



TEACHERS' GUIDE

Compiled by: Midwestern Ontario Regional Green Jobs Strategy

This Teachers Guide was adapted to include Canadian content from *RECLAIM the FUTURE: Learning Activities*, an initiative of the Ella Baker Centre for Human Rights.

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Introduction

The following teacher's guide was compiled to assist teachers in preparation for the upcoming Green Energy, Agriculture & Bio-Science Career Fair on April 13-14, 2011 at the Clearwater Arena in Sarnia, Ontario.

The guide consists of three sections:

1. An **in-class** activity to provide a platform for students to understand what the green economy is and identify the extent that the green economy is impacting their community in advance of the career fair. The activity is designed to begin a conversation about the rapidly growing "green economy", and how it can be leveraged to improve the outlook of our province in terms of environmental resilience, economic development and job availability. The goal of this activity is to provide a base of understanding and awareness in preparation for the career fair.
2. A list of questions for students to ask exhibitors **at the career fair**. The list of questions is designed to give the students a starting point to engage exhibitors in discussion. The questions will act as a tool for transfer of knowledge.
3. A **glossary** to act as a term of reference for this document and create a common understanding of words they will encounter throughout the activity and career fair.

Teachers are invited to adapt the lessons in this guide to meet the needs of their students when considering age and developmental level.

Activity #1 The Green Economy and My Community

Background

A growing concern about global warming and the human impact on the environment has led to a dramatic increase in services, products and technologies that are considered “environmentally sustainable” or “green.” Together, these new services, products, and technologies are creating a huge market, and consequently a new sector of our economy. This emerging “green economy” (which includes things like hybrid cars, wind turbines, green buildings and solar panels) is impacting communities across Ontario.

Activity Overview

In this activity, students discuss the meaning of “green,” learn about the green economy, and then break into sector groups to investigate to what degree the green economy is (or isn’t) impacting their community.

Learning Outcomes

- Students explore the definition of “green”
- Students identify sectors of the “green economy”
- Students determine where the green economy is/isn’t present in their own community

Key Concepts

- Green Economy
- Green Business
- Global Warning

Time

Three 45 minute class periods

Preparation and Materials

- Presentation materials (Projector, Computer, Whiteboard & Markers, etc.)
- Community assessment grid (copies for class)
- Green economy overview handout (copies for class)
- Group instructions (copies for class)
- Large format drawing of the assessment grid

Extensions

1. Students are split up into groups and told that they have been hired to start a new green business in their community. They must determine what product to offer, how to make sure that their business is green, etc. Their goal is to win “start-up” funds from the local city/town government. The activity culminates with group presentations to the “review board,” which may be the teacher or a group of teachers/colleagues. (Note: The review board should determine assessment criteria.)

2. Students design a poll to assess public knowledge about global warming and/or the green economy. They may choose to interview business owners, community leaders, citizens (family, fellow students, and friends), public officials, non-profit organizations, etc. Results from the poll are tabulated and students write final reports (and/or make presentations) interpreting their class findings.
3. Students conduct a media search to find articles in the national media that relate to the growing "green economy." They may also look at recently published newspapers or newsletters in their neighbourhood. Can they find traces of the emerging green economy in their local media?

Related Web Resources

www.workgreen.ca

Class One

Class Discussion (15 minutes)	Open a class conversation about sustainability and the word "green." <ul style="list-style-type: none"> • Who has heard/seen the word "green" lately? • Where did you hear/see it? (Poster, billboard, advertisement, magazine, newspaper, business, conversation, etc) • What does "green" mean to you? Lead a large group brainstorm on this question and record student answers on butcher paper or chalkboard. Check for understanding and offer a final definition of "green" that synthesizes appropriate student answers. • What are some examples of: green products, green technology, and green businesses? (Record answers.)
Individual Reading (10 minutes)	Have students read the green economy overview handout.
Class Discussion (10 minutes)	Back in the large group, discuss student reactions to the handout. Review student answers to the last question from the original class brainstorm. Are there obvious items missing from the class brainstorm? Do the class ideas fit into the areas of the green economy? Get student opinions on whether or not they think the green economy has a presence in their community.
Group Discussion (10 minutes)	Break students up into small groups (4-7 students per group). Introduce the class goal: to assess the presence of the Green Economy in their neighbourhood. Present the large Community Assessment Grid and post visibly. Distribute group instructions and community assessment GRID handout. Have students read their group instructions and determine their research schedule. (How will they use their time the following class period? What should they do for homework tonight?)

