

# Port of Seattle



## Teacher Resources

### Seaport Elementary 1-6



# NOTES TO TEACHERS

The most successful visits to the Port of Seattle are those in which the teachers and chaperones have prepared their students for the visit by giving them a beginning vocabulary and an introduction to port functions and trade. Students profit the most when teachers and chaperones clearly outline expectations and assign specific tasks to help the students key into the things they will hear and see.

This resource guide is divided into pre-visit, during and post-visit lessons and activities. The materials will help prepare your students, check for understanding and make their visit more meaningful.

We are looking forward to your visit to the Port of Seattle and we hope these lessons and suggestions will make your visit educational and fun.

*Port of Seattle  
Sea-Air School Staff*

# CHOOSING LESSONS FOR YOUR SEAPORT VISIT

## **-ELEMENTARY-**

Certain lessons in this booklet should be done by all students, however, depending on the tour you choose some are more appropriate as pre-visit or follow-up activities .

### **Getting to Know Your Seaport**

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# PRE-VISIT MATERIALS

Before your field trip to the Port of Seattle, help your students gain an understanding of what a port does and the vocabulary that will be used. Choose a few of the lessons in this resource guide and incorporate them into your classroom activities.

Also, prior to your visit, duplicate and discuss the Expectations sheet on page 23 with your students. It will be helpful if your chaperones are also familiar with the Expectations. Our goal is for everyone to have an educational and fun field trip experience.

The lessons included in this unit are:

## **Orientation to the Port and Port Vocabulary**

This lesson provides general background information.

## **Pre-visit Brainstorming of Knowledge**

This lesson helps you assess prior knowledge.

## **Import Detective**

This lesson gathers the information about products from foreign countries used in your students' daily lives.

# ORIENTATION TO THE SEAPORT

Grades: 1-3

EALR's: Communication: 1.1, 1.2, 1.3

Reading: 1.1, 1.2

SS-History: 1.1

SS-Geography: 2.3, 3.3

SS-Economic: 1.5

## WHAT'S THIS LESSON ABOUT?

This lesson presents some of the basic concepts and vocabulary which will be used by the speakers and guides on your field trip. If students are familiar with the terms, they can understand more of their experience. This is perfect for grades 1-3, and useful for older students.

## MATERIALS

- Enough copies for your class of Orientation to the Port, including Port Words.
- Pictures of a port would help as you describe a port. A map of the Seattle area would be helpful if you have one available.

## HOW ARE WE GOING TO DO IT?

1. Ask your students to think about the kinds of ports they are familiar with as you distribute the sheets.
2. Collect the ideas they already have about ports. Try to key their comments to the two types of ports—airport and sea (river) port.
3. Go over the materials with the students. Remind them that we will see only the seaport on our tour. Remember, Seattle-Tacoma International Airport (Sea-Tac) is a part of the Port of Seattle.
4. With a map or pictures, you can add depth of understanding to the idea that ships bring cargo into Seattle and they load products from this area to take elsewhere.
5. If you have pictures of containers, cranes and terminals, they will help the students understand and gain a working vocabulary.
6. Pass out the Port Words worksheet. Ask your students to make a prediction of what they think each of the objects listed looks like. Collect the drawings when they are done. Remind the students that they will see and hear these words many times on their tour. When you return from the trip, pass their papers back and let them decide which ones were closest to their predictions.

# PORT WORDS

## Student Worksheet

NAME \_\_\_\_\_

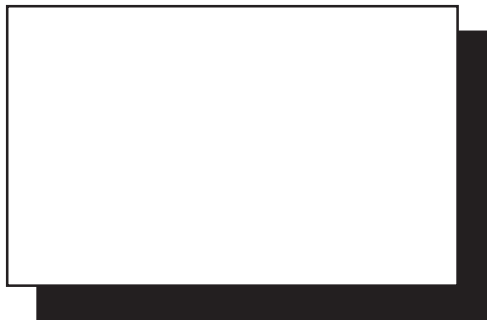
Draw what you think each of these looks like. When you come back from your trip, put a star on the ones that are like the ones you saw.



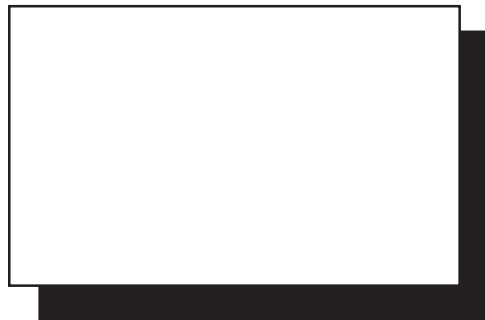
container



cargo ship



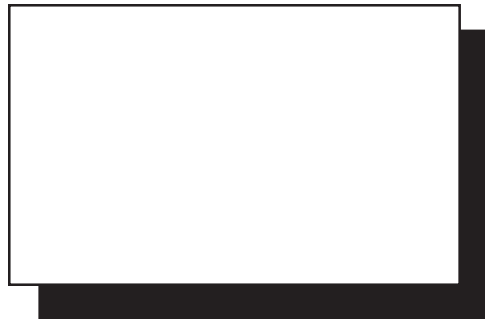
crane



warehouse



grain silos



container terminal



cargo



anything not mentioned you think you'll see

# ORIENTATION TO THE PORT

Grades: 1-3

EALR's: Communication: 1.1, 1.2, 1.3

Reading: 1.1, 1.2

SS-Economic: 1.1, 1.5

## Student Worksheet

Name \_\_\_\_\_

A port can be:            A. an airport            B. a seaport.

The Port of Seattle is both.

We will find out more about the seaport, because that is where we will visit.

A seaport is a place where ships bring cargo (products) to unload and then pick up or load cargo to take someplace else.

MATCH the cargo coming to Seattle with the right picture.

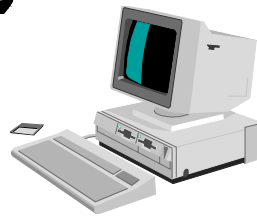
cars

televisions

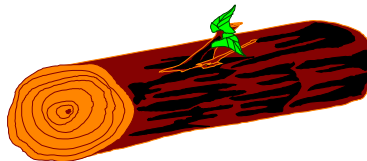
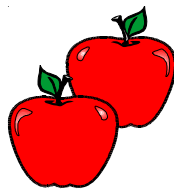
computers

VCR's

clothing



MATCH USA cargo going abroad (overseas) from Seattle with the right word.



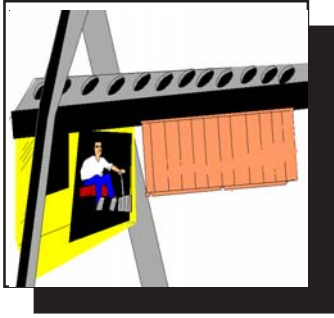
apples

wheat

log

cherries

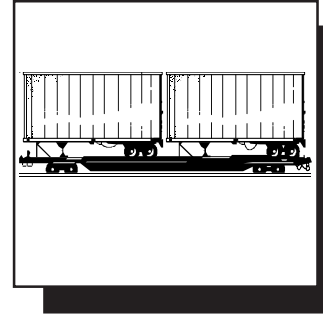
Ports have docks to put cargo on. There are also warehouses to store cargo.



Most cargo is shipped in containers. These are large metal boxes typically 20 or 40 feet long.



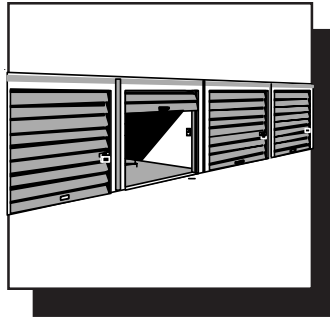
They are lifted onto and off ships by cranes. They are sealed so rain and waves are no problem.



Some containers are loaded directly onto railroad cars and go across the country.



Others are put on truck beds and are carried to their destination.



Some containers are stored in warehouses until their contents are ready for use, then they are emptied and used again.



Some containers are unpacked and their cargo is put on airplanes headed for Europe.

