Lesson: **Dark Day at Second Narrows**

**Lesson Activity 1**: Outline for class discussion

**Notes prepared by A. Cornes**

**ESSENTIAL QUESTION FOR CLASS DISCUSSION:** *What was the cause of the collapse of Ironworkers Memorial Bridge?*

**Introduction:** This lesson is designed to be taught in conjunction Career Life Education 10, Career Life Connections, Work Experience, Social Justice 12 and Law Studies 12. The homework assignment and the class discussion touch directly on the content of Career Life Education 10 with respect to health and safety inspections and the causes of injury to young workers.

Through extended activities, discussion can also touch on aspects of Law 12 with specific reference to criminal law (Westray amendments to the criminal code), civil law (negligence, liability, contract law, legal remedies).

Prior to showing the vignette, the teacher should ask the class whether they have ever crossed the Ironworkers Memorial Bridge at Second Narrows. Locate it on a map or have them do so. [Metro Vancouver Satellite Map](https://metrovancouver.org/school-programs/Documents/regional-satellite-map.pdf)

Then read the first page of the introduction to “The Tragedy In Brief: Then and Now” (Appendix 1) up to and including the sentence that reads: “There we no major challenges that could not be handled in the first two years of construction. Things ran smoothly until June 17,1958.”.

**Start the video; Dark Day at the Second Narrows**

Once the video is finished, the teacher should review with the students the section of the reference notes (Appendix 1) dealing the Coroner’s Inquest, the findings of the Royal Commission, and Beyond the Commission of Inquiry. Teachers can then solicit some class discussion with the following prompts: (answers have been provided to assist with the discussion but should not be viewed as definitive)

1. **Was the collapse of the Ironworkers Memorial Bridge (then the Second Narrows Bridge) preventable?**

Answer: Considering the findings of the Inquiry Commission and the comments of Eric Jamieson, author of *Tragedy at Second Narrows,* the collapse was preventable when the following four problems occurred:

* 1. **Only one supervisor approved calculations made by the assistant field engineer**. Murray McDonald, was the only supervising engineer assigned to approve the work of John McKibbin, the assistant field engineer. McKibbin was twenty-three years old and two years out of university. This supervisory arrangement grew out of the company’s unwritten policy of (isolating major projects—meaning that one project group of the company worked in total isolation of another and did not use resources or staff of another project. In this case it meant that McKibbin’s work was only checked by McDonald who had many other significant responsibilities.

**Remedy Required:** Ensure that at least one additional experienced senior engineer approves calculations.

* 1. **Lower standards for falseworks (temporary support structure) were applied making the structure unsafe.**

**Remedy required:** Materials used in the construction of falseworks should have the same material strength requirements as materials used in the main construction of the bridge.

* 1. **One I-beam in the structure that collapsed was not up to standard.** (*The beam in cross section looks like an “I” and sits on top of a pillar.)*

**Remedy Required:** Review to determine what steps need to be taken with respect to quality control of component parts of the structure.

* 1. **The use of “soft packing” for the beams that supported the temporary tower was a contributing cause of the collapse.**

**Remedy required:** Review to determine how the beams that supported the temporary tower will be soft packed in the future.

1. **The Ironworkers Memorial Bridge is one of three connections between Vancouver and the North Shore. Why is it so important?**

Answer: Th**e** three current connections are Ironworkers, Lions Gate and the Seabus. The Ironworkers is a vital connection between the North Shore, the communities that lie to the north—Squamish, Whistler and Pemberton and the lower mainland. It is also a vital commercial corridor to Vancouver Island via BC Ferries.

1. **What is a disaster? Would you call the collapse of the bridge a disaster?**

Answer: The Oxford dictionary defines a disaster as “...a sudden accident or a natural catastrophe that causes great damage or loss of life.

1. **What is the difference between a sudden accident and a natural catastrophe?**

Answer: The term **“accident**” can be defined as an unplanned event that interrupts the completion of an activity and may (or may not) include injury or property damage. It can include both human error, human neglect or a natural catastrophe.

**A natural catastrophe** is a major adverse event resulting from natural processes of the Earth examples includes floods, volcanoes, earthquakes, tsunamis and other geological processes.

