

Text Marking for Reading Comprehension

<p>Objectives</p> <p>Students will use text marking to recognize when an idea has been missed in reading.</p>	<p>Time frame to Complete</p> <p>45 minutes or break the lesson into two parts 20 minutes for the introduction 30 minutes for the activity</p>
<p>Standard(s) Addressed in Lesson</p>	<p>Read With Understanding</p>
<p>Benchmark(s) Addressed in Lesson</p>	<p>R.4.11; R.4.16</p>
<p>Materials</p> <ul style="list-style-type: none"> • “The Changing Face of Work” from http://thewclc.ca/edge/issue5/index.html • “Green Collar Jobs Overview” from http://www.greenforall.org/resources/green-collar-jobs-overview • “Build Your Career With a Starter Job” from http://www.thebeehive.org/jobs/career-coach/work-your-way/build-your-career-starter-job • Rogers, Sabine A. “Is Your Future Blowing in the Wind?” in <i>Green Career Journal</i>, Vol. 4 Issue 1, Jan/Feb 2009: pages 7 and 10. (Permission to use for educational purposes granted by author) 	
<p>Activities</p> <p><u>Step 1</u> “Explain” text marking and how it will benefit the students in their reading. (Strategy will help students interact with text and help identify when material is understood and not understood.) Write the symbols to be used on the board.</p> <p>√- I knew this before. ! – This is new for me ? – I’m not sure what this means.</p> <p><u>Step 2</u> “Model” for the students how to mark text by marking a simple reading. (This easy level reading passage will allow students to focus on the strategy not the text passage.) Article example: <i>The Changing Face of Work</i>. Demonstrate how to place appropriate markings in the margin of the reading as you read the article with the students. Explain that not everyone will mark text in the same manner depending on their understanding of the passage and the prior knowledge they have about the topic. (Overlays or sticky notes could be used if students are not able to write on the material.) Discuss what to do with the marks when finished reading. Areas marked with a! should be reviewed for understanding. Areas marked with a? should be clarified through discussion, further reading or research.</p> <p><u>Step 3</u> “Guide” the students in using text marking by marking the first three paragraphs of a new reading as a large group. Have the students follow along and mark their article as you demonstrate. Article example: <i>Green Collar Jobs Overview</i></p> <p><u>Step 4</u> Have the students then <u>apply</u> the new strategy working in pairs to mark the remainder of the text in the reading. <i>Students need to use this strategy multiple times so they begin to interact with text instead of just reading words. The articles being read should be at their instructional reading level and should be of value to the reader.</i></p>	

Assessment/Evidence

Marked text to demonstrate use and understanding of appropriate text marking. The text marking strategy is being taught to aid comprehension. Comprehension questions could be written to see if the strategy helped the students to understand the text.

Adaptations for Beginning Students

Have students read material at their instructional reading level. Teacher could do several sample readings and then have students work in small groups to mark text.

Sample article : "Build Your Career With a Starter Job"

Adaptations for Advanced Students

Have students read material at their instructional reading level. Have students mark the text individually and then answer comprehension questions.

Sample article: "Is Your Future Blowing in the Wind?"



The Changing Face of Work

<http://thewclc.ca/edge/issue5/index.html>

In this image, we are looking out the window of a car. Let's make the rearview mirror represent the past. It shows us where we have been. The blue sky will represent the future. It shows us where we are going. The dice represent luck. We all need a little good luck.

For many adults, going back to school was a difficult decision because the past brought memories of when we were in school as kids. Many of us did not do well in school and did not develop confidence in ourselves as learner. But despite problems with school, in the past, many brave adults have decided to return to adult literacy programs. Students say the single biggest reason for going back to school is to improve their skills in order to find work. This issue of The Learning Edge is about finding work.

Looking out the window of the car, we see the future. It's where we are going.

Students know that now, and in the future, most jobs will require more skills. All jobs are being changed by computer technology. When we look ten years into the future, we are told that most jobs will require some post-secondary education. Only a few available jobs will require less than a high school diploma.

Build Your Career with a Starter Job

<http://www.thebeehive.org/jobs/career-coach/work-your-way/build-your-career-starter-job>



A good way to start your career is with a starter job. Starter jobs can move you forward on your career path.

What is a starter job?

A starter job is a job in the same field or place as your career goal. At a starter job, you can work with or near people who have the job you want.

