

# Instructor's Guide

for

## *Green Jobs DVD*

### Overview

The purpose of this video is to inform viewers of green job opportunities and to suggest ways they can make any job greener.

The concept of green jobs is relatively new, and interest in them grows every year. Several factors are contributing to this interest:

- People are becoming more aware of the threat of global climate change.
- As Earth's population grows and more nations are becoming industrialized, natural resources are becoming scarcer and more stressed.
- As American jobs are lost to overseas workers, interest is growing in jobs that cannot be exported, especially jobs that do not require a college degree.
- Many green jobs are in the process of emerging, so formal entry requirements have not jelled and job seekers may face less competition than they would for well-known occupations.

The term “green job” can be understood to mean a job that permits a more sustainable economy.

What does “sustainable” mean? Consider what makes our current economy not sustainable: To provide food and shelter for a population that keeps growing, we use resources that keep shrinking—energy sources, raw materials, clean air and water, and places for disposing wastes. These resources are being used at a constantly faster rate, and most scientists and economists doubt that they will be able to support Earth's population a few decades from now.

The shift to a sustainable economy is getting encouragement from governments and is becoming feasible because of the research and development work of scientists and engineers. In addition, business leaders are recognizing that high-efficiency and recycling practices save organizations money at the same time that they keep the air clean, conserve resources such as soil and nonrenewable fuels, keep our waterways free of pollution, and slow the rate of global climate change. So the term “green job” has another meaning at the level of an individual company or business: a job that enables the business to consume fewer raw materials or produce more goods using less energy.

### Presentation Suggestions

Begin by asking students what they think a green job is. They may try to define it or simply give examples. (Jot down their ideas on a blackboard or flip chart so you can review them later, after students have viewed the video and have seen some definitions and specific examples.)

Next, ask students why they think a green job might be a good or bad choice for them. Some may reject the idea of working in a green job because of stereotypes about what a green job is (for example, “tree-hugging,” or only in the energy industry, or requiring an advanced degree). Some may find one of the same stereotypes attractive. Some may cite idealistic reasons; others may cite practical reasons.

Point out that not everyone can work in a green job and not everyone will want to, but the video can make viewers aware of jobs they have not previously considered. It can also suggest ways they can make any job greener.

When you feel students have begun thinking about these issues, give them the **Anticipation Quiz** to complete before watching the video. If you wish, allow the students to state their answers and discuss them.

Show the video. Encourage students to take notes or to make changes to the answers they put down for the Anticipation Quiz while watching the video.

At the conclusion of the video, ask students to discuss any changes they made to their answers on the Anticipation Quiz as a result of information they learned. Follow up this discussion with the **Activities**.

Use the **Discussion Questions** to request oral or written responses from students or assign the questions as homework essays.

Assign the **Homework Option**, if desired.

### **Anticipation Quiz**

**Directions.** Mark the following statements true or false. You may revise your answers as you watch the video.

1. All green jobs are about producing energy from nonpolluting sources (such as sunlight or wind). \_\_\_ True \_\_\_ False
2. Most green jobs are being created in large companies. \_\_\_ True \_\_\_ False
3. Many green jobs don't require a college degree. \_\_\_ True \_\_\_ False
4. Classroom teaching can be a green career. \_\_\_ True \_\_\_ False

### **Answer Key**

1. False. Some are, but not all.
2. False. Smaller companies are finding it easier to create green jobs.
3. True. For example, many construction jobs are becoming green.
4. True. By teaching young people green practices, teachers become green workers.

### **Activities**

#### **Activity #1**

**Title:** Jobs in Solar Energy Technology

**Format:** Individual homework

**Time:** One day

**Materials:** Web browser

**Procedure:**

1. Have each student go to [www.ases.org/jobs](http://www.ases.org/jobs) (a Web page of the American Solar Energy Society).
2. Have each student click on the “Jobs” links for 5–10 companies.
3. Have the students write down five job titles. Emphasize that the jobs **do not** have to be directly involved in energy production. For example, they may be in fields such as sales, research, accounting, or information technology.

### Activity #2

**Title:** Trash to Biomass

**Format:** Group activity

**Time:** One day

**Materials:** Pen, calculators

**Procedure:**

1. Find out (or have the class find out) from the school cafeteria approximately how many pounds of food waste are discarded per day. (The estimate can be very rough.)
2. Have the class calculate how many tons per year this represents. (Don't count vacation days into the total.)
3. Have the students estimate how many houses could be powered by biogas produced from one day's food waste. Base the estimate on the assumption that biogas from one ton of food waste can power 10 average homes for one day.

### Activity #3

**Title:** Entry Requirements for Green Jobs

**Format:** Individual homework

**Time:** One day

**Materials:** Pen, Web access

**Procedure:**

1. Have students search for job openings in green occupations. Some sites to use:  
[www.greenjobs.com](http://www.greenjobs.com) (specify a keyword)  
<http://hotjobs.yahoo.com/jobs-c-green> (choose a specialization)  
[www.greenjobsearch.org](http://www.greenjobsearch.org) (specify a keyword or choose a specialization)  
[www.thegreenjobbank.com](http://www.thegreenjobbank.com) (specify a keyword or choose a state)
2. Have students choose a job and write down the entry requirements.
3. You may also ask students to research how to acquire the entry requirements—for example, how to become licensed in a particular field or how many years of college are needed for a degree in a particular subject.

