Lesson Title/Focus	**Solving Sums by Estimating**	**Date**	November 13th, 2014
Subject/Grade Level	Math/Grade 4	**Time Duration**	30 min. (First Period)
Unit	Chapter 3, Addition and Subtraction	**Teacher**	Taylor Fornwald

OUTCOMES FROM ALBERTA PROGRAM OF STUDIES	
General Learning Outcomes:	Develop Number Sense
Specific Learning Outcomes:	**Demonstrate an understanding of addition of numbers with answers to 10 000 and their corresponding subtractions by:** - Estimating sums and differences

LEARNING OBJECTIVES

Students will:

1. Develop strategies to estimate sums of three digit numbers.

ASSESSMENTS	
Observations:	• Use of manipulations to solve problems
Key Questions:	• How can you use a place value chart and manipulatives to estimate sums?
Products/Performances:	• Smart Board Examples • Assignment done on own

LEARNING RESOURCES CONSULTED	**MATERIALS AND EQUIPMENT**
• Alberta Program of Studies • Math Focus Four Text, Pg. 68-69	• **Smart Board Lesson "Estimating Sums"** • **Manipulatives for each student: 6 hundreds, 9 tens and 9 ones.** • **Whiteboards and markers for each student**

PROCEDURE

Prior to lesson	**- Have manipulatives split up for each student.** **- Smart Board Lesson open**	
Introduction		**Time**
Advance Organizer/Agenda	**Slide One:** - Today we are going to be learning how to estimate sums to solve problems. - I need each person to grab their math duotang, pencil and eraser, whiteboard, marker, and eraser. Tell them they have 20 seconds to do so. - Set timer on smart board, while timer is going hand out manipulatives to each student.	1 min.
Body		**Time**
Learning Activity #1	**<u>Sum Practice Problems</u>** **Slide Two:** - Draw a place Value Chart on your whiteboard - Ask students, what is estimating? Explain estimating, finding the approximate answer to a problem rather than the exact answer. **Slide Three:** - Example 1) Estimate the sum of 519+ 672. - Allow students to do on own. - Get "leader of the day" to come up and show estimated answer on smart board.	*15 min.*

	Slide Four: **-** Example 2) Each student in Lang's Class is writing a story that has more than 500 words. Lang Wrote a Three Page story. Did Lang write more than 500 words. - Have Image of pages and Number of words, (Pg. 1 245 words, Pg. 2 235 words, and Pg. 3 135 words) and place Value Chart with manupulatives on page. - Ask students to use their boards and manipulatives to estimate the answer. - Get "leader of the day" to pick someone to come up and show estimated answer on smart board. **Slide Five:** **-** Example 3) Jerome Iginla's goal is to have 2000 Points by the end of the season. The 17 years he played for the Calgary Flames he got 1144 points, 11 points the one year he played with the Pittsburgh Penguins, 31 points in the one year he played for the Boston Bruins and so far 7 points this year with the Colorado Avalanche. Has Jerome reached his goal? Will he by the end of this season? - Have image of each Hockey Team and total points under question and place Value Chart with manupulatives on page. - Ask students to use their boards and manipulatives to estimate the answer. - Get "leader of the day" to pick someone to come up and show estimated answer on smart board.	
Teacher Notes: Assessments/ Differentiation	- Reinforce the idea of estimating throughout lesson	*Throughout Lesson*
Learning Activity #2	**<u>Evaluating Sums Assignment</u>** **Slide Six:** **-** Here are some problems you can work on by yourself. You can use different ways of estimating, how we have been with the manipulatives and white board or any other way you can think of estimating. Write after each question how you estimated the answer. - 1) Estimate the sum of 567 + 813. Explain how you estimated the sum. - 2) Use Metal Math to calculate the top sum. Use the sum to estimate the sum below. 200 + 150= 198 + 152= Explain how you estimated the sum. - 3) Annie is the President of the Food Bank collection committee at her school. At the end of three weeks their goal is to have collected 1000 food items. After the first week they had collected 235 items, at the end of the second week 458 items and at the end of the third week 345 items. Did they reach their goal of 1000 food items? Explain how you got your estimate.	*15 min.*
Teacher Notes: Assessments/ Differentiation	- Wander and help students as needed. - Do question on board together if students are struggling with concept still.	*Throughout Assignment*

Sponge Activity/Activities	Students can get Math textbook and work on more problems from there if finish assignment early.

