

When the Stars Came Home

Additional Resources

Travelling the World

Level K – 8, see specific activities for each grade level

Student Groupings individual or small groups

Length 30 – 60 minutes

Brief Description: In the book Ojiiig moved with his family to a new city. In this activity students will investigate and discuss the math behind travelling between various locations and the different forms of travel involved.

Materials: Whiteboard/writing surface, computer

Preamble: When our book starts, we find Ojiiig heading to a new city. His family drives there by car. In this activity, we are going to think about times when you travelled away from home, whether for a vacation or to move and how you got there. We'll be comparing different distances you can travel and ways to get there.

Preparation: Students should have read the book and been asked to think in advance about a trip they've taken or a place they've moved.

Procedure:

Grades K - 2: ask each student in the class to describe a vacation they took or a time they moved somewhere new, or even a place they like to go (it can be local or far away). They should describe how they got there or would get there and how long it took/would take. The teacher can write the information in a table on the board with the following headings: location, mode, and time. Once all students have shared a story, they can discuss different modes of travel and compare distances they and their classmates have gone.



Prompting Questions:

- Who do you think went the furthest? Why?
- What is the difference between different modes of travel? Which ones go the fastest?
- If a mode of transport goes faster than another one, what can we guess about the distance travelled? What about the time it takes to get there? (ex: a plane vs a car vs a bike vs walking)
- Are there some places you can only get to via certain forms of transportation (ex: Europe by plane or boat - you couldn't drive there; or the middle of a forest by walking or bike or ATV)

Additional Activities:

- Students can look up places they'd like to go and find out how far away they are and decide what form of transportation would be best to get there and how long it might take. (Google Maps can help with this)
- As a class you can enter different destinations in Google Maps and look at the different options to travel there.

Grades 3 - 5: same as K - 2 activity but add recording the distance into the chart (Google Maps can help find this information). Students can then compare distance travelled with time and mode of transportation. They can compare walking to a location with biking or driving. Students can also investigate public transit options where available.

Group Investigation: have the students break up into small groups and choose a place they would like to travel to. They will then use Google Maps to plan their route and their modes of transportation. Encourage students to be creative (ex: camping in Algonquin park would require driving and then walking). Students will then describe to the class where they went, how far they went, and how long it took.

Grades 6 - 8: students will describe a place they have travelled to or would like to travel to and create a chart including location, mode of travel, distance travelled and time. As a class, discuss the different locations and how different modes of travel will take different amounts of time depending on the speed travelled.

In small groups have students choose a location they would like to travel to and break the route into various sections, describing the mode of transportation through each section, the speed they travel in each section, and then compare how different speeds affect the time of travel (ex: if I was going between two cities and travelled for 1 hour on the highway at 110km/hr and then for 1 hour in the new city at 40km/hr what distance did I cover on the highway vs in the town? Why is there a difference in the distance travelled if the time is the same? What about if I took a bike in the new city for an hour at 15km/hr?



Extension Activities:

- Have students calculate the exact distance travelled based on various travel times at specific speeds, or calculate time to go between locations given different speeds and distances.
- Have students plot a route to unique locations (ex: middle of a forest, a special event in the middle of a big city, a trip to Europe with multiple stops) and use multiple forms of transportation (including public transit where available)
- Have students plot a 'secret route' to a location and give it to another student to follow the route to see where they end up (ex: travel for 20 minutes east on this road at 40km/hr, then turn north and travel for another 15 minutes at 50 km/hr, etc...)

Indigenous Connections:

- Look up various reserves in Northern Ontario and Northern Quebec and see how to travel to them.
 - Fort Severn is a good choice. Typing it into Google Maps will show where it is located. Clicking on Directions will tell you that it can't be calculated. You can discuss with the students why this might be. Fort Severn is only accessible via non-traditional routes including unpaved roads, boats, and, in the winter, ice roads. You can discuss with students the issues being in this location might cause (like getting supplies there - meaning things cost more) and emergency care is harder to get. In the winter, if the ice roads don't freeze, there is no access in or out of the reserve. What issues could this cause?

