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| About this Lesson |
| In this lesson, students have an opportunity to experience the effects of urban growth on their personal finances. The phenomena of urban sprawl, vehicle use, traffic congestion, and population density have distinct effects on personal finances. This lesson will serve as a bridge between urban geography and financial literacy. |

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| **Grade Level** | **Course(s)/subject(s)** | **Learning Goal(s)** | **Suggested**  **Timing** |
| 9–10 | CGC1D – Issues in Canadian Geography CGC1P – Issues in Canadian Geography  \*Also applicable in Economics and Business. | At the end of this lesson, students will:   * understand the cost-benefit relationship of living closer * to the urban core versus living in the suburbs or the rural area; * compare the benefits and drawbacks of renting, within the context of an urban setting; * analyze the geographic impact on long-term property value (greenbelts, gentrification etc.). | 70 minutes x 2 |

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| Curriculum Links |
| Canadian and World Studies, grades 9 and 10 (2013) Issues in Canadian Geography (CGC1D)  Livable communities  E2.2 Analyze various economic, social, and political impacts of urban growth (e.g., cost of expanding infrastructure and public services; health impacts, such as faster spread of disease in densely populated communities, increases in asthma attacks as a result of poor air quality, and stress related to crowding; traffic congestion and related economic costs; conflict over development priorities).  E2.3 Describe strategies that urban planners use to control urban sprawl (e.g., green belts, high density residential infill, gentrification), and analyse examples of their implementation. |

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| Curriculum Links (cont’d.) |
| Issues in Canadian Geography (CGC1P)  Livable communities  E2.2 Explain how changes in land use can affect the growth or decline of different parts of a community (e.g., new suburban malls can drain business from downtown stores and lead to the decline of a community’s central core; replacing an old industrial district with retail or recreational development, adding additional transportation capacity, new cultural institutions, amenities, industrial parks can stimulate growth). |

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| Materials List |
| * The Greenbelt Plan, Appendix A |

| **Timing**  (Mins.) | **Lesson Sequence** | **Assessment for and as Learning Opportunities** (self/peer/teacher) |
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| MINDS ON | | |
|  | Write “costs of living in a city” on the board and ask students to raise their hands if they have examples of expenses that are specific to living in a city. Then ask students about the expenses of living outside of the city. Together with students, compile a Venn diagram on the board to compare the different costs.  After ideas have been shared, explain to students that a cost/benefit tradeoff exists when living closer to a city versus living further from the urban core.  Some factors to consider include:   * Transportation needs and costs * Psychological factors such as lifestyle; commuter * The opportunity cost of lost time (i.e., travelling instead of working) * The ecological impact * Property costs * Impact on disposable income |  |

| **Timing**  (Mins.) | **Lesson Sequence** | **Assessment for and as Learning Opportunities** (self/peer/teacher) |
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| MINDS ON (cont’d.) | | |
|  | Activity: Creating a budget – living outside of the city  List the following annual incomes and costs on the board:   * Downtown office employee salary = $60,000 * Suburban office employee salary = $50,000 * Car cost (insurance, fuel, depreciation) = $7,500 * Downtown parking = $1,000 * Housing, outside of the city = $13,000 * Housing, inside the city Limits = $20,000 * Public transit (inside the city only) = $1,500  1. Ask students to create a budget (inflows/outflows) based on their costs of living outside of the city on a yearly basis. 2. Ask students to create a budget based on their costs of living in the city on a yearly basis.   After the students have worked on the activity for 10 minutes, get a few students to write their ideas on the board and encourage them to share their thoughts with the rest of the class.  Conclude the activity by asking students whether there were any factors not considered in the analysis that should have been. |  |
|  | Optional:  Extension/stretch activity:  Extend your learning with the following resource. Compare the costs of living in different cities around the world <http://www.expatistan.com/cost-of-living>  Ask students to come up with geographical hypotheses as to why it is more expensive to live in certain cities as opposed to others.  Explain that certain cities are more expensive due to geographic factors such as higher population density, greenbelts outside the urban core which limits the rise of suburbs, poor transportation (necessitating the need to live close to the city core, which is more expensive, etc.). |  |

| **Timing**  (Mins.) | **Lesson Sequence** | **Assessment for and as Learning Opportunities** (self/peer/teacher) |
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| MINDS ON (cont’d.) | | |
|  | Context for learning  Bill Fold is a fictional character who is constantly getting himself into financial scrapes. Use the scenario below to provide students with a context for learning.  Bill Fold is a local politician who is considering the benefits and costs of increasing urban development beyond city limits. He is asking for your help to perform an analysis in order to determine whether to support the expansion of city limits and propose this initiative to the council. |  |
| ACTION | | |
|  | Instruction: Urban economics  A decision as to whether to expand a city would require an analysis of factors that would have positive and negative effects on the citizens. In the previous activity, you conducted a personal financial analysis using quantitative data to decide whether  to live in the city or outside of the city. Now you will conduct a cost/benefit analysis considering qualitative and quantitative factors in relation to expansion of city limits.  Think-Pair-Share  Students to come up with possible effects of expanding the city limits and share their ideas with the class.  Ensure that the following points are discussed:   * Higher costs to provide transportation services to those who live outside of the city * Psychological factors for citizens such as the stress of commuting * The societal opportunity cost of lost time (i.e., travelling instead of working) * The ecological impact of urban development/expansion * Restrictions on urban growth (e.g., greenbelts) * Lower property values * Impact on disposable income * Other factors |  |