Lesson Title/Focus	**Estimating Sums in Different Ways**	**Date**	November 13th, 2014
Subject/Grade Level	Math/Grade 4	**Time Duration**	30 min. (Second Period)
Unit	Chapter 3, Addition and Subtraction	**Teacher**	Taylor Fornwald

OUTCOMES FROM ALBERTA PROGRAM OF STUDIES	
General Learning Outcomes:	Develop Number Sense
Specific Learning Outcomes:	**Demonstrate an understanding of addition of numbers with answers to 10 000 and their corresponding subtractions by:** - Estimating sums and differences

LEARNING OBJECTIVES

Students will:

2. Develop strategies to estimate sums of three digit numbers in different ways.
3. Practice estimating sums of three digit numbers in different ways.

ASSESSMENTS	
Observations:	• Using different strategies to solve problems
Key Questions:	• How can you use a various strategies to estimate sums?
Products/Performances:	• Smart Board Examples • Assignment done on own

LEARNING RESOURCES CONSULTED	**MATERIALS AND EQUIPMENT**
• Alberta Program of Studies • Math Focus Four Text, Pg. 70-72	• **Smart Board Lesson "Different Ways to Estimate Sums"** • **Whiteboards and markers for each student**

PROCEDURE

Introduction		**Time**
Advance Organizer/Agenda	**Slide One:** - We are now going to expand on what we learnt earlier today to use different ways to estimate sums. We are going to use our place value charts, adding the closer number, and using a number line. - I need each person to grab their math duotang, pencil and eraser, whiteboard, marker, and eraser. Tell them they have 20 seconds to do so. - Set timer on smart board.	30 sec.
Body		**Time**
Learning Activity #1	**<u>Sum Practice Problem</u>** **Slide Two:** - Draw a place Value Chart on your whiteboard. Example: Josh is planning to go for a walk on the below route in the Lethbridge Coolies, Indian Batttle Park. About how far will Josh walk? - Show image of map with distance, 1845m, then 1206m. - Get students to do with place value on whiteboards. - Have "Leader of the Day" come up and show answer. **Slide Three:** **- T**each students how to estimate by adding the closer thousand. Write out two numbers and show how 1845m. is	*15 min.*

<table>
<tr><td></td><td>closer to 2000m. and 1206m. is closer to 1000m.
- 2000m. + 1000m. is much easier to add and makes a good estimate.
Slide Four:
- Teach students how to use a number line to help estimate a number.
- Get one student to come up and stand to the far right of you in front of whiteboard, write the number 1200m. above the students head.
- Ask student how we could represent a thousand on a number line? Write ten ticks representing a hundred then have another student stand.
- Ask students what is 1200m. + 1000m.? Place 2200m. above this student.
- If we have 2200m. represented on our timeline about how many meters do we have left? 800. Write eight ticks and then have another student stand in place.
- Now what is our total if we were to add, 1200m. + 1000m. + 800m.= about 3000m.</td><td></td></tr>
<tr><td>Teacher Notes: Assessments/ Differentiation</td><td>- Reinforce the idea of estimating throughout lesson, and how answer should always state “about _____”.
- Don’t forget the m. for meters is always carried through.</td><td>Throughout Lesson</td></tr>
<tr><td>Learning Activity #2</td><td><u>Estimating Sums Assignment: Part Two</u>
Slide Five:
- Here are some problems you can work on by yourself. There are three questions and I want you to use one of the three ways we just discussed to estimate the answer. One question you must use place value chart, one question use adding to the closer thousand, and one question use a number line. Write how you estimated each problem.
1) Estimate the total attendance of Whoop Days this past summer.
<table><tr><th>Day</th><th>Attendance</th></tr><tr><td>August 21</td><td>796</td></tr><tr><td>August 22</td><td>2236</td></tr><tr><td>August 23</td><td>1887</td></tr></table>
2) The Grade Four and Five classes are helping decorate the school Christmas tree. The Grade Four class put 175 ornaments on the tree and the Grade Five class put 214 ornaments on the tree. About how many ornaments are on the school Christmas Tree?

