

<b>1. Lesson Plan Information</b>	
<b>Subject/Course:</b> BTX E Information Technology in Business Software Applications and Information Management	<b>Name:</b> Adapted from Carrie Lynn Allgeier
<b>Grade Level:</b> 12	<b>Date:</b> Thursday, April 16 <sup>th</sup>
<b>Topic:</b> Microsoft Excel	<b>Time and Length of Period:</b> 9:15 -10:30 (Period D= 75 min.) 10:30-11:45 (Period E = 75 min.)

<b>2. Expectation(s) and Learning Skills</b>
<p><b>The students will:</b></p> <ul style="list-style-type: none"> <li>Describe the business documents required for particular task (i.e., business report, a flowchart, tables, and graphs)</li> <li>Demonstrate how to produce customized business documents (i.e., formatted and integrated documents, graphics, graphs, reports)</li> <li>Learning skill: develop positive interdependence in group</li> </ul> <p><b>Today, students will:</b> consolidate and apply navigation skills with Excel to complete specific management tasks in a game format.</p>

<b>3. Pre-assessment</b>
<p><b>A. (i) Students</b></p> <ul style="list-style-type: none"> <li>Students have some background knowledge of Microsoft Excel from grade 9 BTT</li> </ul> <p><b>(ii) Differentiation of content, process, and/or product (may be accommodations and/or modifications)</b></p> <ul style="list-style-type: none"> <li>Period D – Student MD has an IEP – I will assist this individual in answering any questions on the Microsoft Excel jobs.</li> <li>Period E – Students BJ (Asperger’s Syndrome), JT, and TM have IEP’s – I will assist these individuals in answering any questions on the Microsoft Excel jobs.</li> </ul>
<p><b>B. Learning Environment</b></p> <ul style="list-style-type: none"> <li>Agenda will be utilized to direct students through the day’s work</li> <li>Students are working independently on their computer</li> <li>Period D &amp; E classroom arrangement – 5 rows of computers vertically and 1 row of computers horizontally at the back of the room. A total of 26 computers is located in this computer lab.</li> </ul>

### **C. Resources/Materials**

- Computers
- Printer
- White Board Makers
- Excel Jobs (1-6 & Absolute Cell Referencing Job)
- Microsoft Excel
- Mouse Race Board (created by Alicia Lloyd and David Wigney)
- Mouse Race Activity Sheets (Lap 300, 200, 100)
- Mouse Race Pieces

### **4. Content ( The What)**

1. Use of Microsoft Excel Terminology (Absolute Cell Referencing, Relative Cell Referencing, Accounting Style, Currency Style)
2. Understanding of Excel Features (Adding additional worksheets, Changing Column/Row Width, Wrap Text, the first three things we did when we entered into Microsoft Excel)
3. Knowledge of Excel Formulae (Writing Formulae Correctly, Average, Minimum, Maximum, AutoSum, Count)
4. Identification of Excel Short Cuts (F4 – Absolute Cell Referencing, Ctrl ~ [Showing Formulae], Short Cuts used when creating formulae)

### **5. Teaching/Learning Strategies ( The How)**

#### **Teacher Role**

#### **(i) Introduction of the Activity, Routines and Procedures**

Take attendance & house keeping items (2 Minutes)

#### **Activity 1 (2 Minutes)**

- Introduce the Mouse Race Game. Today we are going to have some fun by using a game to see which team is actually the fastest in using the Excel skills and understandings we have developed in the last few lessons.

#### **Activity 2 (40 Minutes)**

- Place Mouse Race – Groups on Overhead
- Inform students to get into their groups
- Students will assign a captain for their group
- The captain will bring up the Lap Sheet when their group is finished
- If the group passes their Lap, the captain will move their mouse to the next selection on the game board
- If the group passes their Lap, then they will receive the next Lap (laps decrease)
- If the group does not pass their Lap, they will be given the sheet back and are instructed to fix the questions that are wrong.
- Each group can only use one Computer – so assign one member to do the typing. The third member is the support chain – this is where the member assists the group in increasing their position on the race track and keeping everyone on task.
- Prizes will be rewarded to the group that goes to victory lane (first done).
- Students played the Mouse Race Game

**Activity 3 (31 Minutes)**

- Students are given the remainder of the period to work on their Excel Tasks 1-6 & Absolute Cell Referencing Task

**(ii) Lesson Conclusion**

(3 Minutes)

At the conclusion of the Mouse Race Game, each team will be asked to share what they learned about business documents and how they are customized using Microsoft Excel.

