



K^{TO}
3

The Port in My Town

This lesson on careers is informed by the big idea of Community. Students demonstrate, through art and writing activities, the skills of cooperation and collaboration as they learn about the jobs and technologies in the port community of Prince Rupert. The lesson is most suitable for Grades 2-3 but can be readily adapted for K-1.

(Note that the images used in Activity 2 may also be used for the K-3 Trade, Transportation and Environment lessons.)

CLASSROOM TIME REQUIRED

Two sessions of 40 – 50 minutes each.

LEARNING OBJECTIVES AND OUTCOMES

Students will:

- Develop an awareness about pursuing careers related to the Port of Prince Rupert, and to international trade and transportation by:
 - Painting images of technologies used in types of work related to the port of Prince Rupert
 - Creating original art and pieces of writing based on work and work-related objects in their community
- Identify effective work habits (e.g. staying on task, being prepared, co-operating with others)
- Demonstrate an awareness of how work in a community benefits others and is influenced by the natural environment

MATERIALS REQUIRED

Activity 1

- Computer and projector or Smart Board
- Chart paper or black/white board and appropriate markers
- Port equipment, vehicles and vessels slide show (available from Learning Gateway site)

Activity 2

- Overhead projector or computer and projector
- Large piece of paper or two pieces taped together
- At least 4 buckets – 2 with water and 2 empty
- Mop and bucket

- Towels
- Newspaper or drop cloth (to protect the floor)
- Tempura paints of various colours (e.g. red, blue, yellow, green, purple, orange, black, brown, white)
- Brushes for all students (can have brushes of various thicknesses)

Activity 3

- Computer and projector or Smart Board
- Paper for drawing
- Copy of *Persistence and Change*
- Career/job videos (see *Lesson Plan Resources* below)
- Job and equipment word list (see *Attachments* below)
- *Sentence Starters* (see *Attachments* below)
- *Team Work Self-Evaluation Rubric* (see *Attachments* below)

TECHNOLOGY RESOURCES REQUIRED

Projectors, computer and projector or Smart Board

TEACHER PREPARATION

Activity 1

- Set up projector and computer to show images of equipment
- Create a KWL chart

Activity 2

- Prepare outlines of equipment on large pieces of paper – use as many images as needed to have enough for groups of up to 4 students
- Project images onto paper and draw an outline of equipment
- Tape the paper to a large wall space, such as the gym
- Place newspaper or drop cloth on the floor under the pictures
- Collect 4 buckets or wash tubs – leave 2 empty, fill 2 with water
- Collect a mop and bucket and a set of towels
- Have art materials ready, paint, brushes and water cups

Activity 3

- Set up computer and projector or Smart Board to show videos
- Have paper ready for drawing
- Photocopy sentence starters or write them on the board (see *Attachments* below)

CRITICAL VOCABULARY (see Glossary for definitions)

Job / Occupation	Equipment / Tools
Canadian Border Service Personnel	Dog, x-ray machine
Coast Guard Navigation Officer	Coast Guard ship, buoy, beacon/lights, channel marker
Longshore Worker / Stevedore	Gantry crane, bomb cart, forklift, cargo loading
Marine Pilot	Merchant ship
Train Operator/Railway Engineer	Railway locomotive
Drayage Truck Driver	Truck, bomb cart
Tug boat Captain	Tug boat
Welder	Welding machine

LESSON DEVELOPMENT

Activity 1

- Show students a slide show of the following images:
 - Container ship
 - Break Bulk ship
 - Coal conveyor belt
 - Hyster fork lift
 - Gantry crane
 - Silo
 - CN train engine
 - Quick Load truck
 - Marine tug boat
 - Coast Guard vessel
 - CBSA container and personnel
- Explain that people use these pieces of equipment in their jobs at the port in Prince Rupert. Ask whether the students know someone who uses this equipment in his or her job.
- Lead a discussion with the class about the objects in the photographs. Questions could include:
 - Do you know anyone who uses this equipment in their job?
 - What do you know about the equipment?
 - Do you know what the equipment is used for?

- What port terminal is the equipment used at?
- Write the name of the equipment on a KWL chart and use the chart to record what the students **already know** and what they **want to know** about how the equipment is used in people's jobs.