3) Janelle and her Mother were baking Christmas cookies to give away for gifts to family and friends. The first day they baked 272 cookies and on the second day they baked 117 cookies. About how many cookies did they bake?</td><td>15 min.</td></tr>
<tr><td>Teacher Notes: Assessments/ Differentiation</td><td>- Wander and help students as needed.
- Do question on board together if students are struggling with concept still.</td><td>Throughout Assignment</td></tr>
</table>

Sponge Activity/Activities	- Finish previous assignment if not done yet - Students can get Math textbook and work on more problems from there if finish assignment early, pg. 72.

Lesson Title/Focus	**Estimating Sums Strategies**	**Date**	November 18th, 2014
Subject/Grade Level	Math/Grade 4	**Time Duration**	1 hour
Unit	Chapter 3, Addition and Subtraction	**Teacher**	Taylor Fornwald

OUTCOMES FROM ALBERTA PROGRAM OF STUDIES	
General Learning Outcomes:	Develop Number Sense
Specific Learning Outcomes:	**Demonstrate an understanding of addition of numbers with answers to 10 000 and their corresponding subtractions by:** - Estimating sums and differences

LEARNING OBJECTIVES

Students will:

4. Practice estimating sums.
5. Develop estimating sums strategies further.
6. Understand why we estimate.

ASSESSMENTS	
Observations:	• **Are students grasping different strategies?**
Key Questions:	• **Which strategy did you use to estimate the problem?** • **How can you decide whether to estimate or calculate to solve a problem?** • **How can you add 3-digit an 4-digit numbers?**
Products/Performances:	• **Sum Questions done on own and together**

LEARNING RESOURCES CONSULTED	**MATERIALS AND EQUIPMENT**
• Programs of Study • Math Focus Four Text, Pg. 81-82	•

PROCEDURE		
Advance Organizer/Agenda	**Slide One:** **-** Will be continuing on with our assignment from last day so everyone will need their math scribblers, one person to get whiteboard and eraser for each table - Review what a proper transition is. - Designate whiteboard getters from each table group. - Set timer for 1 minute to get supplies.	2 min.
Body		**Time**
Learning Activity #1	**Slide Two:** - Bring up assignment questions from yesterday and allow students to work on them	*15 min.*
Teacher Notes: Assessments/ Differentiation	- Help students while working on assignment. **Slide Three- Five:** - Bring up each question from assignment and go through answer with students on the board getting them to help you by asking what strategy they would use, and then going through one of the three strategies to solve each question with.	*15 min.*
Learning Activity #2	**Slide 6:** **-** Ask students, How can you decide whether to estimate or calculate to solve a problem? - Allow ten seconds to think and then allow 3 to 4 students to share.	*10 min.*

	- Explain to students that we estimate when you don't need an exact answer. That there is a goal in mind asking whether it has been met or it is asked about how many, far, etc. - Refer to Jerome Iginla's goal to score 2000 points. - Refer to Josh walking in Indian Battle Park and about how far he walked? We figured it out to be about 3000m. **Slide 7:** - What are all the strategies we have learned to figure out sums? - Allow students to share and write down answers (Base ten blocks, place value, number line, rounding to the closer number, mental math, number dots, etc.)	
Teacher Notes: Assessments/ Differentiation	- Coach students as needed to find the answers by reviewing what you have done with them in the last couple classes.	*Throughout Activity*
Learning Activity #3	**Slide 8:** Use Rounding to Closer Number and Number Line to Solve World Problem: - The below chart is the chart for presale tickets for The Hunger Games: Mockingjay-Part 1 in Edmonton, Calgary, and Lethbridge. About how many tickets have already been sold? Calgary: 350 Edmonton: 401 Lethbridge: 220 - Allow students to do on own on whiteboards then go through all together on board. **Slide 9:** One answer for each calculation is correct. Estimate to identify the correct answer: - 2367 + 2710= 5077 or 6077 - 2986 + 145 + 3978 = 6109 or 7109 - Allow students to work out on own, then ask how they solved it and do variations up on board. **Slide 10:** Use Place Value Chart to Estimate the Answer: - Molly and her father wanted to win the contest for most Christmas lights on their house in their neighbourhood. Last years record was 2500 lights on one house. Have Molly and her Father exceeded last years record? Green Lights: 735 Red Lights: 867 White Lights: 434 Icicle Lights: 328 - Allow students to do on own, and then go through all together.	*15 min.*
Closure		**Time**
Consolidation of Learning:	Ask students why we estimate? - Allow a few students to share.	*1 min.*
Feedback From Students:	Ask students what strategy they like best? - Name all of them (Base ten blocks, place value, number line, rounding to the closer number, mental math) and get them to raise their hands for which they prefer.	*1 min.*