Class Two (optional if assigned as homework)

Optionally the research could be assigned solely as homework. If this option is selected, skip to day 3.

Group Work (10 minutes)	Students conduct research (online, in community, etc.) according to the plan they created during Step 4 of Day One.
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Class Three

Group Presentations (30 minutes)	Each group reports back answers to their research questions and then fills in their section of the large community assessment grid.
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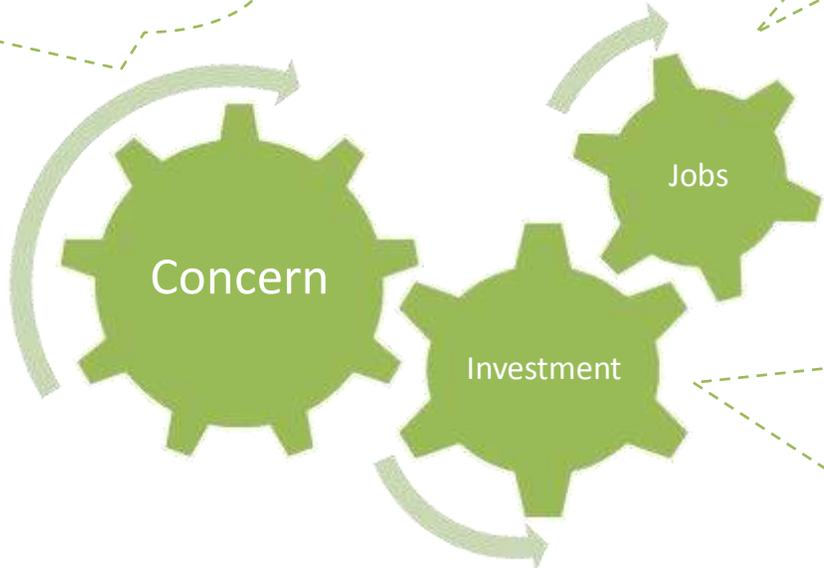
Class Discussion (10 minutes)	Discuss group findings as visualized by the community assessment grid. What did we find out about our community? Is our town/city/town participating in the green economy? Why/why not? What does that mean?
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Wrap-up Class Discussion (5 minutes)	Discuss next steps. Are there actions we can take to bring green opportunities to our neighbourhoods? What can we do to support the health of our community, family and environment?
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A Green Economy Overview

A growing concern about global warming and human impact on the environment has led to a dramatic increase in services, products, and technologies that are considered “environmentally sustainable” or “green.” Together, these new services, products, and technologies are creating a huge new market, and consequently, a new sector of our economy. This emerging “green economy” (which includes things like hybrid cars, wind turbines, green buildings, and solar panels) is exploding into a billion-dollar sector – with more growth predicted.

Investments relate to job growth and opportunities. According to ECO Canada, in 2010 there are more than 682,000 environmental employees which makes up 4% of Canada’s total employed labour force – that is 5 times larger than the total direct employment in auto manufacturing in 2008. In comparison, 300,000 workers are employed in the energy production sector.



Clean energy has experienced investment growth of 230 per cent since 2005. In 2009, US \$162 billion was invested in clean energy around the world. In the Canadian market, \$779 million in public funding has been committed to carbon capture and storage projects and \$1,500 million in requested funding for Wind energy.

- The green economy includes:
- Green building and industrial goods
 - Renewable energy
 - Resource-efficient products
 - Alternative transportation
 - Environmental management
 - Natural organic products
 - Ecological home and office products
 - Environmentally friendly appliances
 - Eco-tourism and travel

Sustainability is the ability to provide for the needs of the world’s current population without damaging the ability of future generations to provide for themselves. When a process is sustainable, it can be carried out over and over without negative environmental effects or impossibly high costs to anyone involved.