Example of KWL Chart

What I know?	What I want to know?	What I learned?

Activity 2

- Review with students the names of the equipment and the fact that they are used by people in their jobs at the port terminals in Prince Rupert.
- Explain to the students that they will work in groups to paint the images that are set up around the room but that they will first practise some painting techniques on their own piece of paper.
- Place students in groups of 4. Assign one student from each group to collect for their group:
 - Paint
 - Paint brushes
 - Clean water in cups
 - Paper
- Demonstrate how to clean the brushes with water before changing colours so that the colours do not become muddy.
- Demonstrate two painting techniques that students can use and have students try them on their own paper.
 - Demonstrate how to wet the paper with the brush and then paint over it. Ask: What does this effect remind you of? (The paint should run and spread across the paper. Artists use this technique for painting water or sky.)
 - Demonstrate a dry brush technique by squeezing out the water from the brush, and then dipping it in the paint. Ask: What happens when you use a dry brush with paint? (This technique is good for painting small objects or lines.)
- Have students try painting with the two techniques on their own paper. Have students notice what happens by asking:
 - What happens when you use two colours and the wet paper technique?
 - What happens when you combine both techniques in the same space?
- Review with students how to work in groups. For example:
 - Listen carefully
 - Make sure everyone has a turn to speak and has a part to do
 - Be positive – no “put downs” or discouraging words
 - Give reasons for your opinions
 - Speak softly

- Show students where to dump dirty water and get clean water. (Have two buckets for this: one empty and one with clean water.) Show students how to use a mop and indicate where there are towels if they spill.
- Assign students an image by group choice or teacher choice.
- Have students complete each picture and then let them dry.
- As students paint, suggest that they put themselves into the picture or add other items that are relevant to the picture.
- Clean up by assigning one job for each student in each group:
 - Fold up newspaper and dispose, mop floor around your group's area
 - Dump out dirty water in bucket and clean water cups
 - Clean paint brushes in clean water bucket
 - Put paint away as directed by teacher
- To close the activity, have groups tell the rest of the class about their picture: what it is and what is happening in it.

Activity 3

- Choose an occupation video for each of the painted images. In preparation for watching the videos:
 - Review with the students the names of the equipment displayed in the classroom on their large painted pictures
 - Ask the students, as they watch the videos, to think about:
 - What jobs the people are doing
 - What equipment they are using
 - How the job helps others or how it provides a good or a service
 - Which of these jobs the students might be interested in doing when they are older
- Explain to students that after they have watched and discussed each video they will be drawing a picture about the job that most interests them. The picture will show the student doing the job and the equipment required by the job.
- Watch the video about each job stopping to discuss the key aspects of the how the equipment is used in the job and its relation to Prince Rupert.
- Fill in KWL chart with students' responses.
- Display the word list with the name of the piece of equipment and the job that goes with it. (See *Attachments* below.)
- Ask students to find a partner and share which job out of the ones that they have just learned about they would most like to do the and why.
- Invite students to share their favourite job, and the reason why it is their favourite, with the class.
- Have students draw themselves doing the job that they would like to do and using the appropriate piece(s) of equipment.
- Ask students to label the picture with the name of the job and the name of the piece of equipment.
- Have students write a sentence or paragraph about:

- The tasks and actions they would do if they were doing that job
- How the job helps others or provides a good or a service

Students can use their own sentences or they can use sentence starters to write about the picture they have drawn. (See *Attachments* below.)

Invite students to show their picture and read their sentence or paragraph to the class. Alternatively, you may show the pictures and read the sentences on behalf of the students.

ASSESSMENT

Activity 1

Use the KWL chart to map and record students' learning about the jobs and the technology (equipment and materials) at the Port of Prince Rupert.

Activity 2

Lead students through the development of an evaluation rubric at the beginning of the lesson. The process of developing the rubric with the students could include:

- Students brainstorm criteria
- Teacher and students negotiate criteria
- Using student language, co-develop standards, or a rubric outlining the how the students will work together

Cooperation and collaboration in group-work could look like:

- Listening carefully
- Making sure everyone has a turn to speak and has a part to do
- Being positive – no “put downs” or discouraging words
- Giving reasons for your opinions
- Speaking softly
- Completing your jobs

Students can use the *Team Work Self-evaluation Rubric* to assessment their own participation/contribution. (See *Attachments* below.)