| **Timing**  (Mins.) | **Lesson Sequence** | **Assessment for and as Learning Opportunities** (self/peer/teacher) |
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| ACTION (cont’d.) | | |
|  | Guided practice activity: The Greenbelt Plan case study  Give students 10 minutes to read the passage in Appendix A. Ask students to identify the key case facts. Write their ideas on the board.  Ask students to consider the following questions:   1. Why did the government of Ontario introduce the Greenbelt Plan? 2. What benefits and costs of the greenbelt did the article show? 3. How would this plan impact your budget as an individual? 4. What advice would you give to Bill Fold, the politician? 5. What impact does this plan have on property values? |  |
|  | Extension: Renting in an urban vs rural setting  Class discussion  People can choose two options in regards to housing. They can either rent, or they can buy. Renting typically means that the individual will pay a fee on a monthly basis to make use of a dwelling. In contrast, owners do not need to pay a fee. However, they may buy their property with debt (mortgage) from a financial institution, which will need to be repaid.   |  |  |  | | --- | --- | --- | | Category | Urban | Rural | | Property prices | Likely higher | Likely lower | | Lifestyle | More active | More sedentary | | Cost of living | Higher | Lower | | Transportation | Easy access | Limited access | | Community-oriented | Not likely | Most likely |   Given these facts, which environment (urban or rural) is it relatively more advantageous for an individual to buy their property? To rent their property? |  |

| **Timing**  (Mins.) | | **Lesson Sequence** | | **Assessment for and as Learning Opportunities** (self/peer/teacher) |
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| CONSOLIDATION/DEBRIEF | | | | | |
|  | | Class discussion  In order to help students make connections between geography and personal finance, engage students in a discussion using the following questions as a guide:   1. What geographical factors should individuals consider when making the decision to live inside or outside a city? 2. What factors should society consider when deciding whether to expand a city beyond current limits? 3. Where is renting more advantageous – in an urban or rural setting?   Closing reflection  Write the following question on the board: “What is the economic/social/political risk of letting our cities expand?”  Ask students to use what they have learned today about geography and cost/benefit analysis to respond to this question in a half-page reflection. Student reflection sheets should be handed in and assessed as an assessment for learning. | |  | |

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| The Greenbelt Plan |
| The Golden Horseshoe is one of the fastest growing regions in North America.  The Greenbelt is a cornerstone of Ontario’s proposed Greater Golden Horseshoe Growth Plan which is an overarching strategy that will provide clarity and certainty about urban structure, where and how future growth should be accommodated, and what must be protected for current and future generations.  The Greenbelt Plan identifies where urbanization should not occur in order to provide permanent protection to the agricultural land base and the ecological features and functions occurring on this landscape.  The Greenbelt Plan includes lands within, and builds upon the ecological protections provided by, the Niagara Escarpment Plan (NEP) and the Oak Ridges Moraine Conservation Plan (ORMCP). It also complements and supports other provincial level initiatives such as the Parkway Belt West Plan and the Rouge North Management Plan.  The Protected Countryside lands identified in this Greenbelt Plan are intended to enhance the spatial extent of agriculturally and environmentally protected lands currently covered by the NEP and the ORMCP while at the same time improving linkages between these areas and the surrounding major lake systems and watersheds. Collectively, the lands in these three plans form the Greenbelt. The Protected Countryside (as shown on Schedule 1 of this Greenbelt Plan) is made up of an Agricultural System and a Natural System, together with a series of settlement areas.  The Agricultural System is made up of specialty crop, prime agricultural and rural areas. The Natural System identifies lands that support both natural heritage and hydrologic features and functions. Both systems maintain connections to the broader agricultural and natural systems of southern Ontario.  The settlement areas, identified as Towns/Villages and Hamlets, vary in size, diversity and intensity of uses and are found throughout the Protected Countryside.  While providing permanent agricultural and environmental protection, the Greenbelt also contains important natural resources and supports a wide range of recreational and tourism uses, areas and opportunities together with a vibrant and evolving agricultural and rural economy.  Source: Ontario Ministry of Municipal Affairs and Housing <http://www.mah.gov.on.ca/Page189.aspx> |

**APPENDIX A**