#### WHAT CAN FIT IN A CONTAINER?

1. How many VCRs?
2. Average number of VCRs carried on a container ship?
3. How many Nike athletic shoes fit?
4. How many baseball caps?
5. How much does a container cost?
6. How much does a refrigerated container cost?
7. A container ship, if stood on its end, would be as tall as what well known building in Seattle?
8. How long does it take to load an average container ship?
9. How many apples fit into a refrigerated container?

ANSWERS 1. (4,403), 2. (4,030,000), 3. (10,171 pairs), 4. (50,688), 5. (\$6,000), 6. (\$40,000), 7. (the Columbia Seafirst Center), 8. (1 day), 9. (67,200)

# BRAINSTORMING KNOWLEDGE ABOUT THE PORT

Grades: 4-6

EALR's: Communication: 1.1, 1.2, 1.3, 3.2

Reading: 3.1

Writing: 1.1, 1.2, 1.3, 2.2

SS-Economic: 1.1, 1.2

NAME \_\_\_\_\_

Draw what you think each of these looks like. When you come back from your trip, put a star on the ones most appropriate with students who have already studied ports and their operations. It is very well suited to students in grades 4-6.

## MATERIALS

- Copies for each student of Brainstorming Knowledge About the Port.
- Record the students ideas you collect from the two different brainstorming activities. This would help demonstrate gains in knowledge for the class as a whole.

## HOW ARE WE GOING TO DO IT?

1. Ask your students to think about things they already know about ports.
2. Distribute copies of the sheet, Brainstorming Knowledge About the Port.
3. Have each student write down three ideas/bits of knowledge about ports. Tell them there is no penalty if they cannot come up with three items.
4. Have students review their lists in pairs. They should then come to consensus on the one thing (from the possible six) that they think is the most important piece of knowledge they already have.
5. Share and record the item each pair chose as most important. Comment and reinforce as appropriate.
6. Collect the sheets or have students put them away so they can use them after the field trip.
7. Tell students they will go on a field trip to the Port of Seattle to learn more about ports. Ask them to think about what are the most important new experiences from the trip.
8. When you return, repeat the process on the bottom section after you return the sheets or after students take them out of their notebooks.
9. Compare their list of new experiences with their list of pre-field trip knowledge.

# BRAINSTORMING KNOWLEDGE ABOUT THE SEAPORT

## Student Worksheet

This becomes a document of how much students have learned.

Name \_\_\_\_\_

What things do you know about ports, especially the Port of Seattle, before we visit?  
List at least three things you know.

1. \_\_\_\_\_ -

\_\_\_\_\_ -

2. \_\_\_\_\_ -

\_\_\_\_\_ -

3. \_\_\_\_\_ -

\_\_\_\_\_ -

We will save this sheet until we come back from the Port of Seattle.

What are three new things you learned about the Port of Seattle?

1. \_\_\_\_\_ -

\_\_\_\_\_ -

2. \_\_\_\_\_ -

\_\_\_\_\_ -

3. \_\_\_\_\_ -

\_\_\_\_\_ -

# WHAT WEST COAST CITY'S AIRPORT AND SEAPORT IS CLOSEST TO ASIA?

All countries participate in international trade, both exporting to (selling) and importing (buying) goods from other countries. Trade is very important to the United States, to the state of Washington and to Seattle.

Seattle is an important center for world trade since our airport and seaport are located closer to Asia than any other United States port. A ship sailing from Asia reaches Seattle about one day sooner than Los Angeles. By air, Seattle is closer too. Asia is an important trading partner, because Asian countries produce the kind of goods we use every day, such as cars, stereos and clothing. Since Seattle is closer to Asia than any other United States port, companies sending goods to the United States save time and money when they use Seattle as the gateway to the Midwest and East Coast of the United States.

Washington State is more dependent on international trade than any other state. In Washington, we export everything from apples to airplanes, and we import everything from kiwi fruit to toys. One out of every four jobs here is related to international trade. Airline workers, farmers and restaurant workers are just a few of those whose jobs are connected to international trade. What job would you like to have someday? Will international trade influence your work?

# WHAT IS A CONTAINER? WHERE WOULD YOU SEE CONTAINERS AND WHAT MIGHT YOU FIND INSIDE?

Next time you visit Seattle's waterfront, watch for the giant orange structures in the harbor. They're container cranes—huge machines used to load and unload containers on and off ships. The crane operator sits in a large box suspended from the middle of the crane and operates computerized controls that lift containers onto and off ships.

A container is simply a large metal box, 20 or 40 feet long and 8 feet high, which hold goods as they are transported from place to place. Containers can hold anything from Frisbees to VCRs. Before containers, cargo was loaded onto ships item by item. Imagine how much time it would take to fill a 600-foot ship with toy trucks, working only with cardboard boxes and a net sling. Today, most of the cargo that passes through the Port comes in containers. A ship can carry more than 6,600 containers at a time.

Container terminals are where ships dock to load and unload goods. The Port's 23 container cranes move over one million containers each year, making Seattle one of the busiest container ports in the world.

Some goods (such as corn and soybeans) will always be shipped without containers, in bulk fashion. The Port has special facilities to handle these goods. The Port's grain terminal loads grain through chutes directly into ships. A single grain ship could hold enough grain to make a pizza the size of New York City!

# WHAT HAPPENS TO CONTAINERS AFTER THEY LEAVE THE PORT OF SEATTLE?

Much of the cargo coming to the Port of Seattle is transported by railroad and truck to cities in the Midwest and East Coast of the United States. Can you name a Midwest City? Can you name an East Coast city? Whichever cities you name, you can be sure the Port ships cargo to them, as the Port sends goods to more than 60,000 cities across the United States.

At the dock, when containers are taken off the ship by the container crane, they are loaded onto trucks for transport to warehouses, a rail yard or a truck dispatch center.

Some containers are loaded onto trucks where they speed off to their final destinations. The Port of Seattle is well known for the speed and efficiency with which it can ship goods.

Other containers are lifted onto rail cars for their journey. Containers are sometimes double-stacked on rail cars, as shown in the picture, which allows each train to carry twice as much cargo.

Burlington Northern Santa Fe and Union Pacific are the two railroad lines serving the Port of Seattle. Both rail yards are located within two miles of most of the Port's container terminals, which helps speed the movement of cargo. The Port also has on-dock rail yards, where railcars roll almost right up to the ship. On-dock rail allows railcars to be loaded at the container terminal, so that they can travel directly from the terminal to their final destinations.

# **WHERE DID YOUR CLOTHES, TOYS, AND YOUR FAMILY'S FURNITURE, CAR AND TV COME FROM?**

Some of the world's largest manufacturers of toys, office equipment and electronic goods ship their products from factories in Asia through the Port of Seattle.

In addition, many clothes made in Asia come through the Port of Seattle. Look at the manufacturer's tag at the back of your clothes. It may say "Made in Taiwan," or "Hong Kong," or "Singapore." These are countries in Asia, where clothes are manufactured then shipped in containers to Seattle. Over 90 percent of the Port's trade is with Asian countries. What other things can you think of that comes from Asia?

The Port's top Asian trading partner is Japan. We send Japan lumber, paper, vegetables, fish and beef, and the Japanese send us cars, computers, TVs, calculators and other electronic equipment.

In addition to Japan, the Port of Seattle trades with over 150 countries ranging from Israel to Italy, from Saudi Arabia to Sweden. What foreign countries can you name? The Port of Seattle probably exports goods to them, as well as imports goods from them. The Port of Seattle exports a lot of animal hides, paper, frozen fish and apples. Potatoes from Eastern Washington are processed and frozen, then packed into containers and sent to Tokyo, Japan, and other cities in Asia.

# WHY ARE THERE SO MANY DIFFERENT KINDS OF BOATS AT FISHERMEN'S TERMINAL? WHAT KIND OF FISH DO THEY CATCH?

More than 700 commercial fishing boats of many kinds have a home at the Port of Seattle's Fishermen's Terminal.

As you take a look at the different types of boats moored at the Terminal, notice that each boat is designed to catch a specific type of fish with a special type of gear. Fishermen use several methods to catch fish including seining, long-lining, and trolling.

Commercial fishing is one of Washington's oldest and most important industries. Today, the use of modern technology such as fish finding sonar and navigational computer systems helps fishermen return to the exact spot where they left their nets.

