

Page 3

*Write any verbal instructions and/or questions on the board to help students remember!*

**ENGAGING INTRODUCTION**

Students will be initially drawn to this LES using the engaging activity presented below.

The topic of this ILES, *My Neighbourhood, My Choices*, is intrinsically interesting to students because it deals with their world and with their environment. The title of this ILES implies that student choices can impact their neighbourhood, and they will develkop an understanding of this throughout the lessons to follow.

Students of any background have all experienced their school. This very fact puts all students on the same level, with the same knowledge. Many will know what the neighbourhood near their school looks like. Others will not. Yet all students have experienced their school and will be interested in how it fits into the larger community around it. This comes from the natural desire to situate oneself in the world. Thus this activity engages students by being relevant to the lives of students and important in their fabrication of identity.

The initial activity will help to engage students by getting them all thinking about what lies beyond the walls of the school. This activity will help students reconsider their prior knowledge of the community, working in groups to take advantage of communal knowledge, and expressing their ideas to the class. After this activity, the problem will be presented to students along with the expectations for the ILES and the criteria for success.

**Activity 1: Thoughts to Maps**

***15 minutes***

The teacher will present students with a problem, making students feel important in their role of helping the teacher:

*I need to go buy milk over the lunch break, but I have forgotten how to get to the depanneur!*

Have all students take out a scrap paper.

*I need you to sketch a map for me to help me find my way there! Can you help me by showing me how far away the store is, where I need to turn, and what landmarks I may pass along the way?*

Write the questions on the board to help students remember.

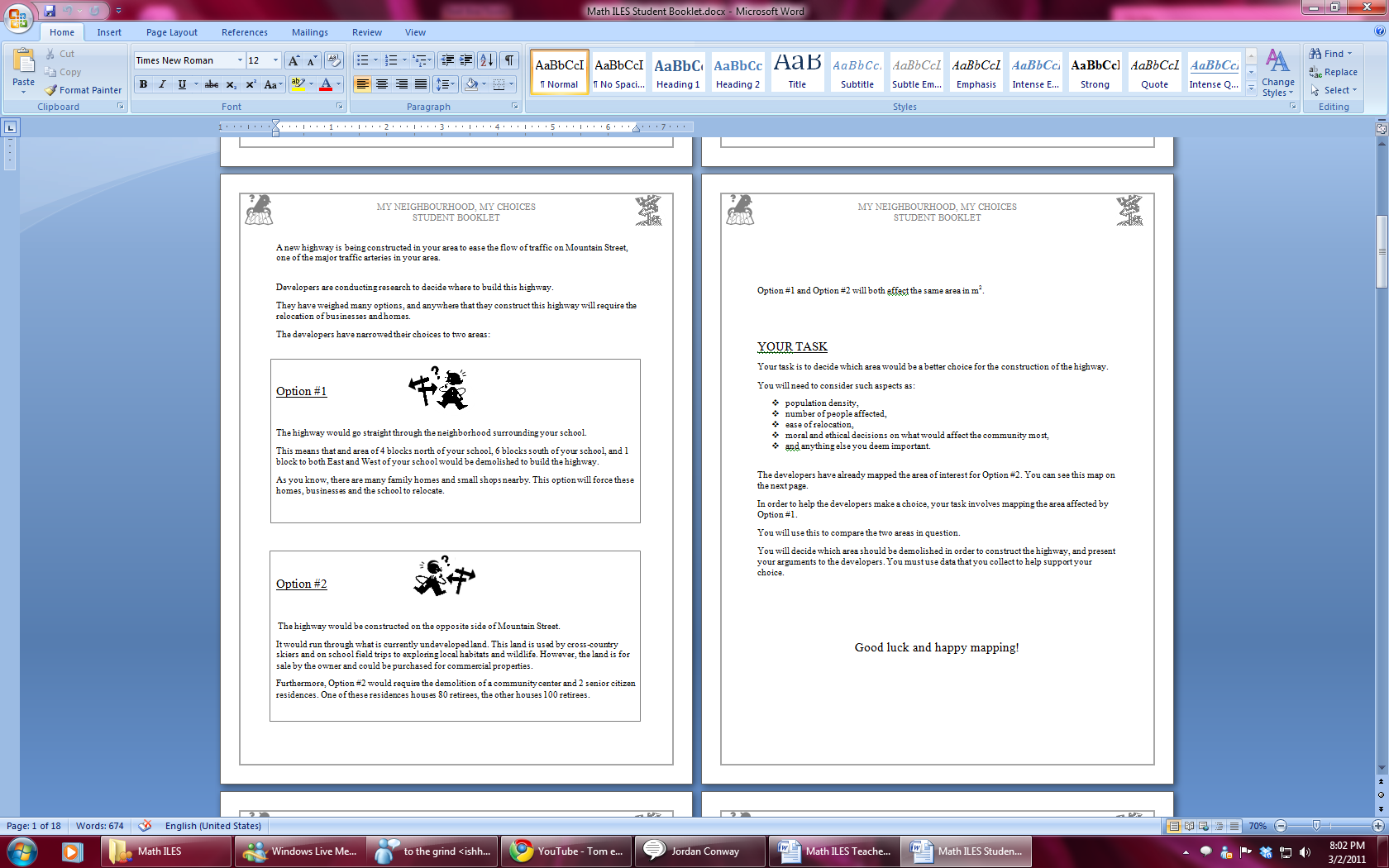
***15 minutes***

Now have students get together in groups of 5.

They are to compare their maps.

Continued🡪

They should note:



Page 4

*Post the sketched maps on the walls of the classroom for the rest of the ILES, so that students can see how their perceptions of maps will change throughout the ILES.*

What is different?

What is the same?

How detailed are the maps?

How precise/accurate?  
Would these maps be enough to show someone who was not from the neighbourhood the way to the store?

Collect student maps to put up on the walls after class, for the duration of the ILES.

***20 minutes***

Distribute the student booklets and have students write their name and the date.

Read the problem with the students. It can be read by students or by the teacher, depending on how strong the readers in the class are.

Present the plan:

This ILES will span BLANK classes.

Students are not expected to do any of the work outside of class, and they will leave their student booklet with the teacher.

Students will work both on their own and in groups—the same ones they were in for Activity 1—throughout the course of the ILES. In the ends, they will receive an individual grade.

Students will have to outline problems and decide how they are going to solve these problems.

Each activity will begin with a short lesson to get students on the right track, and then they will continue the activity.

The teacher will be available to answer any questions and to help students with problems, but no answers to the ILES will be given.

Show students the rubric and communicate the expectations and evaluation criteria so that all students understand their task.

Answer any student questions.

Collect the student booklets.

*Have maps on hand, drawn to different scales, to enhance the class discussion.*

**PERFORMANCE**

Given the knowledge of the overall plan for the ILES, the plan for each lesson will be reiterated at the beginning of the lesson.

Each lesson will begin with a brief teacher-led lesson, sharing important skills that will be used during the day’s activity.

During performance part of the ILES, students will be actively working their way through the problems in the student booklet once armed with the tools and knowledge that they need. They will be developing individual skills and competencies in the topics that are central to the ILES by confronting them and working to overcome and master the tasks.

After the initial brief lesson, the teacher leaves students to work through problems on their own. He/she may circulate and prompt students with action questions. Feedback will also come in the form of questions, by asking students if their actions and/or ideas are reasonable and why. If students can explain themselves, they can feel satisfied by their answer. If students cannot explain their thoughts, the questioning feedback serves the purpose of leading to further reflection.

\*\*\***Parents volunteers are required for ACTIVITY 2**\*\*\*

*Request form can be found at the back of the teachers guide.*

**ACTIVITY 2: WHAT’S IN A MAP?**

***10 minutes:***

Distribute the Student Booklets.

Remind students that last class, they attempted to create a detailed, accurate map of a familiar area from memory. Referring to the maps posted on the walls, spend a few moments discussing how all of the maps looked quite different, with different degrees of detail and accuracy.