Here are some of the advantages of finding a starter job:

- **Build Skills**
You can increase your skills and knowledge. This will help you prepare for the career you want.
- **Build Contacts**
You can learn to connect with people who can help you move your career forward.
- **Build Experience**
You can use lots of different opportunities to build your experience. This will make you a much stronger job applicant in the future.

When should you look for a starter job?

If you know what career you're interested in, but don't have the experience, education, contacts, or skills to get the job you want, start looking for a starter job right away. Be patient – it takes time to work your way into the right job in your new field.

Green-Collar Jobs Overview

<http://www.greenforall.org/resources/green-collar-jobs-overview>

Green For All believes green-collar jobs are well-paid, career track jobs that contribute directly to preserving or enhancing environmental quality. If a job improves the environment, but doesn't provide a family-supporting wage or a career ladder to move low-income workers into higher-skilled occupations, it is not a green-collar job.

Here are some other key characteristics of green-collar jobs:

Green Collar Jobs Rebuild a Strong Middle Class

Green-collar jobs are good jobs. Like blue-collar jobs, green-collar jobs pay family wages and provide opportunities for advancement along a career track of increasing skills and wages. A job that does something for the planet, and little to nothing for the people or the economy, is not a green-collar job. The green economy cannot be built with solar sweat shops and Wal-Mart wind farms.

Green-Collar Jobs Provide Pathways Out of Poverty

Most green-collar jobs are middle-skill jobs requiring more education than high school, but less than a four-year degree -- and are well within reach for lower-skilled and low-income workers as long as they have access to effective training programs and appropriate supports. We must ensure that all green-collar jobs strategies provide opportunities for low-income people to take the first step on a pathway from poverty to economic self-sufficiency.

Green-Collar Jobs Require Some New Skills (and some new thinking about old skills)

The green economy demands workers with new skill sets. Some green collar jobs -- say renewable energy technicians -- are brand new. But even more are existing jobs that are being transformed as industries transition to a clean energy economy: computer control operators who can cut steel for wind towers as well as for submarines; or mechanics who can fix an electric engine as well as an internal combustion engine. We need identify the specific skills the green economy demands. Then we need to invest in creating new training programs and retooling existing training programs to meet the demand.

Green-Collar Jobs Tend To Be Local Jobs

Much of the work we have to do to green our economy involves transforming the places that we live and work and the way we get around. These jobs are difficult or impossible to offshore. For instance, you can't pick up a house, send it to China to have solar panels installed, and have it shipped back. In addition, one of the major sources of manufacturing jobs -- a sector that has been extensively off-shored -- is components parts for wind towers and turbines. Because of their size and related high transportation costs, they are most cost-effectively produced as near as possible to wind-farm sites. Cities and communities should begin thinking now about ways their green strategies can also create local jobs.

A Green-Collar Job Strengthens Urban and Rural Communities

Urban and rural America have both been negatively impacted over the past decades by a failure to invest in their growth -- green-collar jobs provide an opportunity to reclaim these areas for the benefit of local residents. From new transit spending and energy audits in inner cities to windmills and biomass in our nation's heartland, green jobs mean a reinvestment in the community's hardest hit in recent decades.

And By the Way ... Green-Collar Jobs Save Planet Earth

This may be obvious. The "green" in green-collar is about preserving and enhancing environmental quality. Green-collar jobs are in the growing industries that are helping us kick the oil habit, curb greenhouse-gas emissions, eliminate toxins, and protect natural systems.

Green-collar workers are installing solar panels, retrofitting buildings to make them more efficient, constructing transit lines, refining waste oil into biodiesel, erecting wind farms, repairing hybrid cars, building green rooftops, planting trees, and so much more. And they are doing it today. There are already many green-collar jobs in America. But there could be so many more if we focus our economic strategies on growing a green economy.

Is Your Future Blowing in the Wind?

Sabine A. Rogers

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Green Career Journal

The power of the wind is much more than what can be seen by looking at the leaves on a tree as they rustle in the breeze. The wind's power has the ability to level structures; move a semi from the road; or even rip that tree, whose leaves you were watching rustle, right out of the ground. It can also be controlled into a clean, sustainable, and affordable source of energy to meet a portion of the demands of electric use in the United States today and into the future.

The History of Wind and its Emerging Power

The concept of harnessing the wind and utilizing its energy has been around for thousands of years. Sailboats and ships led the way using wind for propulsion. Shortly after, architects utilized the wind for ventilation in early buildings. The notion of utilizing the wind to produce mechanical power, with windmills, arrived on the scene in the 7th century.

