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| **Lesson Title:****Percent of...** | **Date:**BC |
| **Overall Expectations:**Grade 7:  (O)demonstrate an understanding of proportional relationships using percent, ratio, and rate. (S) use estimation when solving problems involving operations with percents to help judge the reasonableness of a solution; determine, through investigation, the relationships among fractions, decimals, percents and ratios; solve problems that involve determining whole number percents using a variety of toolsGrade 8: (O) solve problems by using proportional reasoning in a variety of meaningful contexts. (S)  solve problems involving percents expressed to one decimal place and whole-number percents greater than 100; use estimation when solving problems involving operations with percents to help judge the reasonableness of a solution; solve problems involving percent that arise from real-life contexts

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**Learning Goals:****Success Criteria:** | **Assessment for/as Learning Opportunities:**Strings; ticket-out-the-door; quiz**Assessment of Learning:**Independent problem solving (Culminating Activity); Unit Test**Prior Knowledge/Readiness:**Understanding of relationship between fractions, decimals and percentAbility to multiply fractions by a whole number**Learning Skills:**Responsibility, Organization, Independent Work, Collaboration, Self-regulation |
| **Lesson Plan:****Minds  On**: **Problems:** 32 is \_\_\_\_\_% of \_\_\_\_\_\_I painted 50% of a picture red and 20% of another picture red . Which picture used more paint?**Extensions**: Exchange rates (Before Dean can go on a trip to Hong Kong, he must first exchange some of his Canadian money for Hong Kong dollars. At the beginning of the trip, he could buy 7 Hong Kong dollars for one Canadian dollar. When he returned, he would have to exchange 8 Hong Kong dollars for one Canadian dollar. If Dean ended up with 56 Canadian dollars and left with 1000 Canadian dollars, how many Hong Kong dollars did he spend?); interest |
| **Resources:***Big Ideas from Dr. Small: Creating a Comfort Zone for Teaching Mathematics* |
| **Homework Assignment:** | **Next Steps/Reminders:** |
| **Reflection:** |

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| **Lesson Title:****Sales Tax** | **Date:**BC |
| **Overall Expectations:**Grade 7:  (O)demonstrate an understanding of proportional relationships using percent, ratio, and rate. (S) use estimation when solving problems involving operations with percents to help judge the reasonableness of a solution; determine, through investigation, the relationships among fractions, decimals, percents and ratios; solve problems that involve determining whole number percents using a variety of toolsGrade 8: (O) solve problems by using proportional reasoning in a variety of meaningful contexts. (S)  solve problems involving percents expressed to one decimal place and whole-number percents greater than 100; use estimation when solving problems involving operations with percents to help judge the reasonableness of a solution; solve problems involving percent that arise from real-life contexts

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**Learning Goals:**- to calculate the final price of an item after tax is added**Success Criteria:**- accurately calculate sales tax -add sales tax to calculate the final price-estimate the final price of items including sales tax | **Assessment for/as Learning Opportunities:**Strings; ticket-out-the-door; quiz**Assessment of Learning:**Independent problem solving (Culminating Activity); Unit Teast**Prior Knowledge/Readiness:**Understanding of relationship between fractions, decimals and percentAbility to multiply fractions by a whole number**Learning Skills:**Responsibility, Organization, Independent Work, Collaboration, Self-regulation |
| **Lesson Plan:****Minds  On**: 10% of  100; 100 + 10%; Brief discussion of sales tax--how much is it? How is it represented in the final price of an item? Does it increase or decrease the price?**Problem/Action:** Provide  prices of a variety of items; the students will calculate the final price, including tax.**Extensions**: Explore sales tax rates in other provinces. How would this impact the cost of items?**Accommodations**: Use friendly numbers (10% for tax instead of 13%)**Consolidation:**Congress. Look at various ways in which students solved the problem. Look at ways students are able to show their thinking. |
| **Reflection:**Students should recognize the value of being able to estimate the final cost of an item, after tax, so that they will know what the final purchase price will be--Do they have enough money? |

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| **Lesson Title:****iPad Problem** | **Date:****KD** |
| **Overall Expectations:****Learning Goals:*** applying different tax percentages to given prices in order to pick the best price

**Success Criteria:*** predict what price will be the best choice for buying an iPad
* work through problems step by step
* show all work
 | **Assessment for/as Learning Opportunities:****Assessment of Learning:****Prior Knowledge/Readiness:****Learning Skills:**Responsibility, Organization, Independent Work, Collaboration, Self-regulation |
| **Lesson Plan:****Minds  On**:   **Action/Problem**:  You  want  to  buy  an  IPAD.  Your  parents  have  agreed  to  pay  half  the  price. You  have  done  your  research  and  narrowed  your  choices  down  to  these  three  options: 1. At  the  Apple  store,  it  costs  $500.00,  but  is  currently on  sale  for  35%  off.  Sales  tax  is  13%.
2. You  can  buy  it  online  from  a  store  in  Alberta  for  $450.00  plus  20%  off.   There  is  5%  sales tax  in  Alberta  and  a  shipping  charge  of  $7.50.
3. You  can  also  buy  it  online  from  B.C. for  $474.00.    It  is  discounted  by  ¼.   Sales  tax  in  B.C  is  12%  and  the  shipping  charge  is  $10.00.

Which  is  the  better  deal?**Extensions**: * Change numbers for the prices.
* Add in a care package for the iPad, to change the price.
* Change the kind and size of the iPad in order to add more to the price.

**Accommodations**: * make the numbers more friendly
* take away the tax
* calculate the tax for them in order to save that step
* compare two options rather than three.

**Consolidation:*** Students can see whether their original prediction was correct,
* realize how much prices can change within different provinces,
* see that a bit of research can get you a better price on merchandise you desire.
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| **Resources: https://bww.yrdsb.ca/services/cis/mathliteracy/Documents/AIM/Grade8-NumberSenseAndNumeration-ComparativeShopping.pdf** |
| **Homework Assignment:** | **Next Steps/Reminders:** |
| **Reflection:**Having students realize that they can make an educated decision about purchasing products such as electronics will allow them to realize that they can budget for such expenses. |