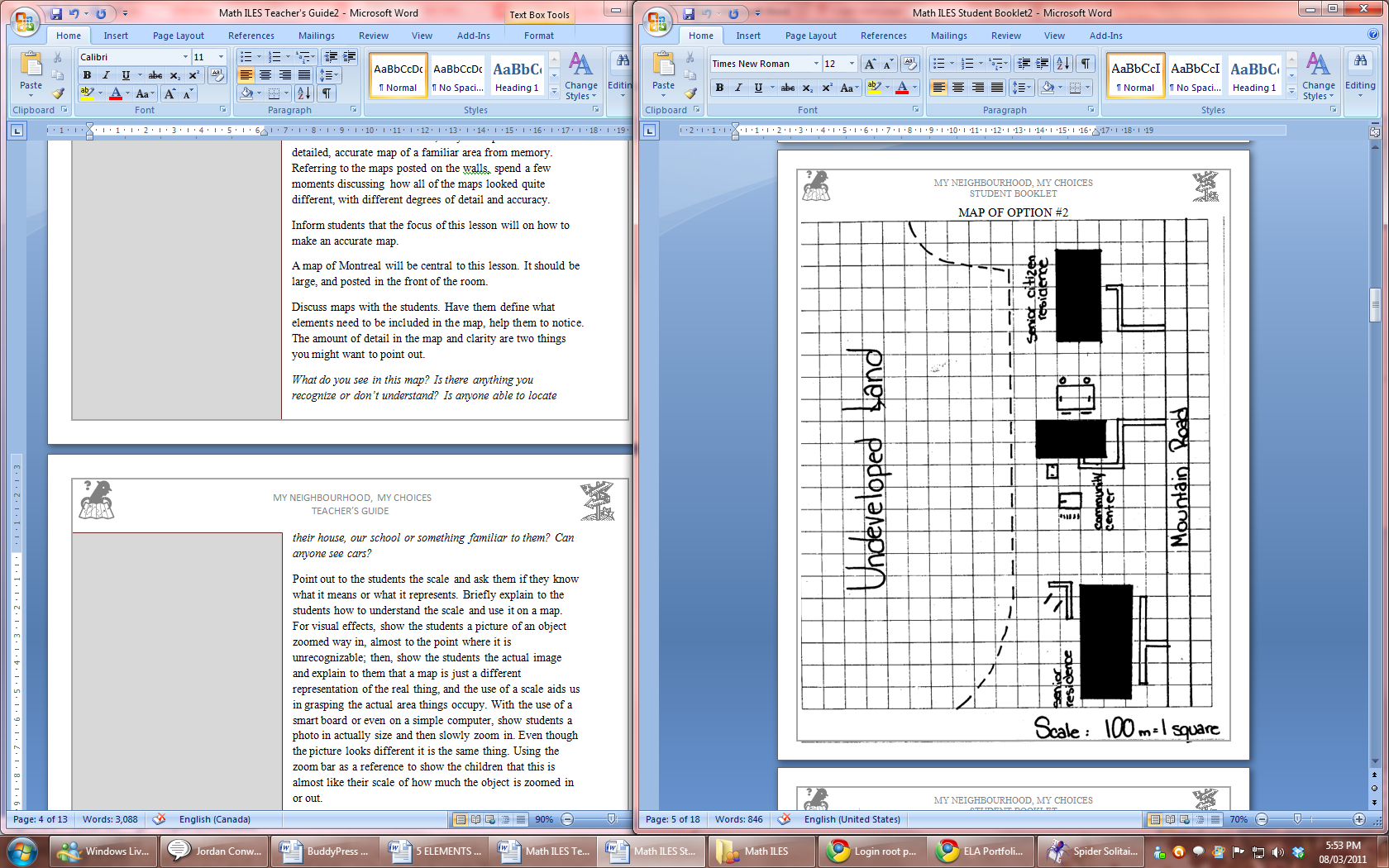
Inform students that the focus of this lesson will on how to make an accurate map.

A map of Montreal will be central to this lesson. It should be large, and posted in the front of the room.

Discuss maps with the students. Have them define what elements need to be included in the map, help them to notice. The amount of detail in the map and clarity are two things you might want to point out.

*What do you see in this map? Is there anything you recognize or don’t understand? Is anyone able to locate their house, our school or something familiar to them? Can anyone see cars?*

Point out to the students the scale and ask them if they know what it means or what it represents. Briefly explain to the students how to understand the scale and use it on a map. For visual effects, show the students a picture of an object zoomed way in, almost to the point where it is unrecognizable; then, show the students the actual image and explain to them that a map is just a different representation of the real thing, and the use of a scale aids us in grasping the actual area things occupy. With the use of a smart board or even on a simple computer, show students a photo in actually size and then slowly zoom in. Even though the picture looks different it is the same thing. Using the zoom bar as a reference to show the children that this is almost like their scale of how much the object is zoomed in or out.

 Page 5

*Draw the math examples on the board! Work through the first example, label the diagram so they can see what’s going on.*

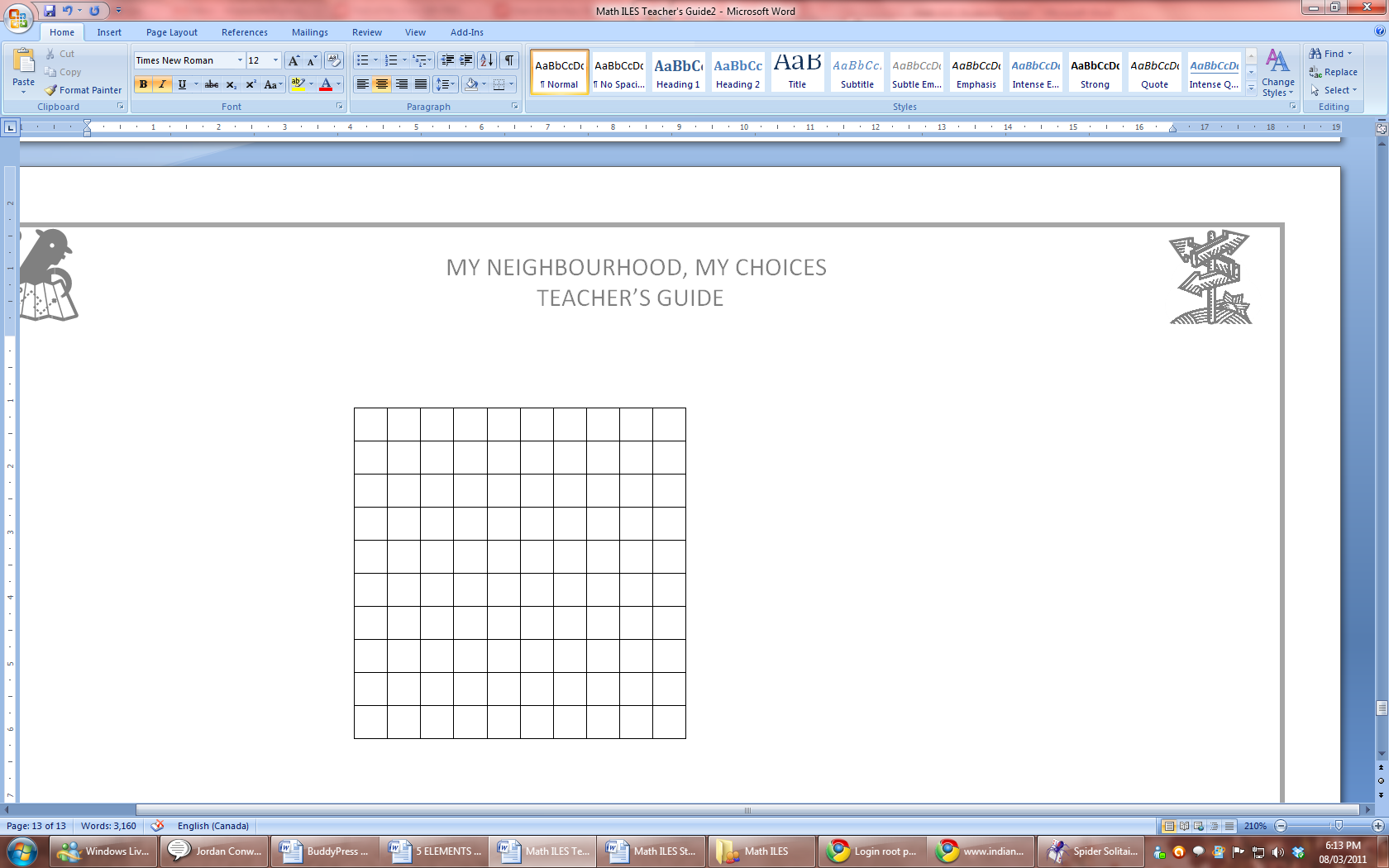
*Don’t give them the independent practice until they seem to grasp the concept. Keep explaining! Let them ask questions, let them explain to partners.*

*Students can refer to page 5 to see a scale that has already been made!*

***15 minutes***

Students will need to calculate scale to complete this activity. Demonstrate a few examples on the board:

*If you have a km2 and you want to map it onto a paper that is 10cm by 10cm, marked at each cm, what is the scale?*