These windmills were used for grinding grain and operating irrigation pumps. It was in the late 19th century that the first windmill used to produce electricity was built. This modern equivalent of the windmill is better known as the wind turbine. Nineteen fifty-four marks the year in which the first wind turbine connected to a utility grid was operated.

The wind turbine converts the wind's kinetic energy into mechanical energy which is then directly converted to electricity. The electricity then flows through underground lines to a collection point or further on to a substation for widespread distribution.

Although the design of the wind turbine advanced dramatically in the 20th century, this era also led to the age of oil and industrialization. Network power expanded into what were once rural areas of the country and the use of wind energy declined. Since this time the popularity of wind energy has fluctuated with the price of fossil fuels. As the price of fuel fell after World War II so did interest in wind energy. In turn, attention to wind energy increased when the oil embargoes of the 1970s sent oil prices soaring.

The research and development since the 70s has advanced wind turbine technology ideas and brought about new ways to convert wind energy into usable power. Christine Real de Azua, with the American Wind Energy Association (AWEA), says a US Department of Energy study shows that "wind could provide 20% of the United States electricity by 2030" and that "no technological breakthroughs are needed [to reach that percentage] nor is that a ceiling".

Wind's Power on the Economy

During the last year of economic uncertainty, wind energy has remained a strong force in driving the economy without causing pollution, producing hazardous waste, or reducing our natural resources. With ongoing technological advances and refinements, wind will have the ability to compete economically with coal and oil. It will do so not only with the benefit of being environmentally friendly, but with the promise of sustainable jobs.

Currently the wind industry of the United States directly employs over 2,000 people. In addition approximately 48,000 are employed indirectly through products and services required to build, transport, install, and operate turbines. AWEA recently reported that the manufacturing base for wind energy is expanding quickly, thus "creating jobs and fostering investment and growth even in a difficult financial climate." Greater investment in wind generated energy will yield more jobs in an array of disciplines, including manufacturing and engineering, environmental and consulting services, as well as marketing.

Where the Jobs Are...

Consider the end result of clean wind energy, and it can be said that every job from production of individual turbine parts to operation and maintenance of wind projects is green. Combine that with the Department of Energy's report, 20% Wind Energy by 2030, and the result is over 500,000 green jobs being created and supported by the wind industry over the next 21 years.

"The wind industry is a very diversified industry in terms of it depending upon a lot of different skill sets, a lot of areas of expertise," says Dr. Jonathan Miles of James Madison University's College of Integrated Science and Technology. "Although it might be the temptation for people who aren't familiar with the industry to assume that it picks up engineers and science majors and such," Miles continues, "as you dig into the industry you can understand how important it is to attract attorneys into the field, and people with business backgrounds, and people who understand economics, and people who understand geography and land use."

The division of the wind industry that is likely to provide the most opportunities is in the manufacturing, installation and operation of wind turbines. The manufacturing plants that produce blades, towers, and gearboxes will hire engineers for positions as plant managers, manufacturing engineers, and quality assurance staff. The same plants will need people with computer science, aerodynamics, atmospheric science, and math degrees for research and development positions. This division of the wind industry will also provide service sector jobs to people trained as technicians and in operations maintenance for positions require dafter the installation of the produced turbines. Real de Azua says the current demand for wind technicians is "tremendous".

Prior to turbine installation, resource and environmental assessments must be made. Site selection for wind turbines is based on the availability of wind or wind resource at the particular site. People with expertise in atmospheric science or meteorology will be needed to analyze wind patterns, predict the output of energy a particular location will produce, and from that provide technical information to sustain site choice selections. Once a site is selected for its wind resource, it must then be further studied for the impact the wind power facility may have on the surrounding environment. The effect of the turbines on drinking water, vegetation and wildlife will need to be determined by people with degrees in biology or environmental science.

Beyond the manufacturing, installation and operation of wind turbines is the need for financial, administrative and communications support for current and future wind projects. From business development and land acquisitions to project management and public policy, this division of the wind industry will call for individuals with a wide range of expertise. Real estate, finance, marketing and legal are some of the main degrees required for jobs in this sector.

Opportunities lie outside the industry as well. As wind power continues to define itself on the energy stage the need for more individuals with the ability to educate the next generation of wind experts becomes more apparent. AWEA and the Department of Energy have individually created two programs to bring wind energy education to the forefront, and universities in 21 states currently offer academic programs and technical training for those interested in wind energy. As the path to a more sustainable future continues these programs will undoubtedly grow as will the need for individuals to run them.