1. **Under what circumstances are authorities required to conduct investigations into workplace safety? What is the purpose of the investigation?**

Answer: In situations that present a high risk of causing a serious injury or death and accidents(incidents) and natural catastrophes that have caused a serious accident or death.

Investigationsdetermine the causes and underlying factors

* Provide recommendations to industry to aid in the prevention of future injury and disease
* Gather information to help monitor and analyze industry trends on workplace fatalities, serious injuries, and diseases
* Identify associated compliance issues and help ensure compliance with law, regulation, and policy
* Refer cases for prosecution or administrative penalties, when necessary

1. **Why is it important to determine the causes of an accident?**

Answer: The term "accident" can be defined as an unplanned event that interrupts the completion of an activity, and that may (or may not) include injury or property damage. In addition to comments in #4, determination of cause is required to fulfill any legal requirements, to determine the cost of an accident, to determine liabilities and other financial obligations.

1. **Your school is used by students, teachers, other employees, your parents and the public. What steps are taken to prevent accidents and to ensure that the building and grounds are healthy and safe? What steps are taken to ensure that unwanted people don’t come into the building?**

Answer**:** [The **BC Healthy School Initiative/Vancouver Coastal Health Authority School Inspection Guideline**](https://fisabc.ca/wp-content/uploads/pdf/School%20Inspection%20Guideline%20-%20Final-1.pdf) provides for school Inspections from the perspective of students: food services, communicable disease control, water supply, temperature, washrooms and change rooms, labs (handling of chemicals), exhaust ventilator, personal protective and safety equipment, indoor air quality, buildings and grounds, etc. Locate the Regional Health Authority Inspection Guideline document that applies to your school.

WorkSafe BC/BCTF Workplace Inspections provide support and direction for safe schools. Go to WorkSafe web for their information and search for the [BCTF Health and Safety Manual](https://www.bctf.ca/docs/default-source/services-guidance/health-safety/bctf_health_and_safety_handbook.pdf?sfvrsn=344f7b31_4) at on the BCTF website and locate the requirements for the conducting workplace health and safety inspections in your school. The [BC Public Schools Employers’ Association](https://bcpsea.bc.ca/sector-services/occupational-health-safety/ohs-topics/) also have resources on their website dealing with a range of health and safety topics.

1. **Where negligence can be shown arising from an accident, what remedies are available to parents, teachers, other employees, members of the public?** (Answer: civil lawsuits for injury or death, if an injured person proves that another person acted negligently to cause their injury, they can recover damages to compensate for their harm. A worker injured in the course of employment **cannot \***sue his or her employer, any other employer, or any worker who is a part of the B.C. workers’ compensation system and whose activities relating to the accident or disease also arose out of and in the course of employment. The Workers Compensation Act replaces lawsuits against employers and workers in a British Columbia workplace for injury, disease, or death caused to a worker acting in the course of employment. Compensation is provided without needing to establish that someone else was at fault for the accident.\*\*

*See* [*WorkSafeBC*](https://www.worksafebc.com/en) *for further details*

\* Key policies applicable to these sections of the WCA are RSCM II, Chapter 16, #110.00–

112.40.

[Generally, a worker has no right to sue an employer or another worker in the course of their](https://www.lslap.bc.ca/uploads/2/9/3/5/29358111/07_-_workers_compensation.pdf)

[employment for a workplace injury.](https://www.lslap.bc.ca/uploads/2/9/3/5/29358111/07_-_workers_compensation.pdf) Instead, they are entitled to benefits from the Board.

This is the “Historic Trade Off” discussed above and set out at s. 127 of the WCA [Former

Act, s. 10(1)]. Note that the conduct causing the injury must arise out of and in the course of

employment before this bar against litigation will apply. Actions outside of the course of

employment (for example, assault or criminal negligence) do not attract this bar against

litigation.

\*\*Note: Federal government employees are governed by the Government Employees Compensation

Act, RSC 1985, c G-5 which provides that injured federal government workers in a given

province are to have their claims addressed by the provincial administrative body in that

province.