Sponge Activity/Activities	- Do more questions on page 72. - Help others at Table.

Lesson Title/Focus	**Estimating Sums Strategies**	**Date**	November 24th, 2014
Subject/Grade Level	Math/Grade 4	**Time Duration**	30 min.
Unit	Chapter 3, Addition and Subtraction	**Teacher**	Taylor Fornwald

OUTCOMES FROM ALBERTA PROGRAM OF STUDIES	
General Learning Outcomes:	Develop Number Sense
Specific Learning Outcomes:	**Demonstrate an understanding of addition of numbers with answers to 10 000 and their corresponding subtractions by:** - Estimating sums and differences

LEARNING OBJECTIVES

Students will:

7. Develop understanding of estimating sums strategies.
8. Consolidate estimating sums strategies.

ASSESSMENTS	
Observations:	• Are students grasping different strategies?
Key Questions:	• **Which strategy did you use to estimate the problem?** • **How can you decide whether to estimate or calculate to solve a problem?** • **How can you add 3-digit an 4-digit numbers?**
Products/Performances:	• **Take in Math scribbler and look over where each students is at.**

LEARNING RESOURCES CONSULTED	**MATERIALS AND EQUIPMENT**
• Alberta Program of Study	• **Students need "Estimating Sums" Worksheet and Math Scribbler** • **"Estimating Sums #4" Smart Board Lesson** • **Thousand, Hundreds, Tens, and Ones Manipulatives for each table** • **Three Whiteboards, marker, and eraser**

PROCEDURE

Advance Organizer/Agenda	**Slide One:** **-** Will be going over the answers for assignment from last day so everyone will need their math scribblers. - Review what a proper transition is. - Tell students they must move in slow motion to get everything. - Set timer for 2 minutes to get supplies.	3 min.
Body		**Time**
Learning Activity #1	**Slide 2:** Use Rounding to Closer Number and Number Line to Solve World Problem: - The below chart is the chart for presale tickets for The Hunger Games: Mockingjay-Part 1 in Edmonton, Calgary, and Lethbridge. About how many tickets have already been sold? Calgary: 350 Edmonton: 401 Lethbridge: 220 - Use students to show real life timeline, students jumping to next number on the number line and having students hold	*20 min.*

	white board above head with number they are representing. - Bring down blinder to show what the timeline would look like and write a sentence together to complete the question. **Slide 3:** Use Place Value Chart to Estimate the Answer: - Molly and her father wanted to win the contest for most Christmas lights on their house in their neighbourhood. Last years record was 2500 lights on one house. Have Molly and her Father exceeded last years record? Green Lights: 735 Red Lights: 867 White Lights: 434 Icicle Lights: 328 - Allow students to use manipulative on each table to figure out answer. - Bring down blinder to show what place value chart should look like and explain answer and write sentence as needed. **Slide 4:** One answer for each calculation is correct. Estimate to identify the correct answer: - 2367 + 2710= 5077 or 6077 - 2986 + 145 + 3978 = 6109 or 7109 - Go through rounding to the nearest thousand to figure our answer. **Slide 5:** **-** Use Rounding to the Closer Number to estimate the below problem: Miss Fornwald made 200 brownies. She needs 145 brownies for a bake sale and needs 48 brownies for her Grade Four class. Did she make enough brownies? - Explain question and then go through answer all together on board. **Slide 6:** Estimate each sum. Show your work. a) 249 + 199 is about b) 96 + 402 is about c) 208 + 297 is about Go through answers on board. **Slide 7:** - Jade wants to collect 8000 pennies, or $80 to donate to her church for Christmas. She has a jar with 1048 pennies, a jar with 2083 pennies, and a jar with 3922 pennies. Does Jade have enough pennies? How do you know? - Act out number line again with students. - Bring blinder down and show what number line would look like.	
Teacher Notes: Assessments/ Differentiation	- Tell students to add to answers as needed.	*Throughout Activity*
Closure		**Time**
Consolidation of Learning:	Ask students why we estimate? - Allow a few students to share.	*1 min.*
Feedback From Students:	Ask students what strategy they like best? - Name all of them (Base ten blocks, place value, number line, rounding to the closer number, mental math) and get them to	*1 min.*