**6. Assessment (Collection of Data) / Evaluation (Interpretation of Data)****Assessment**

- Mouse Race Game – the captain of each group will bring up their Lap sheet and get it marked for correct answers. If questions are marked incorrectly, they will be able to take the Lap sheet back to their group and fix their answers. This will indicate the team's ability to produce customized business documents.
- Formative Assessment –will be used to gauge the students' knowledge of Microsoft Excel. Notes will be taken on each student's knowledge / behaviour in class.
- The students' submitted jobs will be marked out of 5 marks. A mark will be taken off for each mistake.

**Evaluation**

- Checklist will be used to record group laps and final scores.

**7. Student Teacher's Reflections on the Lesson****A. (i) Evidence of Student Learning Related to the Lesson Expectation(s)**

The Mouse Race Game was designed to consolidate and apply key Microsoft Excel concepts that the students have learned so far in the Excel Unit. This concept worked very well and all groups got along really well.

Period D – Student MD - Checked on progress within group regularly; managed tasks very well and contributed to group goal

Period E – Students BJ (Asperger's Syndrome), JT, and TM have IEP's – group support allowed students to answer all questions fully.

Before the class started to play the game, I separated them into groups of three or four depending on the class size. These groups will be designed to group students in a way that supports each other (heterogeneous groupings). After each group was settled around one computer, I explained the Mouse Race to the class, since they have never played before. All students were interested and helped their group come to victory lane. Each group had to nominate a captain, but before that I explained the role that the captain would have in the Mouse Race. The captain was in charge of bringing up their group's Lap sheet, when they were completed. If they had all their answers correct, they were given the next Lap sheet and were instructed to move their mouse to the next Lap.

**(ii) Next Steps for Student Learning Related to Lesson Expectation(s)**

Students now have an independent Excel assignment to complete individually to support skill development.

Tomorrow's lesson will consist of:

- IF Functions
- Excel tasks 7 & 8
- Hand in Excel Jobs 1-6 & Absolute Cell Referencing Job

**B. (i) Evidence of the Effectiveness of the Student Teacher**

**Period D & E**

The Mouse Race was a great game to play because it reviewed the Excel concepts that we have learned so far in the Excel unit. All students worked together in their group and tried to bring their mouse to victory lane. Since I had made this game up, I was not sure how the game would go. All in all, I was very happy to see the groups working together and answering the questions. I designed the groups so that I would have a student working at Level 4 in every group and this worked out really well. I would definitely use this game over again, be it BTA or BTT.

**(ii) Next Steps Related to the Effectiveness of the Student Teacher**

**Period D & E**

There is nothing that I would change in this lesson. The game went well and all students learned / reviewed the Excel concepts that have been taught so far in the unit. They are now ready to review other aspects of the Excel program then tackle an independent application with Excel.

**The Mouse Race – Lap 300**

1. What are the two short cuts that we have learned so far? (Formulas & absolute cell reference)
2. List the steps you would use to add a new spreadsheet (Sheet # 4).
3. How do you change the width of the column to a specific width, without clicking the column and dragging?
4. Explain the process of Wrap Text for cells A1, B1, and D1.
5. When entering into Microsoft Excel, list the first three things we do (Hint: You have to bring something down).

## The Mouse Race – Lap 200

1. Calculate the total for every other number listed in Column A. Also write the formula that you used to calculate this total.

	A
1	768
2	2874
3	1902
4	18672
5	182065
6	72846
7	279490
8	189420
9	384920

2. What is the difference between relative cell reference and absolute cell reference? (Use Microsoft Excel Help)

3. Write the following formulae and their answers?

- Average
- Minimum
- AutoSum
- Maximum
- Count

	A
1	80
2	45
3	75
4	60
5	78
6	67

4. What is the difference between Accounting Style and Currency Style?

## The Mouse Race – Lap 100

1. Recreate the following spreadsheet and chart. Once you are finished, send your Captain up and I will come and look at your chart and spreadsheet on the screen.



### Kitchener-Waterloo Area Job Fair Attendance by Location



	2000	2001	2002	2003	2004	2005	Total
<b>North Kitchener</b>	26 280	18 099	23 849	25 385	24 836	23 621	
<b>South Kitchener</b>	7 253	8 867	6 482	7 632	7 972	8 532	
<b>North Waterloo</b>	25 350	20 490	21 969	19 096	22 847	25 643	
<b>South Waterloo</b>	26 382	25 947	18 987	19 584	22 579	23 412	
<b>Cambridge</b>	19 299	20 483	18 563	17 007	21 764	20 642	
<b>Elmira</b>	738	630	548	436	664	764	
<b>Galt Region</b>	7 265	9 392	6 430	7 009	6 006	6 902	
<b>Hespler Region</b>	6 253	8 493	6 854	8 721	6 523	6 290	