1 km = 1000m = 100 000cm

10cm = 100 000cm  
 10 10

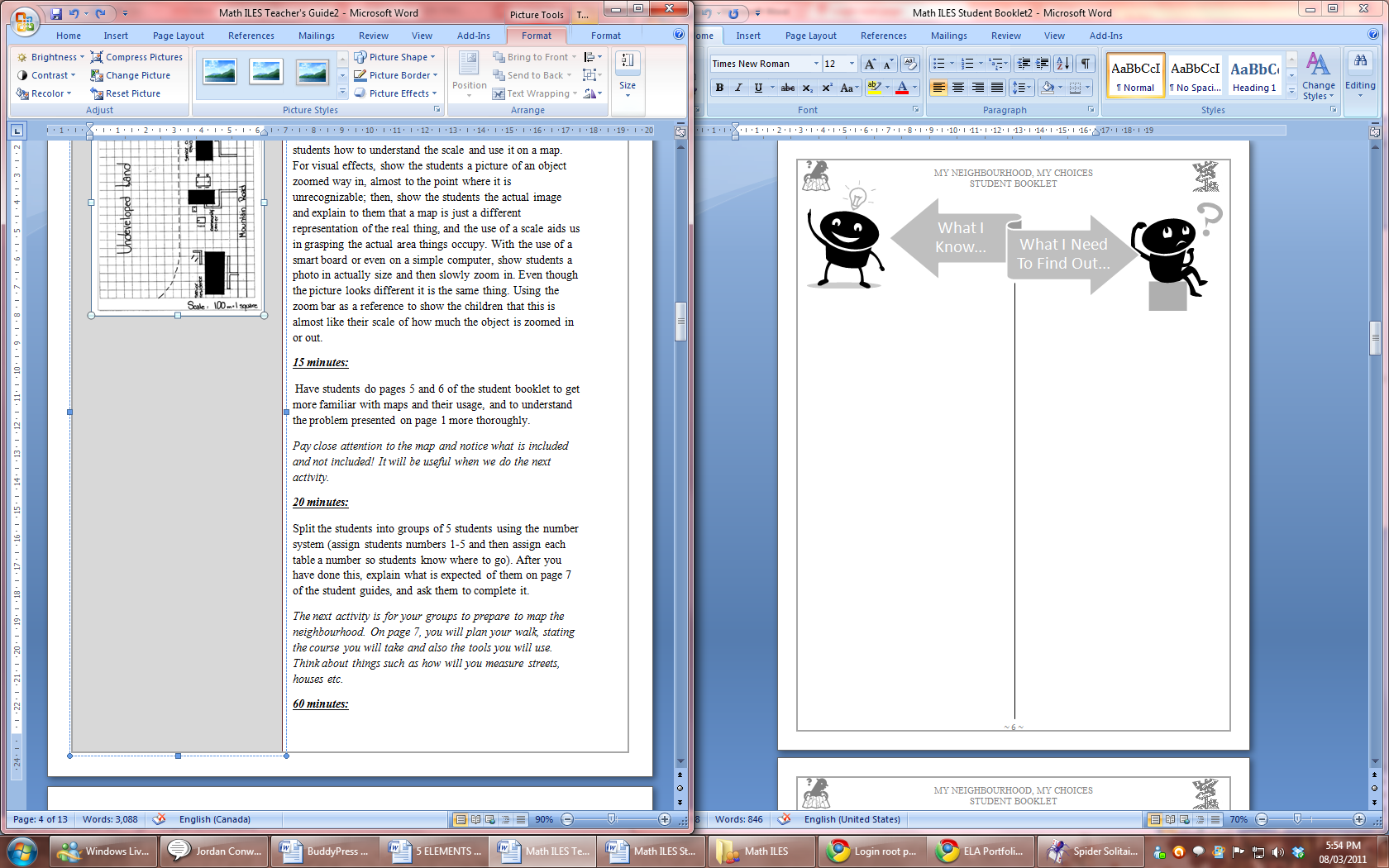
1cm = 10 000cm

Scale is 1:10 000cm or  
 1:100m

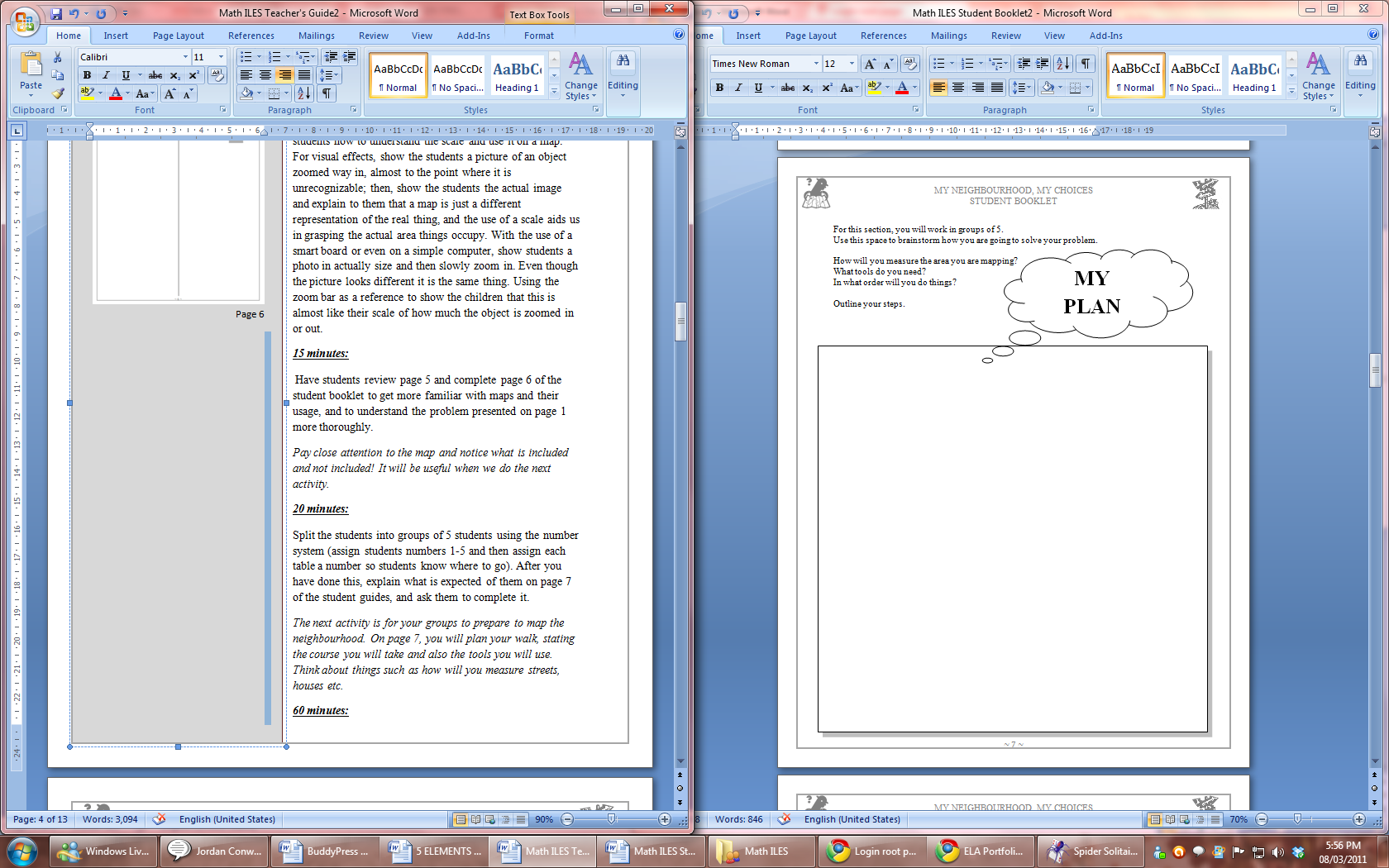
Diagram and explain the process until students understand.  
Give students some examples to write down and try:  
1 km2 onto 5cm2 = 100 000cm = 5cm *Answer:1:20 000cm*  
 5 5

100m2 onto 10cm2 = 10cm = 10 000cm *Answer: 1:1000cm*  
 10 10

***15 minutes:***

 Page 6

*Part 2 requires good weather, and the ILES may need to be put on hold if the weather is too bad. Have students dress for rain, because it is hard to organize parent volunteers!*

 Page 7

*Students need to bring their plan out, so they know what they want to do!*

Have students review page 5 and complete page 6 of the student booklet to get more familiar with maps and their usage, and to understand the problem presented on page 1 more thoroughly.

*Pay close attention to the map and notice what is included and not included! It will be useful when we do the next activity.*

***20 minutes:***

Split the students into groups of 5 students using the number system (assign students numbers 1-5 and then assign each table a number so students know where to go). After you have done this, explain what is expected of them on page 7 of the student guides, and ask them to complete it.

*The next activity is for your groups to prepare to map the neighbourhood. On page 7, you will plan your walk, stating the course you will take and also the tools you will use. Think about things such as how will you measure streets, houses etc.*

**Part 2—Next day**

***60 minutes:***

Next, take the students out in the streets surrounding their school. With the help of the parent volunteers let the groups of students guide their own exploration of the neighbourhood. Reinforce to rules they must follow, stick together, look both ways before crossing the street, not to go on other people’s property – but leave the wandering up to them; having the parent there for safety reasons and school regulations.

*When we go outside, think carefully about what your group will include in the plan so you don’t spend too much time on details you will not need in the end.*

The first copy the students are doing is only the rough copy on page 8, so let them know they don’t need to spend all their time making it perfect when they go outside, they will have plenty of time in class to do their good copy.