Activity 3

Check for students' understanding of how the job that they have chosen benefits others and how the equipment associated with the job is used.

MODIFICATIONS

Activity 2

- If you have access to enough projectors (i.e. at least 4 – 6), students can trace and then paint the outlines of the images themselves.
- Students could complete just Activity 3 instead of Activity 2 and 3. Students can draw their own pictures and paint or colour them using watercolours, pastels, or markers.
- Modify the assessment by reviewing the self-evaluation sheet at the beginning of the activity and have students fill it out at the end of the activity.

Activity 3

- Students can use approximated writing, copy pre-written words, dictate to a scribe or write a sentence or paragraph.
- Instead of watching the individual job videos, the video of the Fairview Terminal, Ridley Terminal and Prince Rupert Grain Terminal could be shown.

EXTENSIONS

Art activities:

- Use the large painted images to transform your classroom into a port.
- Complete Activity 1 and 2 during a visit to the Port Interpretive Centre.

Writing activities:

- Write about a port job from the perspective of a ship, train, truck, or piece of equipment.
- Write a travel log about where a ship, train, truck or piece of equipment goes during a day or a week.

LESSON PLAN RESOURCES

Career Videos

- Canadian Border Service Agency, CBSA officer in Prince Rupert: <http://www.youtube.com/watch?v=gAVkd7gQtjQ>
- Coast Guard – Navigation, Engineer, Fleet officers: <http://www.ccg-gcc.gc.ca/eng/CCG/Careers>
- Longshore Workers
 - Female Gantry Crane Operator: <http://www.youtube.com/watch?v=H39kYfNx8XA>
 - Longshore Worker in Prince Rupert operates a gantry crane: <http://www.careertrekbc.ca/episode/long-shore-worker#>
 - Photo essay on a day in the life of a longshore worker: <http://www.bcshippingnews.com/photo/longshoremen-work>
- Marine Pilot: <http://www.bcshippingnews.com/video/bc-coast-pilots-masters-orders-and-pilots-advice-part-seven>
- Train Engineer/Truck Driver <http://www.careervideos.com/>
- Tug boat Captain/1st Mate: <http://www.careervideos.com/>

ATTACHMENTS

- Job and equipment word list (below)
- Sentence Starters (below)
- Team Work Self-Evaluation Rubric (below)

Port Job and Equipment List

Job / Occupation	Equipment / Tools
Canadian Border Service Personnel	Dog, x-ray machine
Coast Guard Navigation Officer	Coast Guard ship, buoy, beacon/lights, channel maker
Longshore Worker / Stevedore	Gantry crane, bomb cart, forklift, cargo loading
Marine Pilot	Ship
Train Engineer	Train Engine
Truck Driver	Truck, bomb cart
Tug boat Captain	Tug Boat
Welder	Welding machine

If I was a Coast Guard Officer, I would keep ships safe by

If I was a Marine Pilot, I would spend my day

If I was a longshore worker, I would use a _____ to
(gantry crane, bomb cart, forklift, reach stacker)

If I was a Canadian Border Service Agent,
I would keep people safe by

If I was a _____, I would fix machines by
(mechanic, electrician, welder)

If I was a train engineer, I would be great at

If I was a truck driver, I would be great at

If I was a _____, I would be great at

Team Work Self – Evaluation Rubric

As a team member I:

😊😊	😊	☹️
Did all of my work	Let my partners do some of my work	Let my partners do all of my work
Helped my partners and let others help too	Only helped my partners when they asked me	Did not help my partners
Listened carefully to my team's ideas and use their ideas to help get new ones	Listened carefully to my team's ideas	Did not listen to my team's ideas
Asked questions of my team to help us figure out what to do and create new ideas	Asked questions of my team to help us figure out what to do	Did not ask questions or asked questions that did not help the team
Exchanged ideas using 'I' statements and tried to explain my thinking to my team	Exchanged a few ideas with my team	Did not contribute any ideas to my team
Respected the opinions of my team by offering encouragement and support for new ideas	Respected the opinions of my team and supported new ideas	Did not respect the opinions of my team and did not support new ideas
Participated in each activity enthusiastically to the best of my ability	Participated in each activity	Did not participate