	raise their hands for which they prefer.	
Feedback To Students	- Hand in Math scribblers to see where students are at with understanding the strategies and make list of those that look like are struggling.	

Estimating Sums

Show all your work in your scribbler and write answer in sentence for word problems.

1) Use the Number Line Strategy to estimate the below problem:

City	Number Tickets Sold
Calgary	350
Edmonton	401
Lethbridge	220

The chart shows the presale tickets for The Hunger Games: Mockingjay-Part 1 in Edmonton, Calgary, and Lethbridge. About how many tickets have already been sold?

2) Use Place Value Chart to estimate the below problem:
Molly and her father want to beat last year's record for most Christmas lights on their house in their neighbourhood. Last year's record was 2500 lights on one house. Have Molly and her Father exceeded last year's record?
Green Lights: 735
Red Lights: 867
White Lights: 434
Icicle Lights: 328

3) One answer for each calculation is correct. Estimate to identify the correct answer:

a) 2367 + 2710= 5077 or 6077
b) 2986 + 145 + 3978 = 6109 or 7109

4) Use Rounding to the Closer Number to estimate the below problem:
Miss Fornwald made 200 brownies. She needs 145 brownies for a bake sale and needs 48 brownies for her Grade Four class. Did she make enough brownies?

5) Estimate each sum. Show your work.

d) 249 + 199 is about
e) 96 + 402 is about

f) 208 + 297 is about

6) Use a strategy of your choice to estimate the sum to the below problem:

Jade wants to collect 8000 pennies, or $80 to donate to her church for Christmas. She has a jar with 1048 pennies, a jar with 2083 pennies, and a jar with 3922 pennies. Does Jade have enough pennies? How do you know?

Lesson Title/Focus	**Estimating Differences**	**Date**	November 26th, 2014
Subject/Grade Level	Math/Grade 4	**Time Duration**	1 hour
Unit	Chapter 3, Addition and Subtraction	**Teacher**	Taylor Fornwald

OUTCOMES FROM ALBERTA PROGRAM OF STUDIES	
General Learning Outcomes:	Develop Number Sense
Specific Learning Outcomes:	**Demonstrate an understanding of addition of numbers with answers to 10 000 and their corresponding subtractions by:** - Estimating sums and differences

LEARNING OBJECTIVES

Students will:

9. Develop understanding of estimating differences strategies.
10. Practice estimating sums strategies.

LEARNING RESOURCES CONSULTED	**MATERIALS AND EQUIPMENT**
• Alberta Program of Study	• **Station One & Four: Manipulatives** • **Station Two: Three Whiteboards, marker, and eraser.** • **Station Three & Six: One Whiteboard, marker, and eraser.** • **Estimating Differences Worksheet one per table**

PROCEDURE

	Body	Time
Learning Activity #1	**Estimating Differences:** - Go over what the main points to remember for each strategy are Place Value: How many blocks can be in each section? What you do when you have too many? Number Line: What number are you placing first on your number line? How will show moving to the next number line? Not showing where the exact number is placed. Rounding: Are you rounding to the nearest tens, hundreds, or thousands? How big the number has to be to round up? - Explain that these strategies properties stay the same but today you will be working on Estimating the Difference rather than the sum. - Also remind a word problem you must read careful to know what it is asking, figure out the number you need to use, and write a sentence at end answering what you were asked. - Hand out worksheet, one per table and ask them to designate who the recorder of the answers will be. - Each table starts at the Section numbered the same as their Tribe number.. - Set timer allowing 5 minutes at each Station and then move on to next.	*30 min.*
Teacher Notes: Assessments/ Differentiation	- Wander room assisting when needed. - Assure students it is okay if they do not finish a station when it is time to move on.	*Throughout Activity*
Learning Activity #2	- Review all the answers allowing groups to share how they got their answers. - They can give themselves a check mark if got right. - Take in worksheets at end of class.	*15 min.*

Group's Names:_____

Estimating Differences Challenge!

