that “Tina sent us this postcard with a link to a map, the objects, and the box that has pictures of land and water locations.” Ask students:

- What else could we use to help us learn about locations around the world? (globes, maps, books, internet)
- What might help us learn about where the objects came from?
- Do you think it might be a good idea to learn more about maps to help us learn about where Tina's family lives?

Optional: Where have the students traveled?

Ask students if any of them have traveled to different places in the United States. Invite students to put a sticker dot on Tina's U.S. Travel map where they have been. Start with the town or city where your school is, placing one dot to represent the class (the approximate location). Then add your own dot, saying the name of the place you have visited. Students may have visited a specific place but do not know the name of the city or state. Some guiding questions may be needed such as:

- Has anyone been to Disney? (Florida/California)
- Has anyone visited Cape Cod? (Massachusetts)
- Has anyone been to a beach at the Ocean? I've been to Virginia Beach, Virginia.

Help students place their dot on places they have visited. If a student does not have a specific place, ask them where they would like to visit and place a dot there. If they have been to Alaska or Hawaii you could display a different map showing them.

Discussion Questions:

- Are any of the places we have been near where Tina's family lives?
- If they are, can we describe what the places look like?
- Do you think we could find some objects similar to Tina's where we have traveled?
- Are there other types of maps that would help find where we have been?
- What do you think the maps would show us?



Lesson 1 Where in the World Should Tina Live? *cont.*

Assessment

Monitor student participation and contributions to the group work and group discussions. Student contributions to the discussion can formatively assess student knowledge and understanding of the concept of maps, properties, or patterns. This may help determine their level of comfort with looking at a map. Since the next lessons are on mapping skills this might be a good start to see their abilities and be able to work with students that might need a refresher on reading maps.

Connections

Differentiation: Buddy ELL students working in groups with classmates that speak the same language or are very verbal students when looking at the objects and answering the questions. This will allow ELL students to speak freely when describing the objects and where they might be from. This will also help them identify where they may have traveled to or from in their own lives.

Another option is to give each group of students one of the objects to observe. This may help focus student's attention on one object in a small group rather than all the objects in the large group. They can then take turns presenting their information to the class.

Cross-Discipline:

ELA/Art: Students can create a travel book or type of passport and draw the objects in the book. Then as they learn more information they can add it to their books. They can write a short paragraph or create a graphic organizer in the books about the different objects.

Social Studies: Look at maps of the United States to get a better picture of where Tina's family lives based on the dots. Use Google maps for more detail.

Earth Science: If students know what some of the items are, they can look up physical features about the locations the items came from. If students recognize mountains, lakes or other features on the map, they could research other examples of those features in NYS, the U.S. or the world.

Next Lesson Preparation

- You will need to blow up the 6 globes in the kit. This will take some time, so having them done ahead of time will be valuable.
- Optional: Prior to the next lesson, write the anchor questions (see Lesson 2) on a piece of chart paper or electronic means, leaving space to record student responses. To keep this lesson more inquiry based, you do not need to show the students the questions unless guidance is needed. Keep this information as reference for the final lesson when students write their letter to Tina.