Source: sustainabletable.org

Community Assessment Grid - Is the Green Economy present in our Community?

In your community, are there:		None	A Few	A Fair Amount	Many
Food Group	Grocery stores that carry organic food				
	Grocery stores that carry fresh fruits and vegetables				
	Farmer's markets				
	Community Gardens				
	Restaurants that offer organic food				
	City/town run food-scrap recycling programs/city/town provided compost bins				
	Community Supported Agriculture (CSA's) or organic home delivery programs?				
Energy Group	Homes with solar panels or wind turbines				
	Businesses with solar panels or wind turbines				
	Alternative energy companies (solar panel companies, etc.)				
	Alternative energy producers (i.e. wind farms, etc.)				
	Buildings that are considered "green buildings"				
	Green power options through your utility company				
	Places that sell energy saving appliances/devices				
Transportation Group	Schools that are part of "Green Schools"				
	Residents who drive alternative fuel vehicles				
	City/town buses or city/town vehicles that run on alternative fuels				
	Alternative energy fueling stations				
	Reliable, accessible public transit systems				
	Pro-bicycle attributes (i.e. dedicated bicycle lanes, racks, etc.)				
	Public or private car sharing programs				
Business & Industry Group	Streets designed for pedestrians (walking paths, sidewalks, trails)				
	Recognized green businesses				
	Businesses that utilize "green" practices				
	Any "green industries"				
	Business owners interested in becoming a green business				
	Educational opportunities for business owners interested in becoming a green business				
	City/town policies that recruit green industry/encourage green business development				
Policy	City/town policies that reduce energy consumption and/or increase use of renewable energy sources				
	City/town supported local food initiatives				
	City/town incentives for green buildings				
	City/town supported green retrofitting of buildings				
	Non-profit or community organizations involved in creating a local, green economy				
	Offices of sustainability or sustainable development				

Group #1 – Business and Industry

Overview

Your class goal is to investigate your local green economy. Does it exist? If so, where? Is it strong, just starting, and growing? There are five major areas you must assess to know what's up with your local green economy. These areas are: FOOD, ENERGY, TRANSPORTATION, GREEN BUSINESS/INDUSTRY, and CITY/TOWN POLICY.

Team Task

You are the BUSINESS AND INDUSTRY GROUP. You must assess the presence of Green Business and Industry in your community.

Instructions

1. Use the research questions below to guide your investigation.
2. Utilize different research techniques (i.e.: online research, interviews, publications from community-based organizations, etc.)
3. Fill out the BUSINESS AND INDUSTRY section of your class Assessment Grid.
4. Prepare your presentation. Make sure to include the answers to your research questions! The presentations should be approximately 5 minutes in length.

Research Questions

- What is a green business?
- What are the characteristics of a green business?
- What is a green industry?
- Are there any businesses or industries that are considered “green” in your community?
- What do business owners know/think about being green?

Online Resources

www.workgreen.ca

Group #2 – Transportation

Overview

Your class goal is to investigate your local green economy. Does it exist? If so, where? Is it strong, just starting, and growing? There are five major areas you must assess to know what's up with your local green economy. These areas are: FOOD, ENERGY, TRANSPORTATION, GREEN BUSINESS/INDUSTRY, and CITY/TOWN POLICY.

Team task

You are the TRANSPORTATION group. You must assess the presence of alternative fuels and environmentally friendly transportation in your community.

Instructions

1. Use the research questions below to guide your investigation.
2. Utilize different research techniques (i.e.: online research, interviews, publications from community-based organizations, etc.)
3. Fill out the TRANSPORTATION section of your class Assessment Grid.
4. Prepare your presentation. Make sure to include the answers to your research questions! The presentations should be approximately 5 minutes in length.

Research Questions

- What are alternative fuel vehicles?
- How prevalent are they on our streets?
- Does the city/town have public transit systems?
- How supportive is your community for bicyclists?
- Are there public or private car sharing programs in your community?