You might guess that the vessels at Fishermen's Terminal catch salmon, crab and tuna, but did you know they also catch anchovy, octopus and squid? How many of these fish have you tasted? What other seafood can you name?

Commercial fishing is not easy. Fishermen have to deal with rough seas, weather, darkness, and machinery problems. When they return to port, they cannot rest. They must unload their catch and secure their boats. Fishermen's Terminal is truly a home for them at these times, as they can eat at several of the restaurants located at the terminal, wash their clothes, take a shower and restock their supplies from the marine supply stores.

# WHAT KIND OF BOATS WOULD YOU SEE AT SHILSHOLE BAY MARINA?

Shilshole Bay Marina is situated in Ballard overlooking Puget Sound and the Olympic Mountains. You will see a forest of masts from more than 1,500 sailboats. There are many different types of sailboats. A sloop has one mast. A schooner has two masts, with the mast in front shorter than the one in back. A catamaran has two hulls (the hull is the main body of the ship). Can you identify some of these sailboats in this picture?

We live surrounded by lakes and the waters of Puget Sound, so many people in Seattle and King County own boats. They find that Shilshole Bay Marina is conveniently close to Seattle, and it offers all of the services boaters need. Modern equipment and work areas are available for boat maintenance and minor repair jobs, and a central pier holds a marine fueling station and a small store for picnic foods.

If you visit Shilshole Bay Marina, you might want to have lunch in one of the restaurants or browse in the gift shop while you explore the sights and sounds of the Marina. Be sure to listen for Shilshole's most common sounds, such as the wind playing tunes on the ships' rigging, a foghorn if it's foggy out, or the sound of sea gulls. One of the ways to enjoy Shilshole Bay Marina is to notice the names people give their boats. Many of the names are a play on words, such as "Vitamin Sea" or "Sunny Daze." If you had a boat, what would you name it? One sight you won't want to miss is the statue of Leif Erikson, an early Scandinavian explorer, which guards the Marina and the Sound beyond.

# WHO OWNS THE PORT OF SEATTLE?

You and all the people living in King County own the Port of Seattle. The Port was established by voters in 1911 and is governed by five commissioners who are elected by the voters of King County.

The main purpose of the Port is to manage and promote the flow of cargo and passengers for the economic benefit of King County residents. In fact, more than 200,000 indirect and indirect jobs are the result of activities in the harbor and at the airport. Did you know that Seattle-Tacoma International Airport is part of the Port of Seattle. Think about the jobs your mom and dad have—do they have something to do with international trade?

The Port of Seattle incorporates public access and shoreline parks into expansion project areas for public enjoyment. Some of these include Terminal 5 public access park and city viewing platform just south of Salty's off Harbor Avenue, the Bell Street Pier 66 public plaza and roof deck, Elliott Bay Park and the public fishing pier near Pier 86, and others. Have you been to any of these places?

Visit our web site at <http://www.portseattle.org/portandyou/community/02access.htm> for a complete list of parks, directions and amenities.

# IMPORT DETECTIVE

Grades: 1-6

EALR's: Communication: 3.1, 3.2, 3.3

Math: 1.1, 2.1, 3.1, 3.3, 4.2, 4.3, 5.3

SS-Economic: 1.1, 1.5

## WHAT'S THIS LESSON ABOUT?

Students can be introduced to products we import through the Port of Seattle by this exercise. They can also focus their attention on the reason why we trade and the reasons why our ports are so important. This activity can be used with grades 1-6. As a follow-up, students can graph the information they discover.

## MATERIALS

You will need to make sufficient copies of Import Detective. Copies of Graphing Your Evidence are optional, but the sheet does provide a good integration with math skills. One copy per group of four of Product Tally is needed as well as copies of Graphing Your Evidence.

## HOW ARE WE GOING TO DO IT?

1. Have students think about where the clothes they are wearing were made. Have them look at labels, discreetly, to find out where.
2. List the products and places of origin. Label these as imports since they are products that were made elsewhere and have been brought to the United States for our use.
3. Have students "inspect" their desks to see if they can "uncover" other imports which they use in their daily lives.
4. Distribute copies of Independent Import Detective. Ask students to follow along as you explain the directions.
5. Have students take the sheets home and become detectives with the help of their parents. Assign a due date.
6. When students bring back their sheets, have them divide into groups of four, approximately. Give each group a Tally Sheet. Explain that they should share their detective work in the group first.
7. Identify a "Tally Taker" in each group. Have each group tally the number of items they found by country. For example, if someone has something from Japan, the Tally Taker asks, "how many products came from Japan?" and write the name of the country and the total products on the tally sheet. They should do this for any country that has more than two items. If they have a country with only one or two items, they should not record it.
8. Share group results. You will need to write the country and then keep a running tally as each group adds their data.
9. After you finish, there should be a total for each country. Distribute copies of Graphing Your Evidence. Have students use the total on your tally as the data to enter.
10. Discuss the graph in terms of our major trading partners. You might also want to share the idea that number of products is not the only idea to consider in determining trade activity. We could also look at the cost of the items.

# INDEPENDENT IMPORT DETECTIVE

## Student Worksheet

Name \_\_\_\_\_

In Washington State, we use many foreign products that come to us through the Port of Seattle.

If you have a TV and DVD/VCR, they probably came from Japan, Korea or another Asian country. Many people have clothes from Korea, Thailand, India or Malaysia. See if you can find these places on a world map or a globe.

When you go home tonight, ask someone to help find eight objects in your home that come from foreign countries. These objects could be food, clothes, electrical appliances, toys or anything.

Write the name of the object, the country it came from and then do a small sketch of the object.


OBJECT

COUNTRY

SKETCH

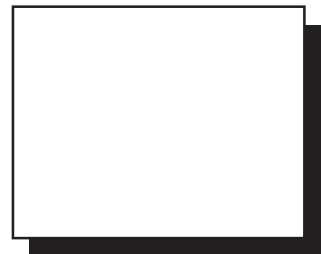
\_\_\_\_\_

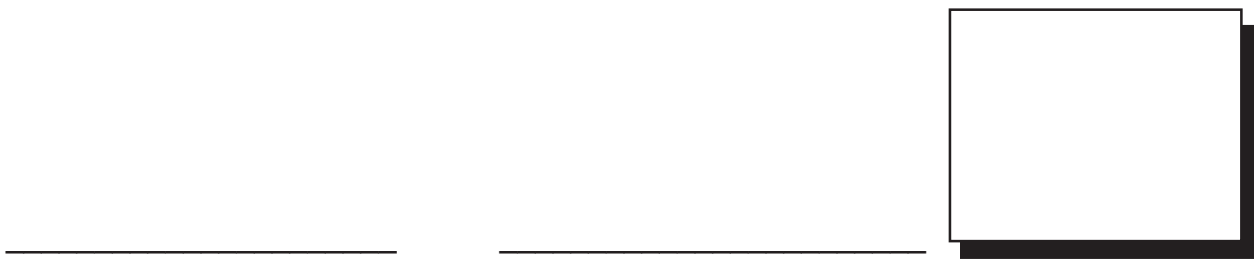
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\_\_\_\_\_