Write your answer for each question.

Station #1: Place Value

The Yates Theatre has 540 seats. If there are 312 adult tickets and 172 student tickets sold for Wednesday night of the St. Patricks School's Christmas Concert, about how many are left?

Station #2: Number Line

a) 451-320 is about

b) 701 – 445 is about

Station #3: Rounding to Closer Number

The total population of Lethbridge is 89 074. If 45 321 of the population are adults, about how many children make up the population of Lethbridge?

Station #4: Place Value

a) 745 – 389 is about

b) 990 – 623 is about

Station #5: Number Line

The Christmas Tree has 320 lights on it. If 89 burnt out, about how many Christmas lights would still be working?

Station #6: Rounding to Closer Number

a) 562 -401 is about

b) 3832 – 1211 is about

Lesson Title	**Estimating Review**	**Date**	November 27th, 2014
Subject/Grade	Math/Grade 4	**Time Duration**	1 hour
Unit	Chapter 3, Addition and Subtraction	**Teacher**	Taylor Fornwald

OUTCOMES FROM ALBERTA PROGRAM OF STUDIES	
General Learning Outcomes:	Develop Number Sense
Specific Learning Outcomes:	**Demonstrate an understanding of addition of numbers with answers to 10 000 and their corresponding subtractions by:** - Estimating sums and differences

LEARNING OBJECTIVES

Students will:

11. Develop understanding of estimating differences strategies.
12. Practice estimating sums strategies.

LEARNING RESOURCES CONSULTED	**MATERIALS AND EQUIPMENT**
• Alberta Program of Study	• **Traffic Light Assessment Sheet, One per student** • **Students need pencil crayons: green, yellow, red** • **Estimating Review, One per. group** • **Station One & Four: Manipulatives** • **Station Two & Five: 3 Whiteboards, marker, and eraser.** • **Station Three & Six: One Whiteboard, marker, and eraser.**

PROCEDURE

	Body	Time
Learning Activity #1	**Estimating Review Stations:** **-** Explain to students that they will be working similar to yesterday in stations around the room to do a review on Estimating Sums and Differences. - Break students into groups, and send to starting station. - Handout the Team Roles of Active Listener, Encourager, Recorder, and Checker and tell teams they need to pick a person for each role. Also explain that they will switch roles once throughout the stations. (After the third session). - Once chosen roles give recorder the Review sheet and allow students to work through stations, allowing 5 minutes at each.	*30 min.*
Teacher Notes: Assessments/ Differentiation	- Wander room assisting when needed. - Assure students it is okay if they do not finish a station when it is time to move on.	*Throughout Activity*
Learning Activity #2	- Allow students to do Bonus Question working as a group using whatever strategy they want. - Tell students all the answers getting groups to mark their work. - Ask students if there is any last questions, about any of the strategies and are still very confused by.	*10 min.*
Feedback from Students	**Traffic Light Assessment:** **-** Give each student one of the Traffic Light Estimating Progress Report sheets to assess themselves on each strategy learnt. - Explain that they can put a coloured dot of green, yellow, or red after each strategy. - Green stands for "I can do this!", Yellow stands for "I'm Getting There!", and Red stands for "I need help!". Write on board. - Give each student a few moments to fill out and hand in. - Explain that you will hand them back tomorrow with what I rated them based on their Quiz from Tuesday. - They then can take this home and use it as way to know what to work on for a Test on Monday on both Estimating Sums and Diff.	*5 min.*

Estimating Progress Report

Name:_____

Place Value:

Rounding:

Number Line:

Estimating Progress Report

Name:_____

Place Value:

Rounding:

Number Line:

Estimating Progress Report

Name:_____

Place Value:

Rounding:

Number Line:

Estimating Progress Report

Name:_____

Place Value:

Rounding:

Number Line:

Estimating Progress Report

Name:_____

Place Value:

Rounding:

Number Line:

Estimating Progress Report

Name:_____

Place Value:

Rounding:

Number Line:

Group's Names:_____

Estimating Review

Write your answer for each question.