Online resources

www.workgreen.ca

Group #3 – Food

Overview

Your class goal is to investigate your local green economy. Does it exist? If so, where? Is it strong, just starting or growing? There are five major areas you must assess to know what's up with your local green economy. These areas are: FOOD, ENERGY, TRANSPORTATION, GREEN BUSINESS/INDUSTRY, and CITY/TOWN POLICY.

Team task

You are the FOOD group. You must assess the presence of Sustainable Food and Agriculture in your community.

Instructions

1. Use the research questions below to guide your investigation.
2. Utilize different research techniques (i.e.: online research, interviews, publications from community-based organizations, etc.)
3. Fill out the FOOD section of your class Assessment Grid.
4. Prepare your presentation. Make sure to include the answers to your research questions! The presentations should be approximately 5 minutes in length.

Research Questions

- Where do most people get their food in your community?
- Are there local/organic foods offered in your grocery stores?
- Are there community gardens and/or farmers' markets?
- What are CSA's? Are there any in your neighborhood?
- What about home delivery programs for healthy food?
- Does the city/town sponsor a food scrap recycling/composting program?

Online Resources

www.workgreen.ca

Group #4 – Energy

Overview

Your class goal is to investigate your local green economy. Does it exist? If so, where? Is it strong, just starting or growing? There are five major areas you must assess to know what's up with your local green economy. These areas are: FOOD, ENERGY, TRANSPORTATION, GREEN BUSINESS/INDUSTRY, and CITY/TOWN POLICY.

Team Task

You are the ENERGY group. You must assess the presence of alternative energy in your community.

Instructions

1. Use the research questions below to guide your investigation.
2. Utilize different research techniques (i.e.: online research, interviews, publications from community-based organizations, etc.)
3. Fill out the ENERGY section of your class Assessment Grid.
4. Prepare your presentation. Make sure to include the answers to your research questions! The presentations should be approximately 5 minutes in length.

Research Questions

- Are there homes or businesses that have solar panels or wind turbines?
- What is green power? Are there any green power companies or green power producers in your community? Does our local utility company offer any green power programs? (Like green pricing options?)
- What is a green building?
- Is your school part of the Alliance to Save Energy's Green Schools program? Are there any schools in your community that are?
- What are energy saving appliances and devices? What is Energy Star? Is there a place to buy Energy Star products? What about compact fluorescent light bulbs?

Online Resources

www.workgreen.ca

Group #5 – Policy

Overview

Your class goal is to investigate your local green economy. Does it exist? If so, where? Is it strong, just starting or growing? There are five major areas you must assess to know what's up with your local green economy. These areas are: FOOD, ENERGY, TRANSPORTATION, GREEN BUSINESS/INDUSTRY, and CITY/TOWN POLICY.

Team task

You are the CITY/TOWN POLICY group. You must assess the presence of policy that supports creating a local, green economy.

Instructions

1. Use the research questions below to guide your investigation.
2. Utilize different research techniques (i.e.: online research, interviews, publications from community-based organizations, etc.)
3. Fill out the POLICY section of your class Assessment Grid.
4. Prepare your presentation. Make sure to include the answers to your research questions! The presentations should be approximately 5 minutes in length.

Research Questions

- Has your city/town council adopted any pro-green initiatives or policies? (Like green industry recruitment strategies, green business development, local food initiatives, green building incentives, green retrofitting initiatives, etc.)
- Has your city/town or community made a commitment to reducing energy consumption and/or increasing use of renewable energy sources?
- Are there local non-profit or community organizations involved in creating a local, green economy?
- Is there an Office of Sustainability (or related office) in your city/town government?

Resources

www.workgreen.ca

Questions for Students to Ask Exhibitors

Students will benefit from engaging exhibitors in discussion surrounding the organization, possible positions, career path and training. Sample questions that can be used as a starting off point for discussion appear below. Students are encouraged to ask at least one question to all exhibitors and continue the conversation when the answer interests them.