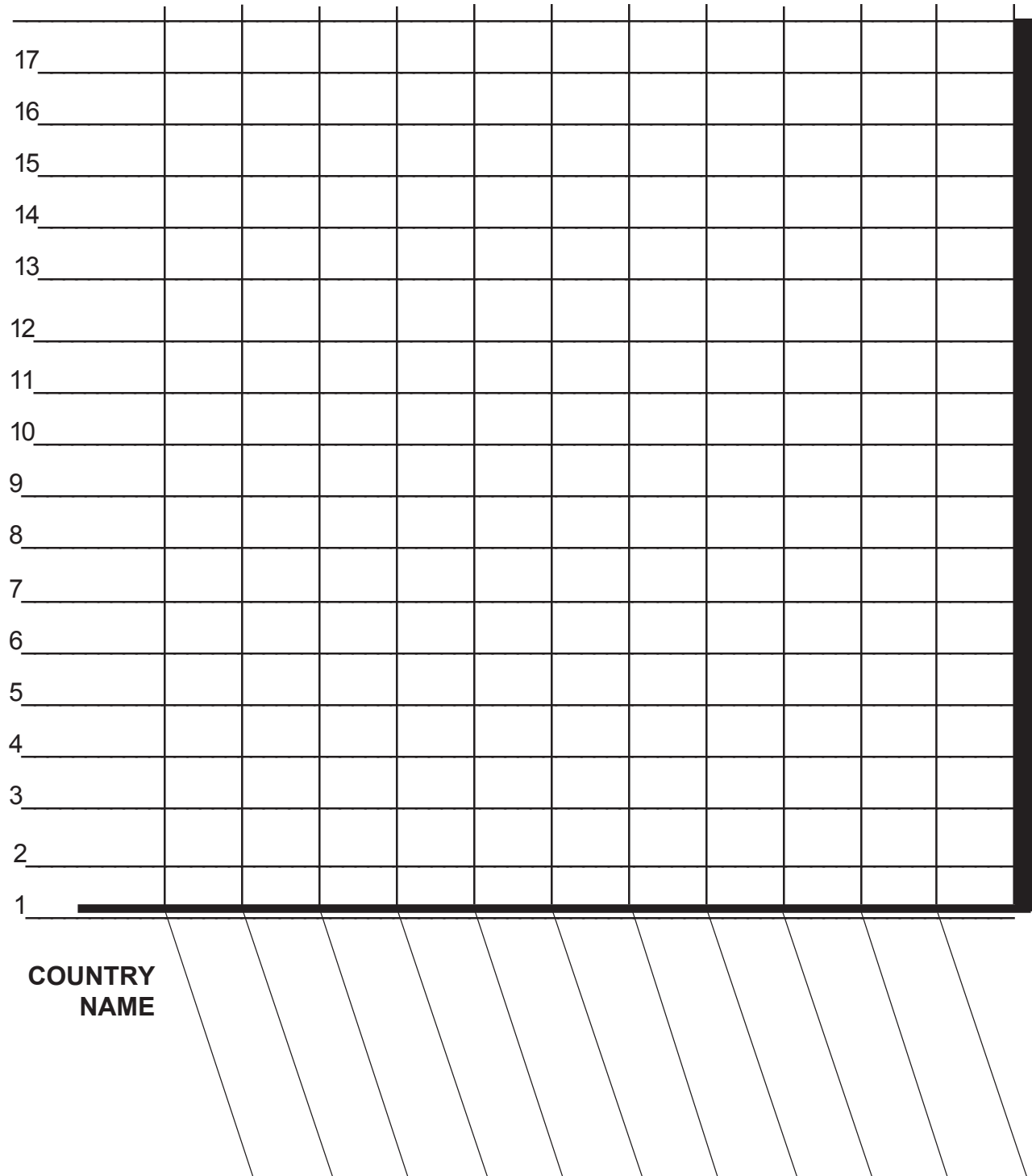


# GRAPHING YOUR EVIDENCE

## Student Worksheet

Name \_\_\_\_\_

Please graph our class evidence by recording the number of pieces of identified. If we have more than 17 pieces, please stop at that number.



# STUDENT EXPECTATIONS FOR A FIELD TRIP TO THE PORT OF SEATTLE'S SEAPORT

The Port services are unique because of the combination of businesses involved in the shipping industry: steamship lines, rail and truck carriers, freight forwarders, customhouse brokers and stevedores.

## Students will learn about:

- the facilities of the Port of Seattle's Seaport
- the functions of the Port of Seattle
- the history of the Port of Seattle and changes that have taken place
- the careers of people who work on the Seaport side of the Port of Seattle

## We expect students to:

1. Wait quietly before instructions are given.
2. Obey any requests made by the speakers and guides.
3. Listen attentively and politely to all speakers and guides.
4. Raise a hand if they wish to ask a question.
5. Remain seated during the classroom section of the boat trip.
6. Take notes which will be shared with the rest of the class.
7. Stay together as a group while moving around the boat.
8. Walk at all times—no running.
9. Hold on to the handrails when going up and down the stairs. The boat can rock from waves at anytime.
10. No eating or drinking during the boat trip.
11. Leave music devices, cell phones, beepers or other distractions off.

The Port of Seattle is happy to welcome you. We have made arrangements that will makethisaneducational and fun experience, so please follow the Expectations listed above.

# DURING YOUR VISIT MATERIALS

The following lessons are designed to help students focus on the sites and activities at the Port of Seattle's Seaport. In order to make your visit pleasant and educational, we ask the following of you:

- A. Please review the Expectations from the Pre-Visit materials.
- B. Plan at least one activity for use on board the bus/boat.
- C. Have adequate copies of the activity sheets for all students. Distribute them at designated times.
- D. Have pencils/pens/crayons ready. We will provide lap boards for use during the trip.

The lessons prepared for your choice include:

PORT BINGO	This is for all ages and helps students pay attention as they listen and learn.
PORT POEMS	These poems are simple enough for really young students, but they work equally well with middle level and high school.
PASS-THE PORT	These "little" books are great for taking notes or making sketches. The novelty of the book design helps build the interest.
PORTHOLES	This activity is a perfect way to help students remember their visual impressions. This could be effective with any age, but it is great for students who might have trouble taking notes.

# SEAPORT BINGO

Grades: 1-6

EALR's: Communication: 1.1, 1.2

SS-Economic: 1.2, 1.5

## WHAT'S THIS LESSON ABOUT?

Port Bingo is designed to help your students focus on places and objects important to the Port of Seattle. Like traditional Bingo, the student is expected to match words with what they see and hear. The difference is they may only hear a few of the words, so listening will be very critical. The exercise is planned so all children get a BLACKOUT, an X in every box, by the end of the tour.

## MATERIALS

Students will need a copy of the Port Bingo. **Please make copies for your students and bring them with you on the tour.** Your students will also need a pencil, pen, color crayon, or marker. The Port will provide lap boards for your students to write on.

## HOW ARE WE GOING TO DO IT?

1. Be sure your students have been introduced to the vocabulary suggested in the pre-visit materials.
2. Bring enough copies of Port Bingo for your class. You might also want to include copies for the chaperones as well.
3. Hold the copies until the speaker asks you to distribute them.
4. After passing out the copies, quickly go through the vocabulary on the page with your students, if you think that would make this activity more successful for your class.
5. Explain to the class how to play, marking an X through each box when they see something or hear a word. The goal is to mark an X in every box, careful listeners and observers may get a BLACKOUT!
6. When you return to the class room, you may want to graph how many words your students got one, two, several BINGOS or a BLACKOUT.

# SEAPORT BINGO

## Student Worksheet

Name \_\_\_\_\_

Use this Port Bingo card on your trip. When you hear the tour guide say a word, mark it off with an X through it. This is BLACKOUT Bingo, so try to mark an X in every box

<b>CRANE</b>	<b>DUWAMISH RIVER</b>	<b>SEATTLE SHORTCUT</b>	<b>KOREA</b>	<b>TRADING PARTNERS</b>
<b>HARBOR ISLAND</b>	<b>CONTAINER</b>	<b>ON-DOCK-RAIL</b>	<b>WAREHOUSE</b>	<b>TUG BOAT</b>
<b>CHINA</b>	<b>ICE BREAKER</b>	<b>PORT COMMISSIONER</b>	<b>SHIP</b>	<b>INTERMODAL</b>
<b>CONTAINER TERMINAL</b>	<b>RAIL ROAD</b>	<b>ALASKA</b>	<b>JAPAN</b>	<b>TRUCKS</b>
<b>LONGSHORE WORKER</b>	<b>CUSTOMS OFFICIAL</b>	<b>CRUISE SHIP</b>	<b>BUNKER BARGE</b>	<b>OIL CONTAINMENT BOOM</b>

# PORT POEMS and IMPORTED POETRY from JAPAN

Grades: 3-6

EALR's: Art: 1.1, 4.1, 4.5

Communication: 1.1, 1.2, 2.2, 2.4

SS-Economic: 1.1, 1.2, 1.5

## WHAT'S THIS LESSON ABOUT?

The two poetry lessons are designed to focus student attention on the activity of the Port of Seattle, helping students identify the equipment used, recognize the interdependence of Washington State with other countries, or describe the products moved through the Port. Poetry provides a unique way for students to reflect and demonstrate their knowledge. Writing poetry integrates the Port of Seattle tour with most language arts curricula.