Getting Your Foot in the Door

You have a chance of landing a job in the wind industry if you have earned, or are on your way to earning one of the degrees mentioned above. "People need to think about what they are interested in and think about how that might be useful to a wind energy company or be applied within a huge range of possible careers" Real de Azua adds. "Chances are you are going to be able to find a job [in the wind industry] that will fit some of your interests and qualifications".

A good place to start searching for information about the wind energy industry is on AWEA's website, www.awea.org. Here you can find a host of information to assist you on your search including a job board, wind web tutorial, and information guide.

Careersinwind.com is AWEA's job search web site for wind energy opportunities. The site includes; job announcements, a list of upcoming wind energy workshops put on by AWEA, and will soon include information for career changers on how they can transfer their skills and expertise to the wind industry. Real de Azua says AWEA's job board "only lists some of the jobs being offered" and suggests "that people look at the sites of some of the individual companies". A list of AWEA member companies is available on the web site.

If the wind energy industry is where you decide to make your career, knowing all you can will benefit you. Industry insiders suggest learning the basics of the industry and the lingo (it's called a wind turbine, not a windmill) will assist you when you are asked to come in for an interview or simply find yourself in a conversation with someone in the industry. The Wind Web Tutorial (<http://www.awea.org/faq>) along with the news link on the AWEA web site can get you started with some basic information and help keep you informed of the latest, most accurate news on wind energy.

As with any job search having prior experience on your resume is beneficial. Mary McCann-Gates, with Clipper Windpower Inc. a company engaged in wind energy technology, turbine manufacturing, and wind project development, says that "related experience [through] previous work, research, internship or education is a plus". The Wind Energy Information Guide (http://www.awea.org/resources/resource_library) provides contact information and websites for additional resources including a list of universities and research institutes that have programs and workshops dedicated to wind energy. "Get involved in undergraduate research, or projects or as interns – it is very valuable and highly valued as well," says Miles. For current students or soon to be college graduates an internship may be the perfect way to attain that experience and demonstrate how you can be an asset. Many of the companies listed on AWEA's member page offer student intern programs.

A "stand out" for Clipper Windpower adds McCann-Gates is "creating a resume that exudes enthusiasm for being part of the growing renewable energy sector, for making a difference, for making the world a better place, and for being a part of our company and the wind industry."

Who You Know Can Be as Beneficial as What You Know

In addition to reading up on wind power and taking courses in renewable energy, attending workshops, fairs and national conferences can provide you with excellent information and the added bonus of rubbing elbows with the right people.

The WINDPOWER Conference & Exhibition is an excellent example. With over 700 exhibitors, more than 300 speakers and moderators, 150 poster presentations, and 50 sessions on important topics in wind energy, this conference and exhibition series (ongoing annually since 1999) is one of the best places to learn the latest in industry developments. Educational opportunities through various pre-conference seminars and a job fair that includes recruiters from some of the nation's top wind energy related companies help to make this the largest national wind event. WINDPOWER 2009 will be held in Chicago this May.

AWEA's web site includes a calendar of events with information on the larger conferences as well as upcoming AWEA workshops. If you prefer to start small there are several state wind energy fairs (Michigan, New York, Iowa and Minnesota) as well as regional fairs like the Midwest Renewable Energy Fair that are put on annually. Information on these fairs as well as workshops local to you can be found on www.homepower.com, through the resources link.

“Beyond all of that,” Miles adds, “it is a really good education and not too time intensive to get to know what your local communities and regions are doing. For instance there is a lot of education to be had by going to town meetings or meetings of boards of supervisors and planning officials to really get a better sense of how communities and various stakeholders are addressing wind issues.” Check your local city or county web sites for dates and times of these meetings.

The Future of Wind Energy Jobs

A clear priority for renewable energy development with the new administration along with the recent extension of the Production Tax Credit (PTC) for wind and other renewable energy will yield the opportunity for “tremendous growth potential in the long term”, says Real de Azua. Add to that the prospect of offshore wind energy projects (currently in the development process for the United States) and it appears that wind power will take a leading role in our energy future.

So if you have not already gotten started polishing up your resume, attending conferences or workshops, and sifting through the mass amount of information on the internet – now is the time to do it! As we move forward with a President elect who has talked about a new energy future by investing in sustainable energy and creating green jobs, those with clear expertise and interest in the wind industry will have the edge.