- What kinds of skills and experience do you look for in the employees you hire?
- What are the characteristics of your most successful employees?
- Are graduate degrees important to advancing within your organization? Which ones?
- Which courses or experiences do you suggest to be a successful candidate?
- What kind of entry-level positions (or internships) exist within your organization?
- Does your company hire on a continual basis or just at certain times of the year?
- How long does the hiring process take? What does it consist of?
- What percent of applicants are eventually hired? What is the retention rate?
- What is your organization's culture like?
- For how many years does the typical employee stay with the company?
- Are there opportunities for ongoing training through your organization?
- What made you choose this company and why do you stay?
- How long have you been with the company?
- What's the one thing that most surprised you about this company?
- How did this type of work interest you and how did you get started?
- How did you get your job? What jobs and experiences have led you to your present position?
- What are the most important personal satisfactions and dissatisfactions connected with your occupation? What part of this job do you personally find most satisfying? Most challenging? What do you like and not like about working in this industry?
- What things did you do before you entered this occupation?
 - Which have been most helpful?
 - What other jobs can you get with the same background?
- Do you find your job exciting or boring? Why?

- What does the company do to contribute to its employees' professional development?
- How does the company make use of technology for internal communication and outside marketing? (Use of e-mail, Internet, intranets, World Wide Web page, video conferencing, etc.)
- What sorts of changes are occurring in your occupation?
- How does a person progress in your field? What is a typical career path in this field or organization?
- What is the best way to enter this occupation?
 - What are the advancement opportunities?
 - What are the major qualifications for success in this occupation?
- What were the keys to your career advancement? How did you get where you are and what are your long-range goals?
- What are the skills that are most important for a position in this field?
- What particular skills or talents are most essential to be effective in your job? How did you learn these skills? Did you enter this position through a formal training program? How can I evaluate whether or not I have the necessary skills for a position such as yours?
- How would you describe the working atmosphere and the people with whom you work?
- How is the economy affecting this industry?
- What can you tell me about the employment outlook in your occupational field? How much demand is there for people in this occupation? How rapidly is the field growing? Can you estimate future job openings?
- What are the major rewards aside from extrinsic rewards such as money, fringe benefits, travel, etc.?
- From your perspective, what are the problems you see working in this field?
- What are the major frustrations of this job?
- What interests you least about the job or creates the most stress?
- If you could do things all over again, would you choose the same path for yourself? Why? What would you change?
- Does your work relate to any experiences or studies you had in college?
- How well did your college experience prepare you for this job?

- What courses have proved to be the most valuable to you in your work? What would you recommend for me?
- How did you prepare for this work? If you were entering this career today, would you change your preparation in any way to facilitate entry?
- What abilities or personal qualities do you believe contribute most to success in this field/job?
- What are the typical entry-level job titles and functions? What entry level jobs are best for learning as much as possible?
- Do you have any advice for someone interested in this field/job? Are there any written materials you suggest I read? Which professional journals and organizations would help me learn more about this field?
- What kinds of experience, paid or unpaid, would you encourage for anybody pursuing a career in this field?
- What special advice do you have for a student seeking to qualify for this position?
- Do you have any special words of warning or encouragement as a result of your experience?

Glossary of Terms

CLEAN TECHNOLOGY - An emerging sector that comprises a diverse range of products, services, and processes that harnesses renewable materials and energy sources, dramatically reduces the use of natural resources, and cuts or eliminates pollution and toxic wastes. These include such innovative and expanding technologies as solar photovoltaic (PV), wind power, hybrid electric vehicles, fuel cells, bio based materials, and advanced water filtration.

GREEN - Green is a term used to imply that a service, product, or technology is environmentally friendly (i.e. sustainable).

GREEN BUSINESS - A business that adopts principles, policies, and practices that improve the quality of life for their customers, their employees, communities, and the environment. Green businesses operate in ways that solve, rather than cause, both environmental and social problems.

GREEN ECONOMY - A rapidly growing billion-dollar sector that includes renewable energy sources, organic produce and products, green buildings, alternative fuel vehicles, and more.

GREEN-COLLAR JOB - A paid position providing environmentally-friendly products or services; term suggests high standards regarding fair wages, equal opportunity and healthy working conditions; employer may be a private business, government, non-profit or cooperative. For example: organic farmer, sustainable forestry worker, recycling technician or solar panel manufacturer.

For more information, please contact:
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