**Part 3—Next day**

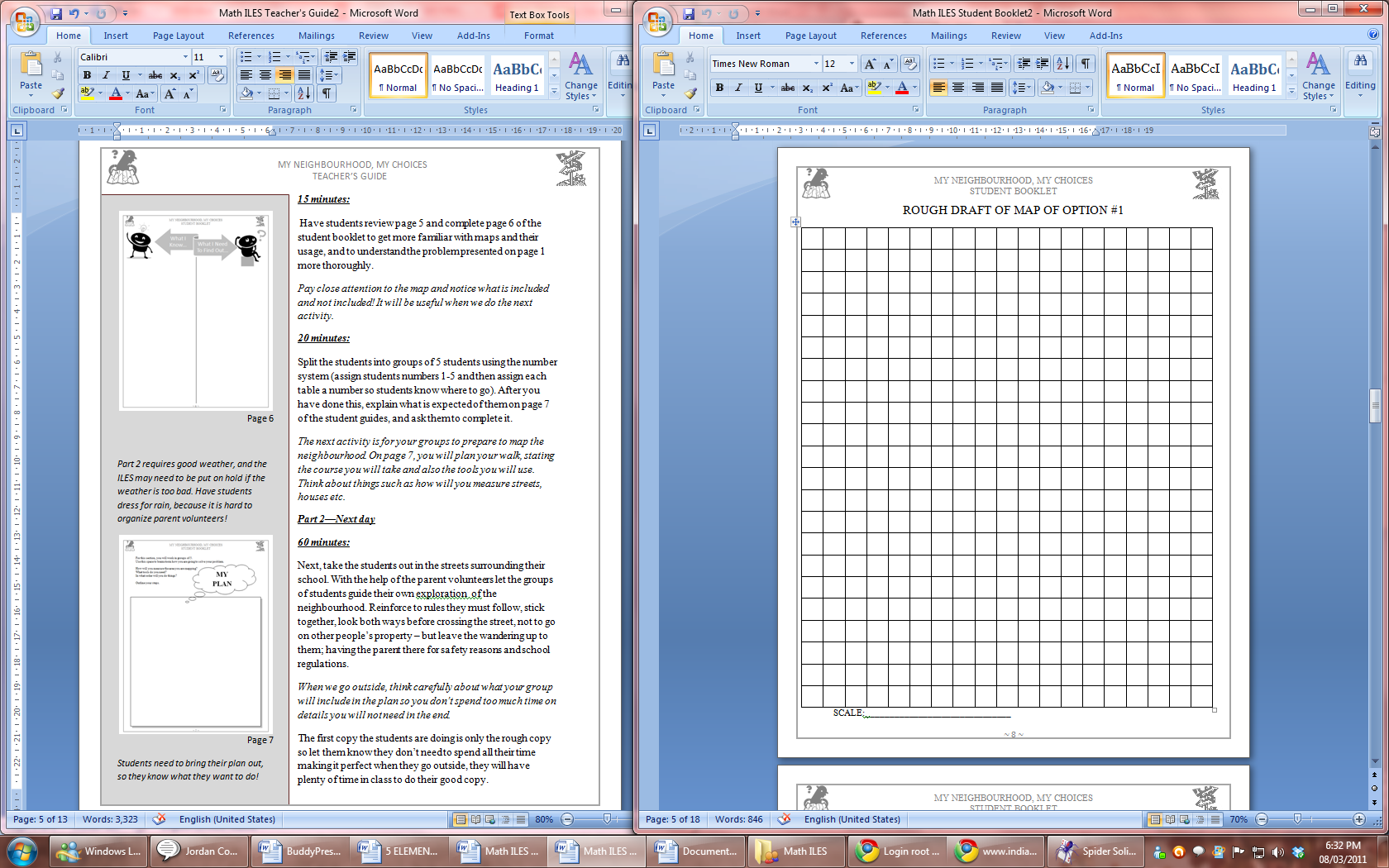
***5 minutes:***

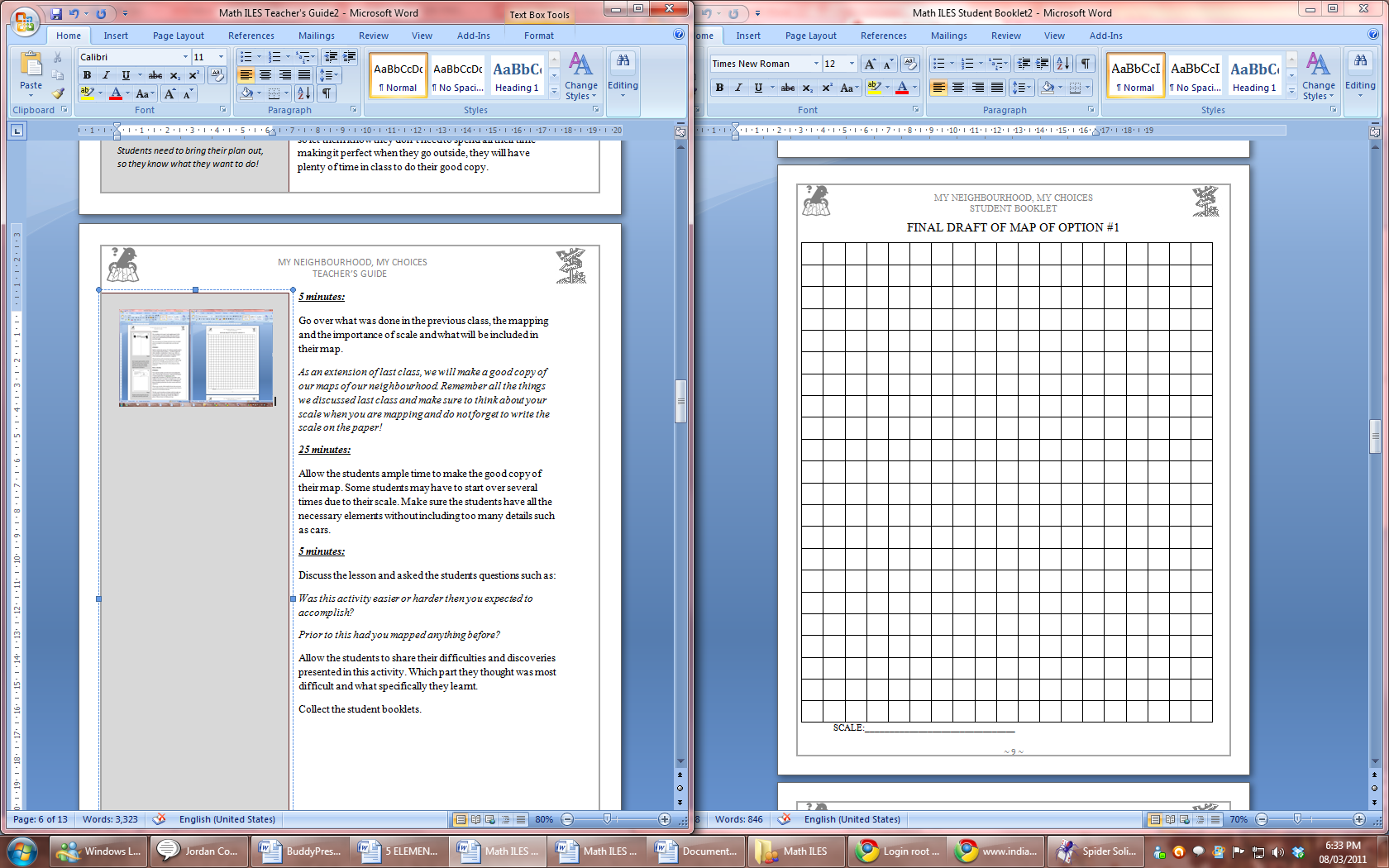
Go over what was done in the previous class, the mapping and the importance of scale and what will be included in their map.

*As an extension of last class, we will make a good copy of our maps of our neighbourhood. Remember all the things we discussed last class and make sure to think about your scale when you are mapping and do not forget to write the scale on the paper!*

***25 minutes:***

Allow the students ample time to make the good copy of their map on page 9. Some students may have to start over several times due to their scale. Make sure the students have all the necessary elements without including too many details such as cars.

Page 8

Page 9

***5 minutes:***

Discuss the lesson and asked the students questions such as:

*Was this activity easier or harder then you expected to accomplish?*

*Prior to this had you mapped anything before?*

Allow the students to share their difficulties and discoveries presented in this activity. Which part they thought was most difficult and what specifically they learnt.

Collect the student booklets.

**ACTIVITY 3: POPULATION DISTRIBUTION AND DEMOGRAPHICS**

***15 minutes***

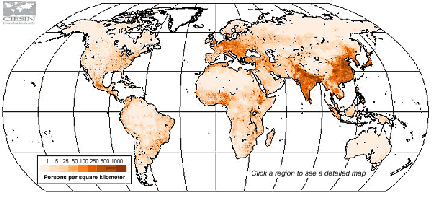
Distribute the Student Booklets.