## MATERIALS

If you choose to do either lesson on the tour, please make copies of the worksheet for your class. The Port will provide lap boards for your students to write on.

## HOW ARE WE GOING TO DO IT?

1. While still in your classroom, introduce your students to the form of poetry you chose.
2. Practice with familiar equipment in your room to make your students comfortable with the form, for example:

Chalkboard Eraser,  
black, soft,  
rubbing, wiping, sliding,  
erases words and numbers  
Chalkboard Eraser.

or

Chalkboard eraser,  
Sliding soft across the board,  
Wiping out my words.

3. Tell the students they will have an opportunity to write poetry while they are on the tour. Ask them to choose vivid images, impressive things or ideas, objects that they want to remember.
4. After passing out the copies, quickly review the activity with your students.
5. Tell your students they will have an opportunity to share their poems when you get back to your classrooms. You may want to require at least one poem from each student.

# PORT POEMS

## Student Worksheet

Name \_\_\_\_\_

Look around you while we are on tour.

Look for subjects to write into poems.

For example:

<b>Subject:</b>	CONTAINER CRANES,
<b>Two Describers:</b>	HUGE, ORANGE,
<b>Three "ing" words:</b>	MOVING, LIFTING, SWINGING,
<b>A Thought:</b>	STAND TALL AND PROUD,
<b>Repeat Subject:</b>	CONTAINER CRANES.

Try your hand at two. Look at the words that should go on each line.

\_\_\_\_\_ ,

\_\_\_\_\_ , \_\_\_\_\_ ,

\_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ ,

\_\_\_\_\_ ,

\_\_\_\_\_ .

\_\_\_\_\_ ,

\_\_\_\_\_ , \_\_\_\_\_ ,

\_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ ,

\_\_\_\_\_ ,

\_\_\_\_\_ .

# IMPORTED POETRY

## from JAPAN

### Student Worksheet

Name \_\_\_\_\_

A haiku is a Japanese lyric poem. It is short, but it can paint a beautiful picture or tell a meaningful thought.

There are three lines:

**The first has five syllables,  
The second, seven syllables, and  
The third has five syllables.**

This means there are only a few words.

**Five Syllables:** JAPAN IS SO FAR,

**Seven Syllables:** WE GET CARS AND COMPUTERS,

**Five Syllables:** WE SEND WOOD AND LOGS.

Try writing two of your own haiku. Count your syllables by clapping, if necessary.

\_\_\_\_\_ ,  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ ,  
\_\_\_\_\_  
\_\_\_\_\_ .

# PASS-THE-PORT SKETCH BOOK & NOTES ON THE PORT BOOK

Grades: 1-4 (Sketching)

5-6 (Notes)

EALR's: (Sketching)

Art: 1.2, 2.1, 4.1

SS-Economic: 1.2  
(Notes)

Writing: 2.4

SS-Economic: 1.1, 1.2, 1.5

SS-History: 2.1

## WHAT'S THIS LESSON ABOUT?

The purpose of these two lessons is to provide a focus and a record of the Port tour for your students. The focus directs your students' attention to the important aspects of the Port while on tour. The record provides a way for your students to share this experience with their families. You can choose the lesson that emphasizes either right brain (note taking) or left brain (sketching) activity. Some teachers may let students choose which they'd prefer, although the sketch book is geared more to primary students while the notes are more appropriate for intermediate students.

## MATERIALS

Each student will need a copy of the book you have chosen. It is your responsibility to make these copies and assemble the books while still in your classroom. If you can't make copies, the books can be folded and pages labeled by the students using standard 12" x 18" white construction paper.

## HOW ARE WE GOING TO DO IT?

1. Pass out a copy book or construction paper to each student.
2. Tell students to first, fold paper in half lengthwise.
3. Second, open paper up and fold in half across the width.
4. Third, fold again across the width, into fourths.
5. Now, open the paper so it is just folded in half, as in #3.
6. From the folded side, cut across the center fold toward the edge of the paper, stopping at the quarter fold mark. You should have a cut in the center of the paper now.
7. Open the paper up, and refold lengthwise.
8. Hold the outside edges and push toward the middle. The cut will open up and lap over forming the pages of a book. Refold the final flap so you have a cover. Your book should be complete.
9. If you have made yours "from scratch," label each page.
10. Be sure that each student takes his/her book on the tour. Set your standards prior to leaving . i.e., how much is expected, level of quality, amount of detail, and how you will evaluate.

# PASS PORT SKETCH BOOK

## Student Worksheet

Name \_\_\_\_\_

As we tour the Port, make sketches for each of these pages. When we get back, you can make a book to share with your family.

**Cover:** MY TRIP TO THE PORT OF SEATTLE

**p. 1:** THE HARBOR

**p. 2:** A CRANE TO PICK UP CONTAINERS

**p. 3:** A CONTAINER FOR CARGO

**p. 4:** A SHIP FOR CONTAINERS

**p. 5:** A TUG TO MOVE SHIPS

**p. 6:** A TRUCK TO DELIVER CONTAINERS

**p. 7:** A TRAIN TO DELIVER CONTAINERS

# NOTES ON THE PORT

## Student Worksheet

Name \_\_\_\_\_

As we listen to our speaker, write notes in the correct category. We will make a book that you can share.

**Cover:** MY NOTES ON THE PORT

**p. 1:** NOTES ON TYPES OF CARGO

**p. 2:** COUNTRIES WE TRADE WITH

**p. 3:** HOW A CARGO CONTAINER IS MOVED

**p. 4:** WHY IS IT IMPORTANT TO MOVE CARGO RAPIDLY?  
WHY IS SEATTLE SUCH A BUSY PORT?

**p. 5:** WHO OWNS THE PORT OF SEATTLE?  
WHO RUNS THE PORT OF SEATTLE?

**p. 6:** NUMBERS I HEARD:

**p. 7:** WHAT WAS THE MOST IMPRESSIVE THING I LEARNED?

# PORTHOLES, A visual memory

Grades: 1-3

EALR's: Art: 1.2, 1.3, 2.1

SS-Geography: 2.1, 2.2, 2.3

## WHAT'S THIS LESSON ABOUT?

This lesson is designed to focus the students' attention while on the tour and to record what they observe. Using the round shape of a ship's porthole, the student will record what they see on the tour. While some children may create one single picture, others may want to divide the circle into segments, depicting a different scene in each segment. You might consider hanging all the pictures on a bulletin board for display upon your return to school.

## MATERIALS

Round piece of cardboard like the type used to support pizza or cakes, or use copies of Portholes form. Children must have a pencil or pen.

## HOW ARE WE GOING TO DO IT?

1. Pass out the supplies.
2. Ask them how a round shape and the Port might be related. If no one says "porthole," prompt by asking what is round on a ship. Give the answer if no one responds.
3. Ask the students to think, as they go on the tour, what they might see at the Port of Seattle if they looked out of the porthole of a ship docked at the pier.

Tell them to draw those scenes, just as if they were looking out a porthole. Tell them they will have a chance to complete any unfinished drawings and to color their pictures when they get back to the classroom.

Encourage students to "slice" the porthole, making several scenes of what they see, as if they were looking to the left, the right, up and down.

