Green Design

Part of the *Green Careers* series

Study Guide

Appropriate for grades 9-12 and post-secondary,
as well as 7-8 with teacher guidance.

In this program, we'll explore the exciting race underway to design greener products of all sorts. You can work toward a green career as an architect, interior designer, industrial engineer, or product designer within a myriad of businesses. This is a contest that will reward those who can envision or help create the "greener mousetraps" of tomorrow.

Jobs profiled in this program include:
Architect, Interior Designer, Consultant, and Landscape Designer.

21 minutes

The Phoenix Learning Group, Inc.

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Learning Objectives

Following are some sample cross-curricular learning objectives for comprehension questions and activities. Students will be able to:

Science

- Determine the positive and negative effects green design has on the environment.
- Gather evidence to support the use of sustainable products when designing structures.

Careers/guidance

- Evaluate personal interests to determine if green careers are an area in which to pursue further education.
- Compare and contrast the skills and education required for a variety of green careers.
- Identify post-secondary programs that offer green careers and locate courses of study within the programs.
- Determine the appropriate high school courses to enroll in to prepare for a chosen green career.
- Predict the demand for green careers in the future, and develop a plan to experience and prepare for one of these careers prior to attending trade school or college.
- Elaborate on the importance of cooperative, interdisciplinary work in conjunction with green design.

Technology

- Conduct research utilizing a computer and the internet.
- Evaluate the benefit computers play in green design compared to traditional methods of design production.

Language Arts Literacy

- Write an essay based on information acquired from the film.

Questions

Architect

1. Why are green designed structures better for the environment and community than traditional methods?

2. How does the field of architecture positively impact the lives of people, as stated in the film?

3. Examine the image of the building adapted for sustainability and determine the obstacles one might face as a "green" architect in that situation.

4. List the many considerations to be made when designing an energy efficient structure.

5. How has green design changed since the advent of computers, and what are the benefits of utilizing the computer in the design process?

6. How will virtual design affect the types of positions available in the field of green design?

7. What skills are used to execute a functional design?

8. Who is involved in the team that creates the final design product?

Interior Designer

1. What is it meant by pre-consumer content and post-consumer content? How might this differ from traditional materials utilized in interior designs?

2. Explain the difference between commercial and residential interior design.

3. Compare interior design to interior decorating.

4. Why is certification or licensing suggested for this career?

5. What other types of positions are there related to the design field?

6. What types of courses and education would be beneficial as an entry point for this career?

Consultant

1. Describe the consultant's role in green building.

2. List the other professionals the consultant may work with on a project.

3. Defend the statement "You can start out doing one thing and I'll tell you, another door will open," as stated by the interviewee in this segment.

Landscape Designer

1. What are the types of jobs landscape architects do on project sites?

2. What knowledge do you need to become a landscape designer?

3. Contrast urban landscaping with rural or suburban landscaping.

4. How does green landscape design incorporate nature to help the environment?

5. List four skills one would need to be a successful landscape designer.

6. Why is it important for the people of the community to be involved in the "greening of the city?"

7. What qualities are companies looking for when hiring people in the design fields?

Sample Activities

- Identify the special types of materials utilized in sustainable building and explain how these materials qualify as being sustainable.

- Compile a simulated product library using resources that could be used in a green design project.

- Research the impact that the toxic materials used in carpets, mattresses, cleaners, and paint can have on the environment and humans. Find examples of alternatives for each.

- Write an essay supporting the concept of green design as a social issue, as stated in the film.

- Design a streetscape that incorporates the use of natural resources and sustainable materials.

- Select three green careers that are of interest to you and generate a chart identifying the pros and cons for each career. Consider working conditions/work environment, job availability, salary, skills required, level of education, and locations of programs that offer training in the chosen field.

- Research the programs (college or technical) that offer the training required for employment in the area of interest. Locate the course list for the program to get an idea of the classes that should be taken in high school in preparation for entering the program.

Related Links

http://www.bls.gov/audience/students.htm

Part of the Bureau of Labor Statistics website designed for teachers and students. It includes resources such as the latest statistics on employment, prices, and wages.

http://www.usgbc.org/

The U.S. Green Building Council home page.

http://www.nbm.org/index.html

Home page of the National Building Museum, which offers many resources relating to green design.

The complete *Green Careers* series includes:

Building Green	Clean Energy: Solar Power
Recycling	Environmental Justice
Water Management	Green Design
Sustainable Agriculture	Restoring the Land: Hazardous Waste Management