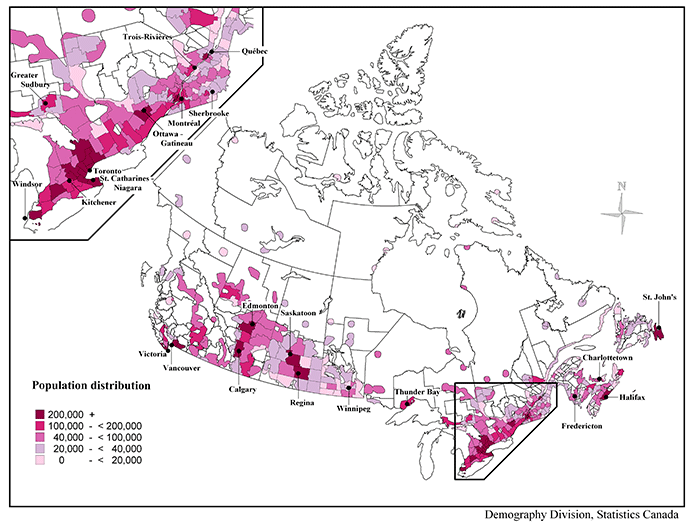
Have students reflect on what they have done so far.

Students should come up with all of the following. If not, point them out:

*We have recognized a problem and outlined what we need to solve this problem.*

*We have thought about maps, and how much detail goes into a map.*





*We have thought of the mapping process.*

*We have read and interpreted a map of one area of our neighbourhood.*

*We have put ourselves into the roles of city developers to map our corner of the neighbourhood. We have thought, in detail, about the mathematical attributes of our maps (scale).*

Write each response on the board, as well any of the important ones that students have not described.

Ask:

*What can we learn about who would be affected by the demolition of the neighbourhood using this map?*

Accept all answers. Discuss why it may be reasonable, or why not.

***25 minutes***

**Ideally, the next part of the lesson will make use of a SMARTboard. However, if one is unavailable, the information can be distributed as handouts. Please refer to the information at the end of the teacher’s guide.**

Introduce the terms *Population Distribution* and *Population Density* by distributing the handout of the same name (p.1-2) or by putting the website from which it was downloaded on a SMARTboard.

(<http://www.geography.learnontheinternet.co.uk/topics/popn1.html#distribution>)

Discuss how these concepts apply to Canada’s geographic regions, using the image found at <http://www.statcan.gc.ca/pub/91-214-x/2007000/4181396-eng.htm>

Or refer to page 3 of the handout.

i.e. most of Canada’s population lives in a few cities close to the Southern border, and few people live in Canada’s northern regions.

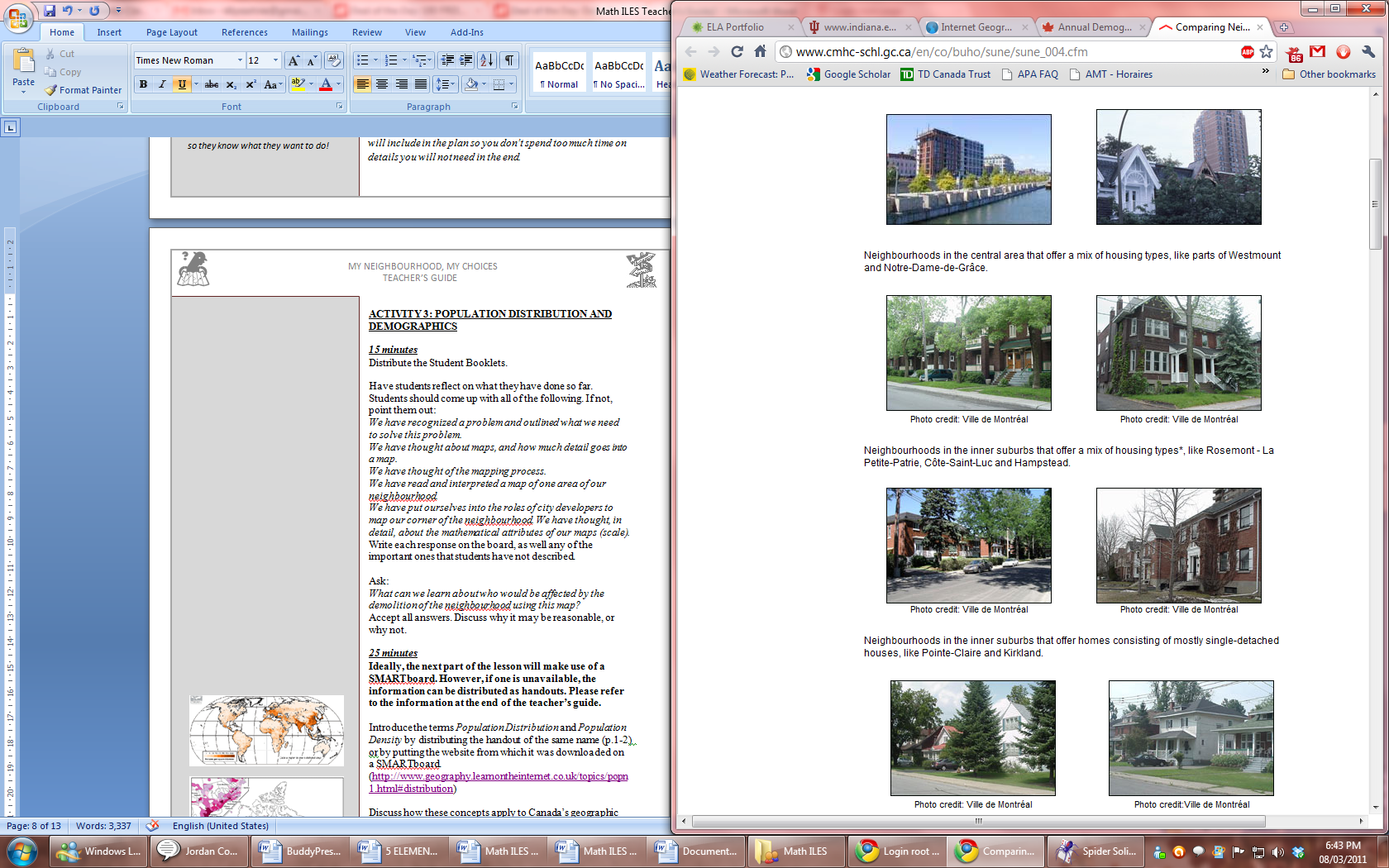
Ask:

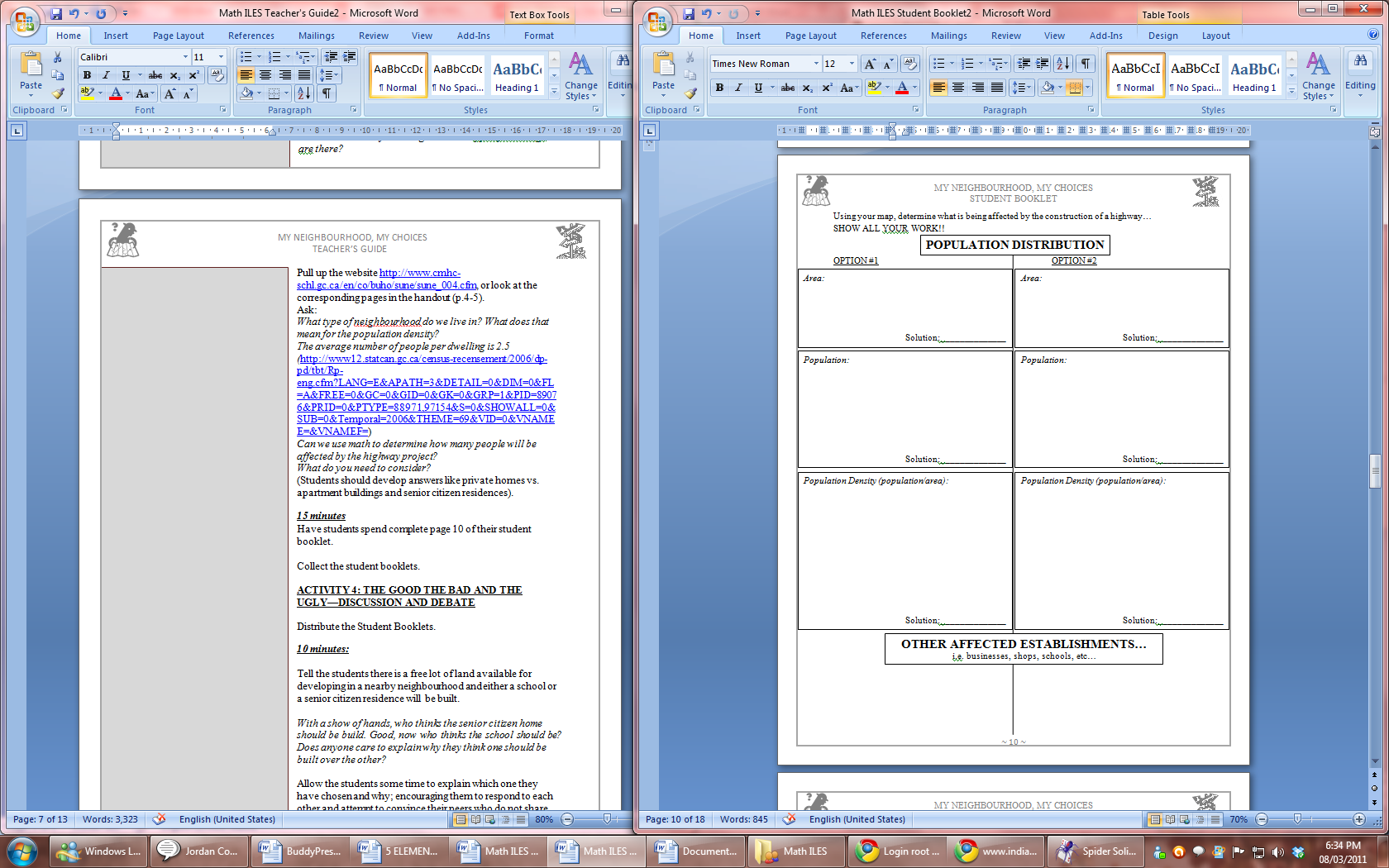
*What does this have to do with the map you have made?*