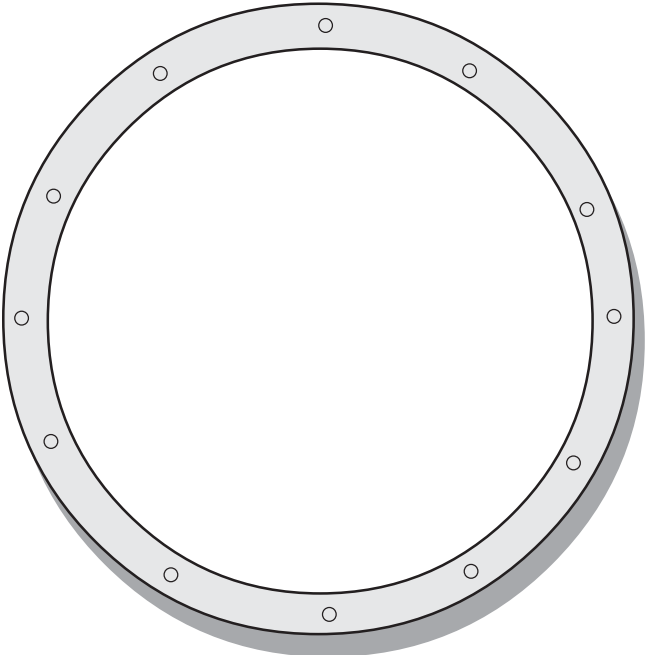
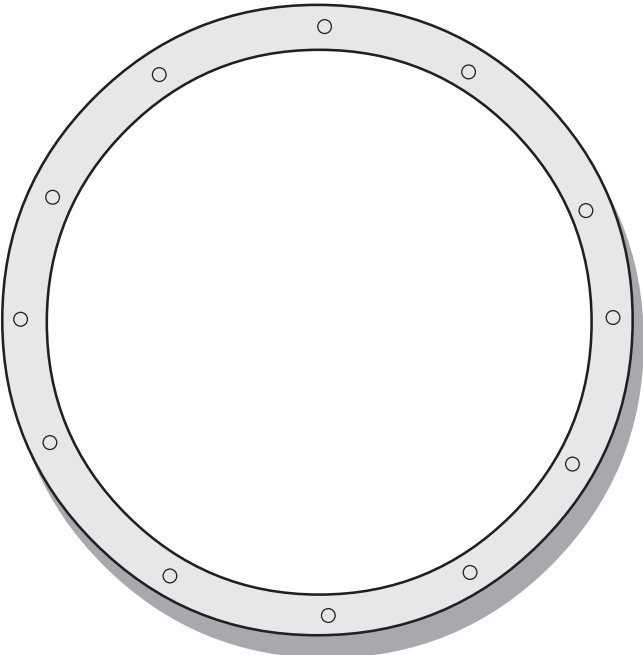
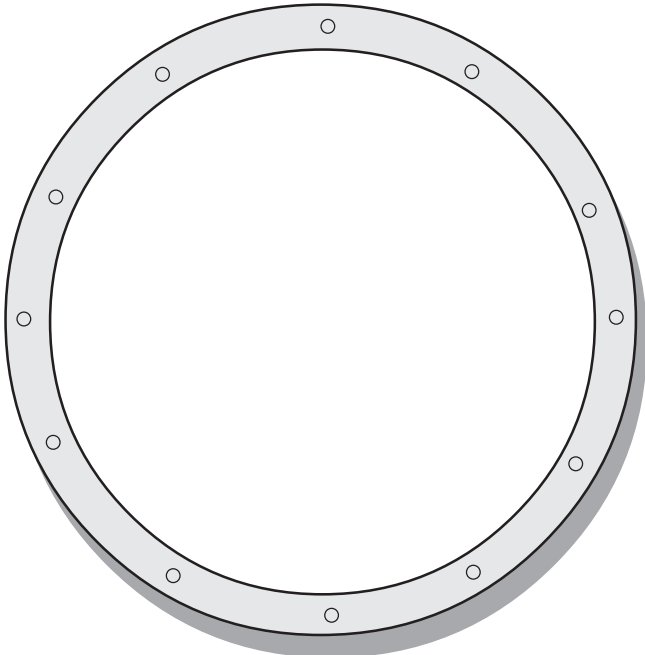
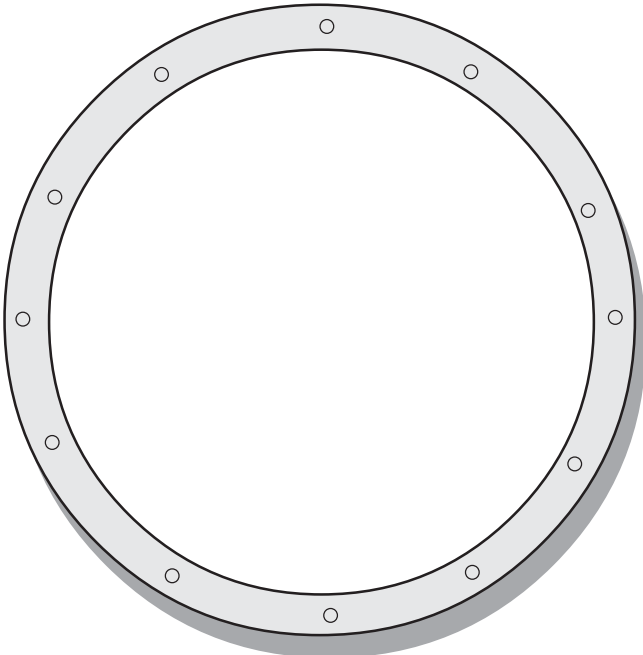
4. You may want to require that the students have to sketch in the whole porthole while on tour. You may want to structure the drawing even more: i.e., one crane, one container, one warehouse and one form of transportation.

NOTE: This activity could be done on your return to the classroom, if you wish.

# PORTHOLES FORM

## Student Worksheet

Name \_\_\_\_\_



# AFTER YOUR VISIT

The Port of Seattle is pleased to have hosted your class. To “imprint” this experience in your students’ minds, you might want to try two or three of the following activities. It is extremely important to do the [Thank You Note](#) activity as it reinforces the good things in the program and can help us improve the program.

## **THANK YOU NOTES**

The format and address is provided for your students to practice this pleasantry.

## **SUITCASE OF SOUVENIRS**

This lesson is designed to promote recall of objects, products and ideas learned on the tour in a creative and hands-on strategy.

## **MANIFEST MATH**

This lesson integrates facts about the Port of Seattle and basic mathematics skills.

## **PORT OF SEATTLE IN 100 YEARS**

The purpose of this lesson is to encourage students to take the knowledge they have about the world today and to project into the future how the world of tomorrow might be.

## **PORT INVESTIGATOR**

This is designed to give students an opportunity to do research and report back on some aspect of the Port of Seattle or some aspect of international trade.

**INTERNATIONAL TRADE COLLAGE** This lesson helps students see the number of products which pass throughout ports as international trade.

## **PRODUCT POSTCARDS**

This lesson is designed to help your students focus on some of the products that come through the Port as international trade.

## **PORT MURAL**

This lesson will help students recall the tour, bring closure to your field trip and provide you with a stunning visual for your classroom.

# THANK YOU NOTES

Grades: 1-6

EALR's: Communication: 2.1, 2.2

Writing: 1.2, 1.3, 2.1, 2.2

SS-Economic: 1.5

## WHAT'S THIS LESSON ABOUT?

Thank you notes are a courteous way to respond to the field trip. The notes also help the Port of Seattle staff because they reinforce good aspects of the program and may also suggest changes.

## MATERIALS

Paper and pencil is needed for writing or copies of the Thank You Note Form for younger students. An envelope to mail the notes is necessary; one large one if you want to pool them, individual ones if you want the students to practice addressing.

The address is:

**Port of Seattle**

**Public Affairs**

**Sea-Air School Staff**

**P. O. Box 1209**

**Seattle, WA 98111**

## HOW ARE WE GOING TO DO IT?

1. Ask students to take out pen/paper or distribute copies of Thank You Note Form.
2. Review some highlights of the trip. Encourage students to be specific in their praise and suggestions.
3. Have them write their notes.
4. Encourage students to create a border symbolic of the Port to personalize their note.
5. Collect and place in envelope to be sent to the Port of Seattle.



# SUITCASE OF SOUVENIRS

Grades: 3-6

EALR's: Art: 1.1, 1.2, 1.3

Communication: 1.1, 1.2, 2.2

SS-Economic: 1.1, 1.2

## WHAT'S THIS LESSON ABOUT?

This lesson is designed to promote recall of objects, products, and ideas learned on the Port of Seattle tour. While primary teachers may feel it is especially designed for their students, intermediate teachers will find their students easily engaged in the activity. The lesson stimulates creative thinking and provides for hands-on action.

## MATERIALS

A small suitcase or a box (boot boxes work well) decorated to look like a suitcase. (Some of your students may enjoy making the "suitcase" for the activity.)