Station #1: Place Value

There was a crazy three day snow storm in Lethbridge. On the first day it snowed 94 cm., the second day 38cm. and on the third day 108 cm. About how much snow did Lethbridge get?

Station #2: Number Line

c) 1230 + 890 is about

d) 761 - 145 is about

Station #3: Rounding to Closer Number

It is 813 km. to Miss Fornwald's hometown of Lampman from Lethbridge. If she travels 169 km. to Medicine Hat and takes a break and then travels 465 km. to Regina and takes another break, about how much farther does she have until she makes it home?

Station #4: Place Value

c) 1077 – 743 is about

d) 990 + 623 is about

Station #5: Number Line

The High Level Bridge in Lethbridge is 5 327 ft. long. The other High Level Bridge near Monarch is about 1 890 ft. long. About how much longer is the Lethbridge High Level Bridge?

Station #6: Rounding to Closer Number

c) 3200 – 1690 is about

d) 7644 + 9237 is about

Bonus Question: Strategy of Group's Choice

Ryan's Mom bought Two Guys pizza for his birthday party. The Pepperoni pizza cost $25.60, the Hawaiian pizza cost $27.32 and the Meat Lovers pizza $32.75. About how much did Ryan's mom spend on pizza?

Lesson Title/Focus	**Estimating Test**	**Date**	December 3rd, 2014
Subject/Grade Level	Math/Grade 4	**Time Duration**	1 hour
Unit	Chapter 3, Addition and Subtraction	**Teacher**	Taylor Fornwald

OUTCOMES FROM ALBERTA PROGRAM OF STUDIES	
General Learning Outcomes:	Develop Number Sense
Specific Learning Outcomes:	**Demonstrate an understanding of addition of numbers with answers to 10 000 and their corresponding subtractions by:** - Estimating sums and differences

LEARNING OBJECTIVES

Students will:

13. Demonstrate understanding of estimating sums and differences.

1) Ask students to clear off tables, set themselves in testing position, and get out pencil and eraser. As they are doing this hand out test face down.

2) Go through test with kids emphasizing that they must read the instructions before each question and must show all work, as I will be giving them a mark for both the work they show and their answer. Also emphasize on Word problems to read carefully and sentence should answer what I asked as they will be given a mark just for their sentence as well.

3) Allow them to begin, circulating and helping as needed. Have whiteboards handy to give to students struggling and extra paper for those who need more room.

4) Once they have finished they may just read. Write time it took to write on each test.

*** Test is below**

Reflections from the lesson	

Name: _____ Date: _____

Estimating Sums and Differences

1) Estimate each answer by rounding. Show your work.

a) 789 - 621 is about

b) 1023 + 452 is about

c) 921 – 345 is about

c) 3245 + 645 is about

2) Use Place Value Strategy to estimate. Show your Work.

Santa had a total of 7 526 presents for the town of Coaldale. He dropped off 2 990 to one part of town and then 872 presents to another part of town. About how many presents does he still have left to drop off in Coaldale?

Thousands	Hundreds	Tens	Ones

3) Use the Number Line Strategy to estimate. Show you work.

Kate caught 1023 snowflakes in her palm. After five seconds 478 snowflakes had already melted. About how many snowflakes does Kate have left in her hand?

4) Use Strategy of choice to estimate. Show your work.

a) 4021 – 2899 is about

b) 7890 + 390 is about

5) Use strategy of choice to estimate. Show your work.

The University of Lethbridge is presenting The Nutcracker Ballet next week. They have sold 254 adult tickets and 393 student tickets. If the theatre has 800 seats about how many tickets are left?

6) Use strategy of choice to estimate. Show your work.

"Every time a bell rings an angel gets its wings". In September 534 bells rang around the world, in October 672 bells rang and in November 864 bells rang. About how many angels received their wings in the three few months?