#### Activity #4

**Title:** Your State's Wind Resources

**Format:** Individual homework or classroom activity

**Time:** One day

**Materials:** Web browser, map of your state with counties labeled (you can download a master copy at <http://www.nationalatlas.gov/printable/reference.html>), pen

**Procedure:**

1. Have students go to [www.windpoweringamerica.gov/wind\\_maps.asp](http://www.windpoweringamerica.gov/wind_maps.asp) (a Web page of the U.S. Department of Energy).
2. Have students click your state on the map of the United States (or the state's link below it).
3. Have students click the state map to see an enlarged state map showing average wind speeds in various locations in the state.
4. Have students record the average wind speed where they live.
5. On the state map that you provided, have students specify a county in your state that would be a good location for a wind farm. (This map will help students identify counties on the wind-speed map, where only the counties' outlines appear.) You may encourage students to consult other maps to try to find locations that avoid parks, wetlands, and heavily populated areas.

#### Activity #5

**Title:** Conduct an Energy Audit of Your Home

**Format:** Individual homework

**Time:** Several days

**Materials:** Web browser, utility bills

**Note:** This assignment should be optional. Some households cannot easily lay hands on their utility bills, and some people may be reluctant to share the information with outsiders.

**Procedure:**

1. Have each student go to <http://hes.lbl.gov> and do the interactive exercise there.
2. Ask each student to report on how much he or she could save through various energy-efficient measures.
3. Compile all students' reports in tabular form.
4. Have students make graphs comparing how much money the various energy-efficient improvements would save.

#### Activity #6

**Title:** How Green Is Our Community?

**Format:** Group homework

**Time:** Several days

**Materials:** Community Assessment Grid, pen

**Procedure:**

1. Divide the class into five groups: Food Group, Energy Group, Transportation Group, Business & Industry Group, and Policy Group.

2. Explain that each group will assess the availability of green choices and resources in the community. (Define what community you have in mind. If you live in a small town, you may define the community to cover the whole county. If you live in a very large city, you may define the community to cover one district of the city.)
3. Pass out the Community Assessment Grid to each student. Explain that each group will fill in the grid for the green choices associated with that group. Groups should divide up responsibility for the cells of the grid.
4. On the day that everyone completes the assignment, ask each group to report what they have found. Groups may modify their grid ratings based on comments from other students.
5. Discuss the overall level of green options in your community, as indicated by the grid.

<b>Community Assessment Grid</b>					
	<b>Does your community have these green choices and resources?</b>	<b>None</b>	<b>A few</b>	<b>A fair amount</b>	<b>Many</b>
<b>Food Group</b>	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 run food-scrap recycling programs or city-provided compost bins				
	Community Supported Agriculture (CSAs) or organic home delivery programs				
<b>Energy Group</b>	Homes with solar panels or wind turbines				
	Businesses with solar panels or wind turbines				
	Alternative energy companies (solar panel companies, etc.)				

	Alternative energy producers (wind farms, etc.)				
	Buildings that are considered green buildings				
	Green power options through your utility company				
	Places that sell energy-saving appliances or devices				
<b>Transportation Group</b>	Residents who drive alternative fuel vehicles				
	City buses or city vehicles that run on alternative fuels				
	Alternative energy fueling stations				
	Reliable, accessible public transit systems				
	Pro-bicycle attributes (dedicated bicycle lanes, racks, etc.)				
	Public or private car-sharing programs				
	Streets designed for pedestrians (walking paths, sidewalks, trails)				
<b>Business &amp; Industry Group</b>	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 policies that recruit green industry or encourage green business development				

	City policies that reduce energy consumption or increase use of renewable energy sources				
<b>Policy Group</b>	City-supported local food initiatives				
	City-incentives for green buildings				
	City-supported green retrofitting of buildings				
	Nonprofit or community organizations involved in creating a local, green economy				
	Offices of sustainability or sustainable development				

Adapted from the Green-Collar Jobs Campaign, an Ella Baker Center Initiative ([www.ellabakercenter.org](http://www.ellabakercenter.org))

**Discussion Questions**

1. One speaker in the video says there are three kinds of green careers: (1) Those that will do what they've always done, but for green purposes; (2) those that will require new skills to serve green purposes; and (3) those that have always served green purposes. Consider some familiar occupational titles in business, science, transportation, personal service, education, and other fields. For each occupation, ask these questions: Can it (or does it already) serve green purposes? If so, which of the three types of green careers best describes it?
2. Consider a familiar place: school, a shopping center, or some other public space. What green practices could be adopted there to save energy or conserve resources? Why haven't these green practices been adopted already?
3. The video says that many green jobs cannot be exported to overseas workers. What are some examples of these jobs? What are some green jobs that can be exported?

**Homework Option**

Have each student choose a green occupation and research it using either O\*NET Online (<http://online.onetcenter.org>) or a print resource, such as JIST Publishing's *Progressive Careers* or the *Occupational Outlook Handbook*. Note that the occupation can be a traditional occupation that can serve a green purpose. Students should be sure to research growth, earnings, openings, job tasks, work environment, and the amount of education required. Have each student prepare a two-minute presentation to give to the class about the job they researched.

**Additional Materials on America's Jobs**

JIST Publishing offers a wide array of materials on America's jobs. For more information, please call 1-800-648-JIST or visit [www.jist.com](http://www.jist.com).