Additionally, construction paper of various colors, scissors, glue or paste and color crayons. Brads, for movable parts, would be a stimulus to creativity.

## HOW ARE WE GOING TO DO IT?

1. Display the suitcase. Ask the students what a suitcase usually indicates. (A trip, someone is leaving, a vacation.)
2. Ask the students what usually goes inside a suitcase. (Clothing, things you don't want to leave behind, things you don't want to forget.)
3. Ask the students what trip they just had. (Trip to Port of Seattle.)
4. Tell them this suitcase is a souvenir suitcase. Discuss what a souvenir is. (Something given or kept as a remembrance.)
5. Explain that they came away from the Port of Seattle tour with memories. These memories are called knowledge. We want to remember this knowledge, so we are going to pack our souvenir suitcase.
6. Brainstorm knowledge of the Port of Seattle that they want to remember. List on board or overhead.
7. Tell the students they will make one of these memories out of construction paper to pack into the suitcase.
8. After the students have finished construction of their souvenir, ask each to share it with the class, telling what it is and why they want to remember it. Then have them "pack" it in the suitcase.
9. You may want to let students check out the suitcase, like a library book, to share with their families.

# MANIFEST MATH

Grades: 4-6

EALR's: Communication: 3.2, 3.3

Math: 1.1, 1.2, 2.1, 3.1, 3.3, 4.2, 5.3

Reading: 1.1, 1.2, 2.1, 2.2

SS-Economic: 1.1, 1.2, 1.5

## WHAT'S THIS LESSON ABOUT?

This lesson is designed to integrate facts about the Port of Seattle and basic mathematics skills. These problems could be done as a whole class oral activity, as a cooperative learning group review of the tour, or as an individual application of information.

## MATERIALS

Copies of the Manifest Math practice sheet for each of your students.

## HOW ARE WE GOING TO DO IT?

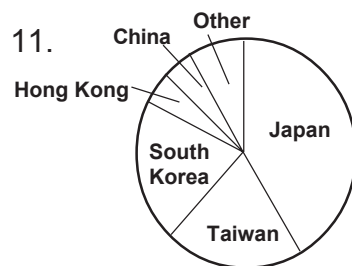
1. Pass out a copy of the Manifest Math sheet to each of your students.
2. Ask the students what a "manifest" is. Confirm or tell them that while there are many meanings for the word, we are using it the way the Port would. A manifest is a list of the ship's cargo. It is signed by the ship's master and is used by the officials of the port. Tell them that Manifest Math uses numbers that are used at the Port of Seattle.
3.
  - a. If you have chosen to do this activity as a whole group, you might have the students all do the problems and then ask one child to demonstrate how he/she did it. Then ask if anyone did it another way.
  - b. If you have chosen to do this activity as cooperative learning groups, you might assign a given number of problems for the students to do independently. Then they meet with their cooperative group to share and compare answers, coming up with one answer sheet from the group.
  - c. If you have chosen to do this activity as an individual application, simply assign the paper. You might consider giving students points for trying a problem, if they don't get it right. Stress that they must show their work.
4. As a culminating activity, ask each child to make up a Manifest Math problem of their own. Share it with a partner, solving each other's. Encourage partners to share their problems with the class.

**ANSWER KEY:** 1. containership 2. bulk carrier 3. bulk carrier

4. 5 5. 1786 ft. 6. 76 ft. 7. 2643

8. 261 feet in length, 12 ft. in draft, 48,518 in tonnage

9. 164,735 tons 10. 420



# MANIFEST MATH

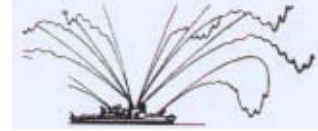
## Student Worksheet

Name \_\_\_\_\_

### VESSELS IN ELLIOTT BAY



**AUTO CARRIER:**  
Length: 593 ft; Draft: 28 ft;  
Tonnage: 45,000 deadwt. tons



**SEATTLE FIRE DEPT.  
FIRE BOAT:** Length: 124 ft.



**BREAKBULK:**  
Length: 532 ft; Draft: 32 ft;  
Tonnage: deadwt. tons



**CONTAINER SHIP:**  
Length: 900 ft; Draft: 42 ft;  
Tonnage: 61,000 deadwt. tons  
Capacity: 4,400 TEUs (20-foot boxes)



**TUG:**  
Length: 136 ft;  
Draft: 15 ft;



**BULK CARRIER:**  
Length: 793 ft; Draft: 44 ft;  
Tonnage: 73,669 deadwt. tons



**TROLLER:**  
Length: 48 ft.



**BARGE:** Length: 400 ft; Draft: 12 ft;  
Tonnage: 12,000 deadwt. tons

1. Which vessel is the longest?
2. Which vessel is the heaviest?
3. Which vessel needs the most water to sail in?
4. How many tugs could fit on a container ship?
5. What is the total length of a bulk carrier, a barge, and an auto carrier?
6. How much smaller is a troller than a fireboat?
7. How many 20-foot container boxes fit on a containership?
8. Find the difference in length between a bulk carrier and a breakbulk.
9. Add the deadweight tonnage of a containership, a barge, an auto carrier, a bulk carrier and a breakbulk vessel.
10. If 70 oceangoing vessels call at the Port of Seattle in one month, how many come to Seattle in six months?
11. Draw a pie graph that shows we get 44.1% of our trade from Japan, 5.5% from South Korea, 6.8% from Taiwan, 3.4% from Hong Kong, 21.6% from China and 18.6% from other countries.
12. Using numbers on this page, or from your notes of the tour, make up a Manifest Math problem of your own. Pass it to a friend to solve when your teacher tells you to share it.

# PORT OF SEATTLE IN 100 YEARS

Grades: 3-6

EALR's: Communication: 2.1, 2.2

Reading: 1.1, 3.1

Writing: 1.1, 1.2, 2.1, 2.2

SS-History: 1.2, 1.3, 3.2

SS-Geography: 2.1, 2.2, 2.3

## WHAT'S THIS LESSON ABOUT?

The purpose of this lesson is to encourage students to take knowledge they have about the world today and to project into the future how the world of tomorrow might be. While this is designed as an intermediate activity, primary teachers may find the port of the future a worthwhile discussion topic with their students.

## MATERIALS

Copies of the [Notes on the Port Book](#) for every student.

## HOW ARE WE GOING TO DO IT?

1. Refer to the teacher's page for the [Notes on the Port Book](#).
2. Instead of making a book noting facts and figures, change the focus to answering the same questions, but as if they were students who had just completed the tour of the port 100 years in the future. Encourage the students to blend drawing with words.
3. Encourage them to be thoughtful, humorous, or fanciful, but to base their predictions on the information learned on the Port of Seattle tour.
4. Showing primary level picture books often gives students a sense of color, style, and theme. Encourage the students to do careful, detailed work.
5. Share the books in a "round robin." Tell each student to pass his/her book to next person. Read that book. Pass it on. Keep on reading and passing until all the students have had an opportunity to read each other's books.
6. Spend some time on debriefing. Ask what they noticed as common themes. Were the predictions hopeful? Did they see themselves in the predictions? What, generally, was the state of the world? Had Washington changed?

# PORT INVESTIGATOR

Grades: 4-6

EALR's: Communication: 1.1, 1.2, 2.1, 2.2, 2.3, 2.5

Reading: 1.1, 1.2, 2.1, 2.2, 3.1, 3.2

SS-History: 1.1, 1.2, 2.1, 2.2, 2.3

SS-Geography: 2.3, 3.1, 3.3

SS-Economic: 1.5

## WHAT'S THIS LESSON ABOUT?

Port Investigator is designed to give students an opportunity to do research and report back on some aspect of the Port of Seattle or some aspect of international trade. This information is then reported back through a speech and visual aid. This activity is probably better with older students who are more ready for independent research.

## MATERIALS

Students will need access to books, magazines, newspapers and the internet with information about ports and trade. There are also a number of pamphlets available from the Port of Seattle.

