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| **“Where is Mr. Boehme?” Activity** |
| **Lesson Duration: 30 min.** |
| **OUTCOMES FROM ALBERTA PROGRAM OF STUDIES** |
| **General Learning Outcomes:*** Decimal Operations
	+ GLO: Develop number sense (Number)
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| **Specific Learning Outcomes:*** Decimal Operations
	+ SLO: N2. Demonstrate an understanding of the addition, subtraction, multiplication and division of decimals to solve problems (for more than 1-digit divisors or 2-digit multipliers, the use of technology is expected).
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| **MATERIALS AND SETUP** |
| * Laptops
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| **PROCEDURE** |
| 1. **Where is Mr. Boehme Activity**
* Tell the class that Mr. Boehme has gone somewhere and that they are going to figure out where he went
* Teach them about using estimation to add and subtract decimals (no calculators)
	+ Define overestimate and underestimate
	+ Teach them about front-end estimation and relative size
		- Front-end estimation: using the leading digits and their place values
			* E.g. 1234.56 + 2345.67 becomes 1000 + 2000
			* Is this an overestimate or underestimate?
		- Relative size: Estimate each number to the nearest number that is easy to work with
			* E.g. 290.33 + 220.50 becomes 300 - 200
			* Is this an overestimate or underestimate?
	+ Go through some examples with them of using both
		- Make up some examples to do together and then for students to try on their own
* “Where is Mr. Boehme?” activity
	+ Tell the students that Mr. Boehme had to go somewhere for the afternoon, so he couldn’t make it to class
	+ Tell them that I used Google maps to figure out how far it is, and these are the distances that it showed me (I used Stirling, AB as my starting point)
		- 0.45 km
		- 4.1 km
		- 19.4 km
		- 48.5 km
		- 1.6 km
	+ Have them group up and use laptops to find out where I went
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| **REFLECTION** |
| The students did this activity while I was gone. They really enjoyed it! When I got back, I was impressed with how precise they were with their guesses. |