Give students a couple of minutes to throw out ides.

*Is it possible to figure out how many people live in an area based on how many dwellings and what type of dwellings are there?*

Pull up the website <http://www.cmhc-schl.gc.ca/en/co/buho/sune/sune_004.cfm>, or look at the corresponding pages in the handout (p.4-5).



Page 10

Ask:

*What type of neighbourhood do we live in? What does that mean for the population density?*

*The average number of people per dwelling is 2.5 (*<http://www12.statcan.gc.ca/census-recensement/2006/dp-pd/tbt/Rp-eng.cfm?LANG=E&APATH=3&DETAIL=0&DIM=0&FL=A&FREE=0&GC=0&GID=0&GK=0&GRP=1&PID=89076&PRID=0&PTYPE=88971,97154&S=0&SHOWALL=0&SUB=0&Temporal=2006&THEME=69&VID=0&VNAMEE=&VNAMEF=>)

*Can we use math to determine how many people will be affected by the highway project?*

*What do you need to consider?*

(Students should develop answers like private homes vs. apartment buildings and senior citizen residences).

***15 minutes***

Have students spend complete page 10 of their student booklet.

Collect the student booklets.

**ACTIVITY 4: THE GOOD THE BAD AND THE UGLY—DISCUSSION AND DEBATE**

Distribute the Student Booklets.

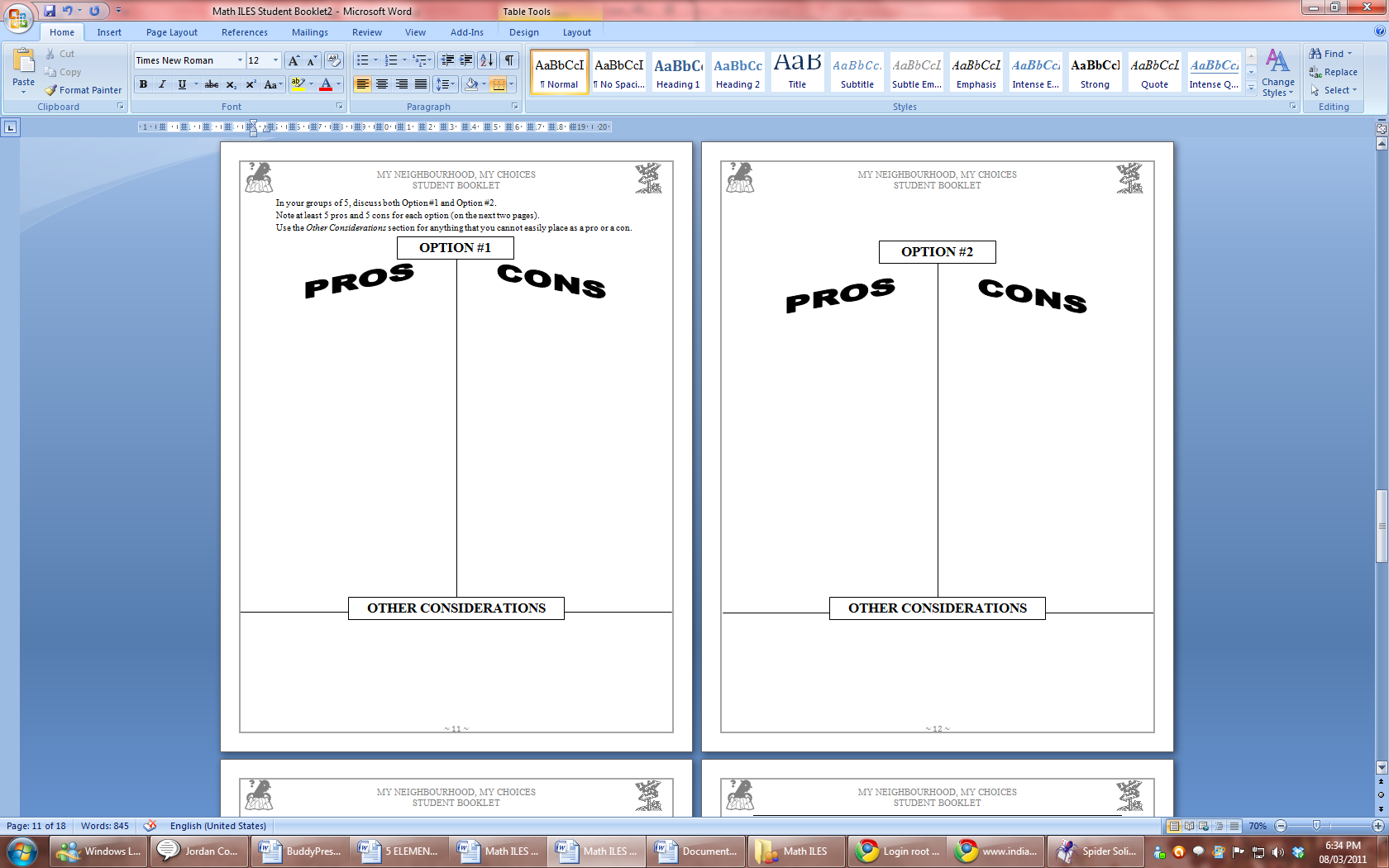
***10 minutes:***

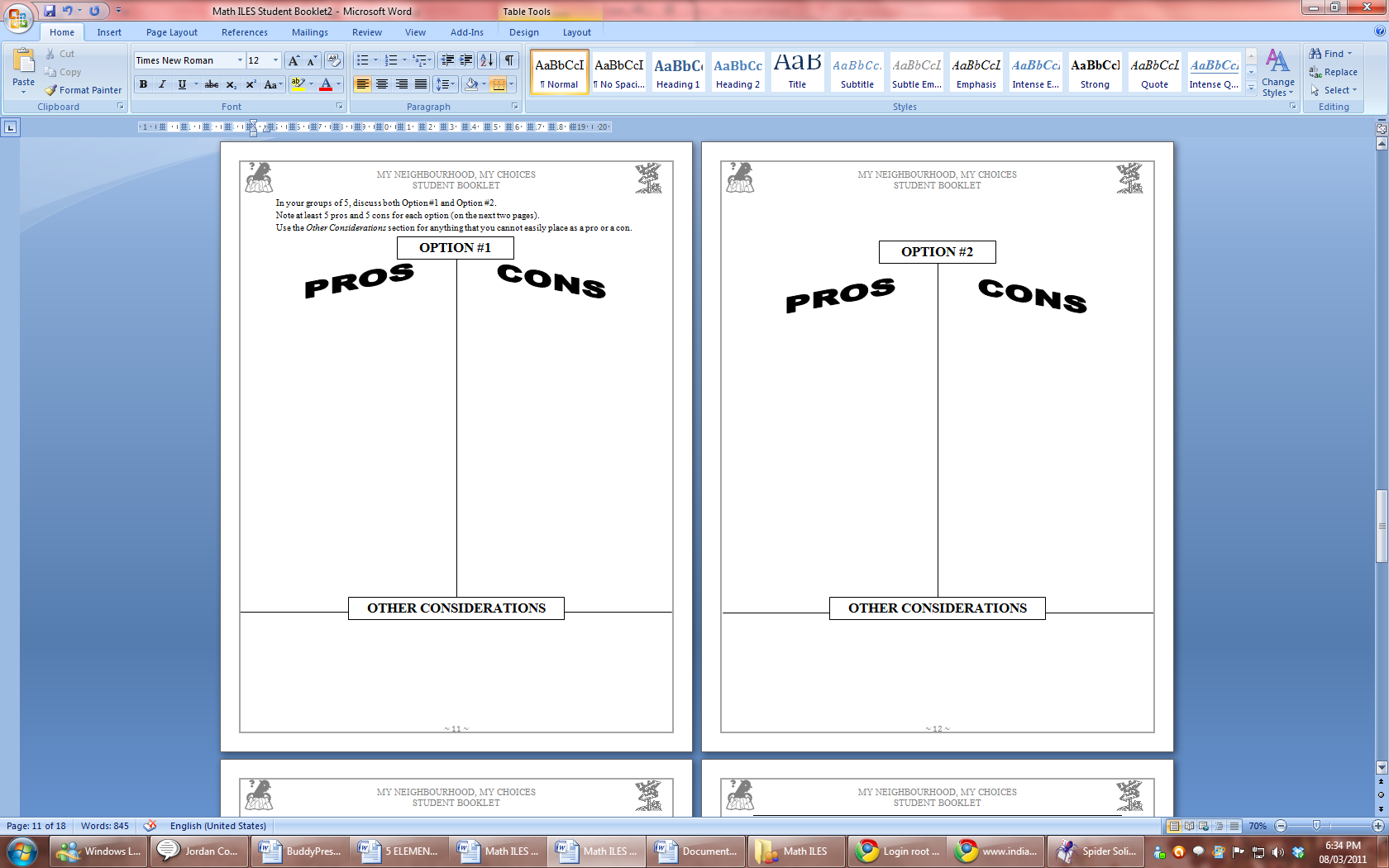
Tell the students there is a free lot of land available for developing in a nearby neighbourhood and either a school or a senior citizen residence will be built.