## HOW ARE WE GOING TO DO IT?

1. Remind students that they have learned a lot about ports and international trade. Now they will have a chance to do some research on a topic they are interested in and report back to the whole class.
2. Ask students to choose a topic, do research for a two minute speech. This will be shared with the class.
3. Students should also prepare a visual aid/poster to be used during the speech. Remind them that the picture should be large enough to be seen by everyone and the letters should be large and clear. The poster should also be neat.
4. Arrange dates and times for research.
5. Arrange dates and times for presentations.

# INTERNATIONAL TRADE COLLAGE

Grades: 1-6

EALR's: Art: 1.1, 1.2, 4.1, 4.2

Communication: 1.1, 1.2, 1.3

SS-History: 2.1, 2.3

SS-Economic: 1.5

## WHAT'S THIS LESSON ABOUT?

This lesson helps students see the number of products which pass through our ports as international trade.

## MATERIALS

Make enough copies of the [International Trade Collage Assignment](#) for your class. Additionally, your students will need pictures of trade items from magazines and newspapers, or the internet, and white or colored paper to use for background. Any size will work but we recommend 16" by 20". If the students will complete the assignment in class, they'll need glue, scissors, lettering guides and marking pens.

## HOW ARE WE GOING TO DO IT?

1. Begin by helping students recall some of the items they saw and heard about as cargo at the Port. They may also recall other products they have found or researched.
2. Tell students that they will do a visual picture of Pacific Rim trade by creating a collage.
3. Distribute copies of [International Trade Collage Assignment](#) sheet. Go over the instructions

You will need to decide whether this is to be worked on in class, in which case you will need work time and supplies, or as an out-of-class assignment. In either case, you might distribute the background paper, if you are concerned about uniformity of size.

4. Give a time for the project to be finished.
5. When students are done, you might have them share theirs with a small group or with the whole class. These collages would be appropriate for a display bulletin board in the classroom, library or a common area of the school.

# INTERNATIONAL TRADE COLLAGE ASSIGNMENT

## Student Worksheet

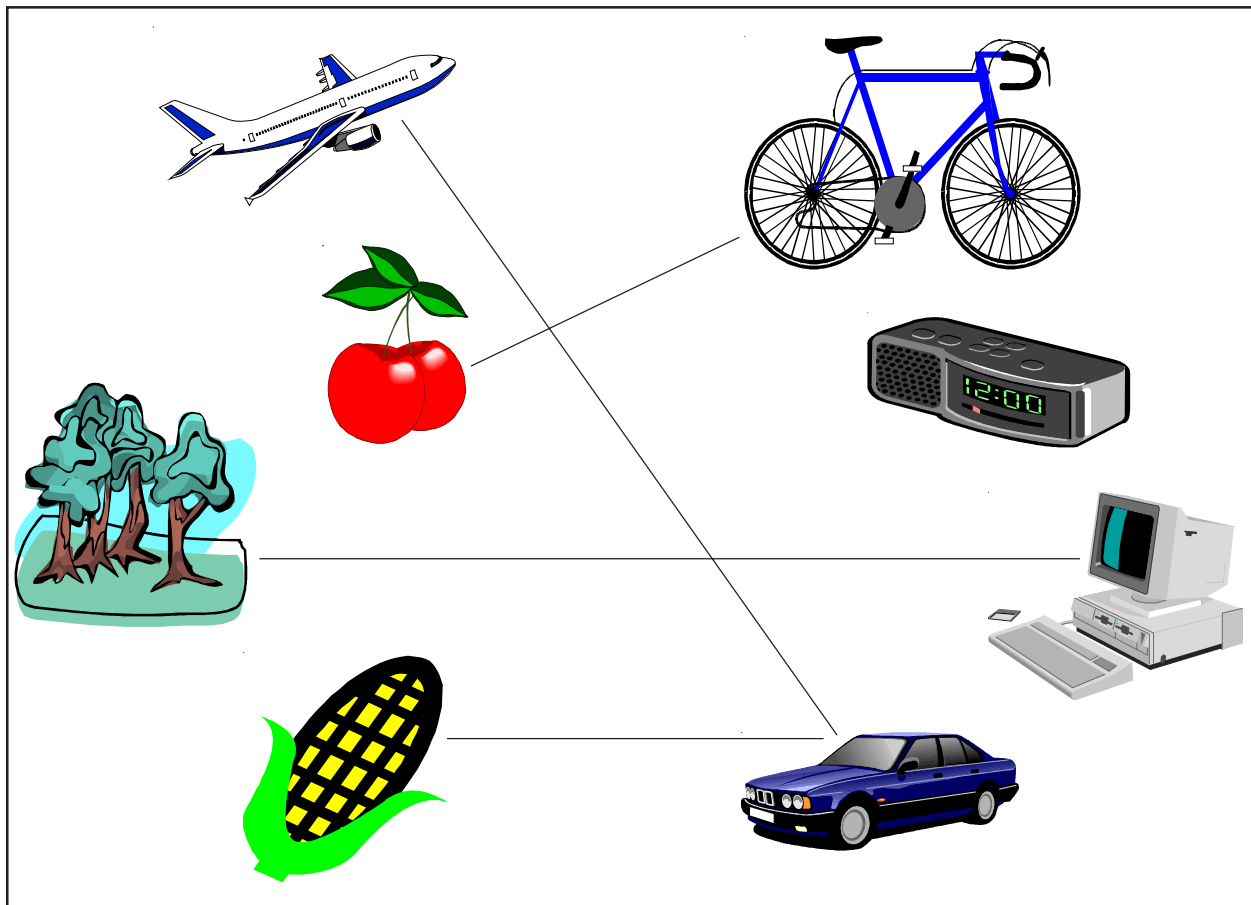
Your task is to find a way to visually show international trade through the Pacific Rim. You will create a collage of pictures which you find and drawings which will show products and trade in the Pacific Rim.

Although you can choose your arrangement and theme, you might consider:

- A. Showing products from various countries.
- B. Arranging your products in an outline of the Pacific Rim.
- C. Demonstrating that trade is not merely between the U.S. and other countries, but between other countries of the Pacific, as well.

You can draw a background or create an abstract background. Here's an example, but you let your own creativity loose!

### Pacific Ties Collage



# PRODUCT POSTCARDS

Grades: 4-6

EALR's: Communication: 1.1, 2.1, 2.2

Writing: 1.1, 1.2, 1.3, 2.1, 2.2, 3.1, 3.2, 3.3

SS-Economics: 1.1, 1.5

## WHAT'S THIS LESSON ABOUT?

Product Postcards is designed to help your students focus on some of the products that come through the port as international trade. Students make postcards with a product sketched on one side and a note to a “pen pal” in the country where the product originated telling them how we use the product here in the United States. This ties directly into the Import Detective activity, as well. Students could write about products they hear mentioned or see on their tour; they could also choose a product they have found in their own home.

## MATERIALS

Students will need half a sheet of 8-1/2" X 11" paper. The cards will be slightly larger than normal, but perhaps easier to illustrate and write. Students could be responsible for two cards.

## HOW ARE WE GOING TO DO IT?

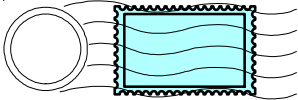
1. Remind students that they heard a lot of products mentioned on the tour that come to the United States for our use. We found many of these products in Import Detective, if you chose that activity. Today we will tell someone in a foreign country about how we use a product that comes from their country.
2. You might ask how many people have received a postcard from a foreign country and how many have sent postcards to a foreign country.
3. Tell them that today they will write a postcard(s) to an imaginary pen pal. This person will live in a country from which we get a product we use (a car might be Korea, clothes might be Hong Kong, computers might be Japan, or leather goods might be Mexico.)
4. On one side, students will sketch the product. On the other side, they will write a note and write an address. (A sample is included)
5. Allow students to decorate as appropriate with crayons, markers, and/or colored pencils.
6. These could be made into a “product mobile” by punching a hole in the card and using yarn to tie them to a frame/hanger.

# SAMPLE POSTCARD

## Student Worksheet



FRONT

<p>Dear Pen Pal,</p> <p>Our family just bought a new Hyundai. It came from South Korea, and it is a great car.</p> <p>I like the stereo CD player.</p> <p>I'm glad we bought a Korean car.</p> <p>Your friend, Anne</p>	 <p>Pen Pal Seoul South Korea</p>
---	---

BACK