*With a show of hands, who thinks the senior citizen home should be build. Good, now who thinks the school should be?*

*Does anyone care to explain why they think one should be built over the other?*

Allow the students some time to explain which one they have chosen and why; encouraging them to respond to each other and attempt to convince their peers who do not share the same thoughts as them.

Page 11

Page 12

*This is excellent! So for today’s we will have a class debate on the pros and cons surrounding the two options for building the highway (see previous lessons)*

***5 minutes:***

On page 11and 12 of the student’s booklet show the students the two pages dedicated to this debate.

*In a moment I will divide you into groups of 5, and inform you whether your group is for or against the option. Think carefully and use all the information we have learnt so far. Answers such as: because, that’s why or it just is are not considered educational answers so try and think about really good reasons!*

Divide the students into groups using the 1-5 method (assign each student a number between 1 and 5) then, assign each table a number so the students know where they should be.

*Those of you who are “pros” teams will write your reasons in the left column, and those of you who are “cons” teams will write them in the column on the right. The box at the bottom of the page is reserved for other possibilities, maybe compromises that your team has come up with.*

*At the end, we will have a pros team and a cons team come up present their ideas. It will be beneficial for you to takes notes on what other teams say (especially when a team opposite yours is presenting their ideas).*

***15-20 minutes:***

Let the students work with their groups to come up with the best 5 options. Encourage a rough draft if they are having difficulty choosing the 5 best. Keep the students encouraged throughout the whole process, and introduce concepts and ideas they might not have otherwise thought of.

***25-30 minutes:***

Ask for any volunteers to go first, encouraging an open mind when listening to the points people have come up with.

*Don’t forget to keep notes on what is said! A large part of decision making is listening!*

***5 minutes:***

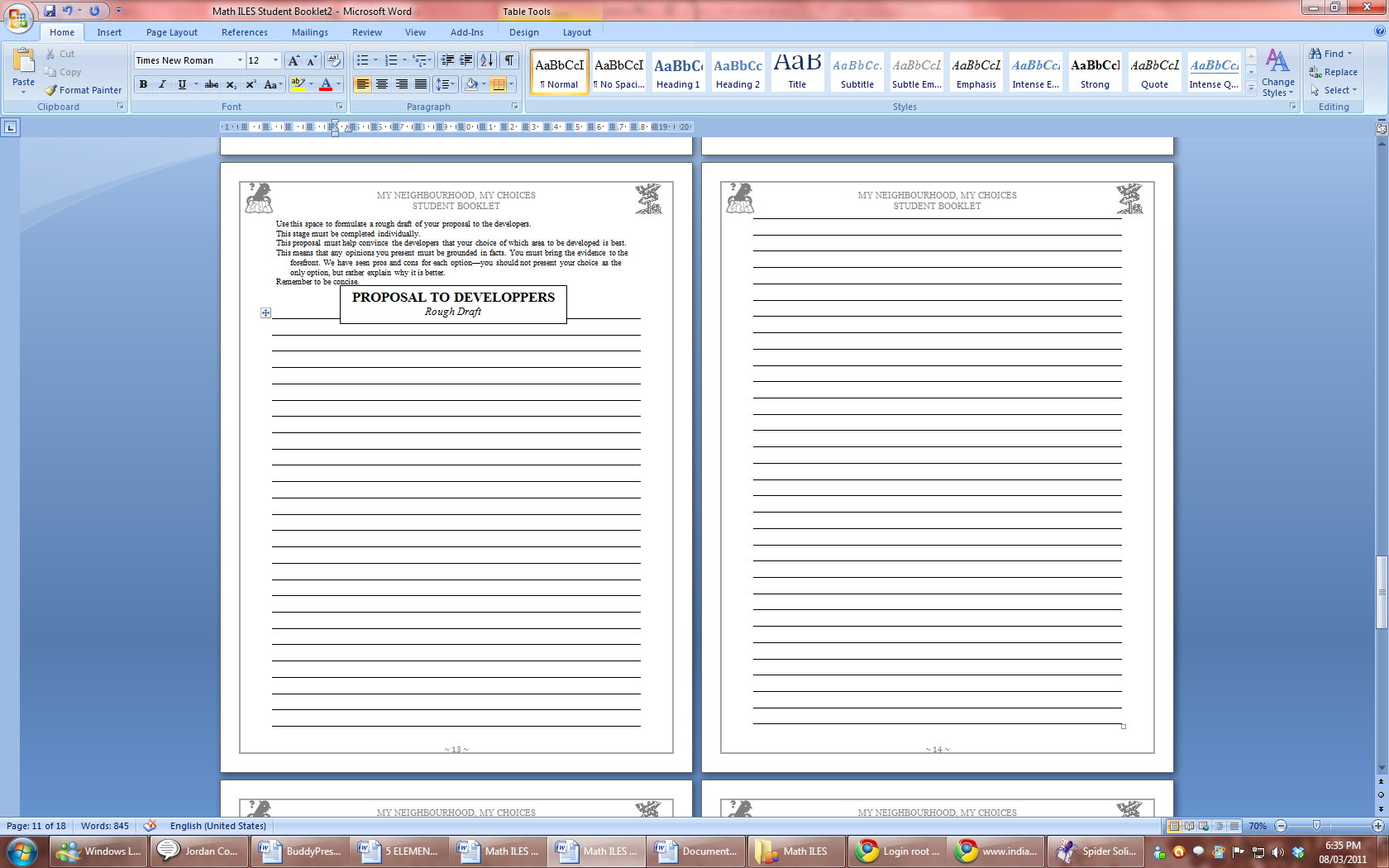
De-brief what was said and learnt throughout the lesson.

*Did anyone change their mind either in their groups or listening to an opposing group?*

*Would you recommend debates as an effective problem solving method?*

Let the students discuss and interact with one another (in an organised manner), guiding them to understand the importance of listening to either side of an argument, and the difficulty of making decisions that impact a number of people.

*De-briefing is the most important part of the lesson! It is what helps students absorb and retain what has been said.*

Pages 13-14

Collect the student booklets.

**ACTIVITY 5: WRITING A CONVINCING PROPOSAL**

***5 minutes***

Distribute the Student Booklets.

Recap for students.

Looking at the booklets, ask:

*What do you need to do next.*

Write a proposal.

*What do you think a proposal is?*

A paper to convince someone of something.

*What is the purpose of your proposal?*

To convince develppers which option they should demolish to build a highway.

*Who is your intended audience?*

The developers.

***10 minutes***

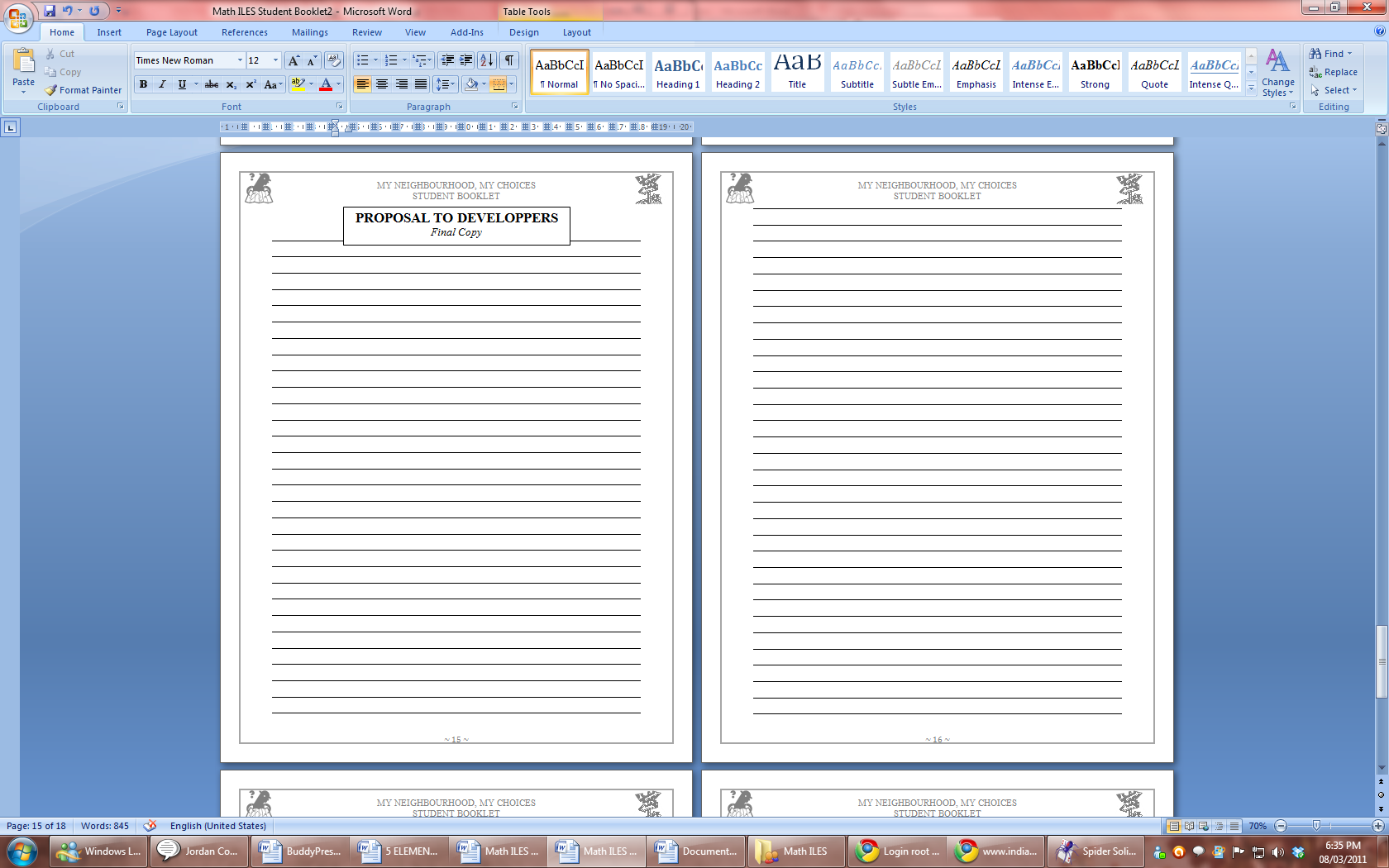
Explain:

*The developers are not your best friend or your mother. You have to take on the language of a professional. Try to be formal, as if you were speaking to the principal or a police officer.*

Students also must understand the general form of writing a persuasive proposal paper.

Explain, and write on the board/open on the SMARTboard:

Take any questions about the writing of a proposal.

  
Pages 15-17

***45 minutes***

Give students time to write their drafts.

Be available to answer any questions while they do this. Remind them that it is an individual paper, but allow quiet discussions with classmates—ensure that the discussions are on the topic of the situational problem.

Collect the student booklets.

**Part 2**

***50 minutes***

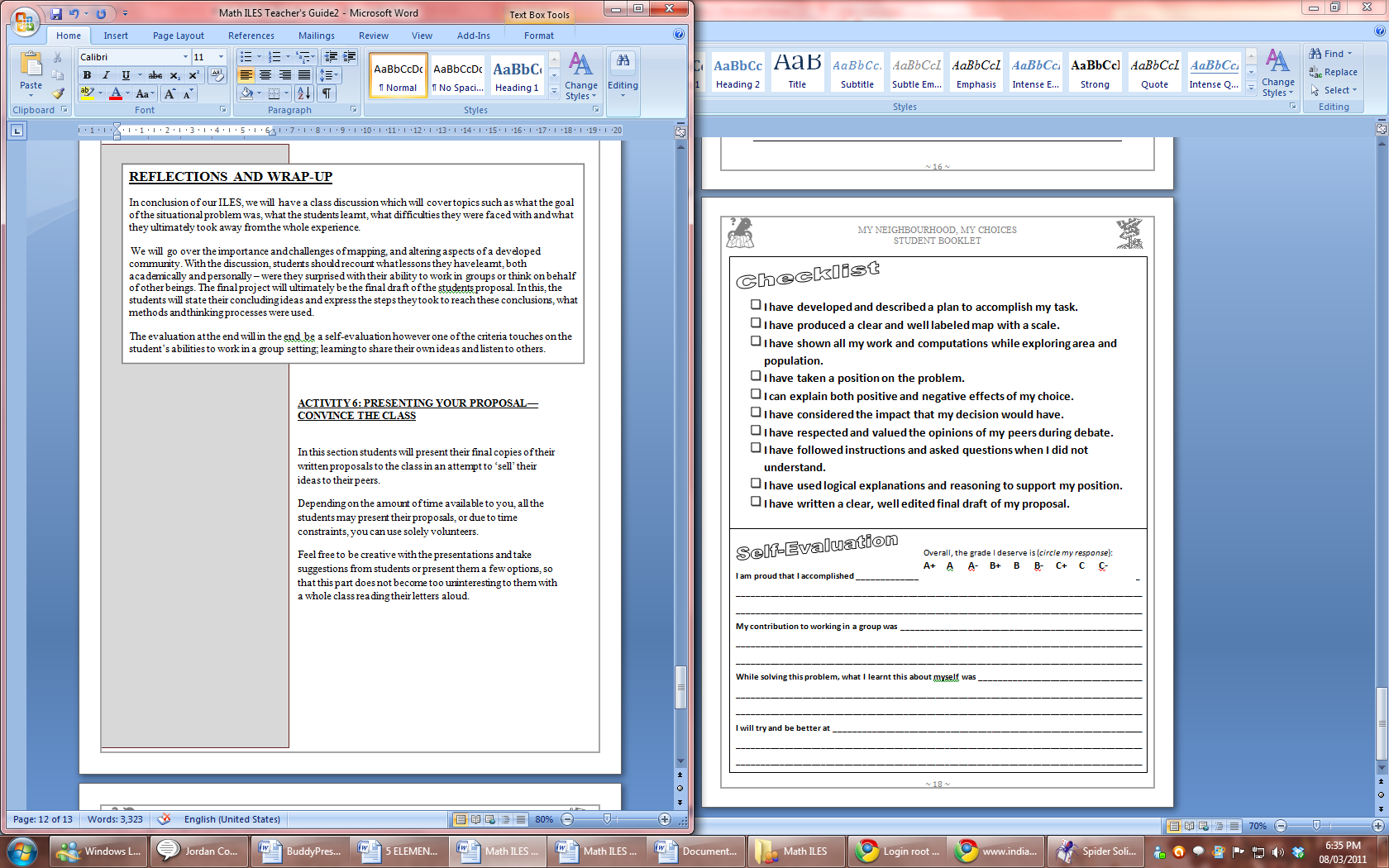
Students will correct their drafts and write their good copy on pages 15-17.

**REFLECTIONS AND WRAP-UP**

In conclusion of our ILES, we will have a class discussion which will cover topics such as what the goal of the situational problem was, what the students learnt, what difficulties they were faced with and what they ultimately took away from the whole experience.

We will go over the importance and challenges of mapping, and altering aspects of a developed community. With the discussion, students should recount what lessons they have learnt, both academically and personally – were they surprised with their ability to work in groups or think on behalf of other beings. The final project will ultimately be the final draft of the students proposal. In this, the students will state their concluding ideas and express the steps they took to reach these conclusions, what methods and thinking processes were used.

The evaluation at the end will in the end be a self-evaluation however one of the criteria touches on the student’s abilities to work in a group setting; learning to share their own ideas and listen to others.

Page 18

**ACTIVITY 6: PRESENTING YOUR PROPOSAL—CONVINCE THE CLASS**

***50 minutes***

In this section students will present their final copies of their written proposals to the class in an attempt to ‘sell’ their ideas to their peers.

Depending on the amount of time available to you, all the students may present their proposals, or due to time constraints, you can use solely volunteers.

Feel free to be creative with the presentations and take suggestions from students or present them a few options, so that this part does not become too uninteresting to them with a whole class reading their letters aloud.

This is also a time to wrap up the ILES.

Students should complete the Checklist and the Self-Evaluation on page 18.

Give them a chance to talk about how they feel about the unit.