

# Be Innovative!

## Educating Future Farmers: The DewPoint 6210



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### Executive Summary

The objective of this media plan is to develop educational publicity for the innovative DewPoint 6210, a custom baling machine using steam dew simulation, which was developed locally, and is currently manufactured and sold from the Iron County business, Staheli West. It is proposed that we, the agricultural communications committee of the Canyon View FFA chapter, educate its members, as well as farmers and future farmers across the country, about this new and innovative technology, introduce them to farmer and inventor, Dave Staheli, and share his amazing story. We feel that this new technology is a “game changer” for the agriculture industry, and educating youth, future farmers and current farmers about its benefits to them, and to the industry itself, will literally change lives.

We will work with you, the Canyon View FFA chapter, state FFA advisors, employees of the national FFA organization, and the developers of this product, Staheli West, the parent company, Dave Staheli, creator and CEO, and Justin McArthur, marketing director, in the development and implementation of this project.

Our media focus will be the development of an educational video, which will include Dave Staheli’s invention story and focus on educating viewers about the innovative DewPoint 6210. We also plan to create hands-on educational resources to be used for educational purposes in agriculture classrooms nationwide. In addition, educational resources, informational flyers, and a copy of the short video, can be made available in an educational booth at the national FFA convention. These packets will also be made available to Staheli West for use at various trade shows throughout the country to assist them in educating farmers and others that may be interested in the invention and technology. Finally, we will create an educational webpage attached to the existing Staheli West site that will feature the video and educational materials.

## Introduction and Overview

Hay farmers know that leaves are the main source of nutrients in hay. Without leaves, dairy cows and other livestock receive little or no benefit from hay. Natural dew has usually been the source of that necessary moisture. Because of the need for dew, hay farmers worldwide, are limited. Although climates differ, all farmers must wait for just the right conditions. Some have to wait for enough moisture, and others must wait for the sun to come up and evaporate off some of the dew.

Local farmer Dave Staheli grew up farming like his father, and after years of having to deal with moisture as a limiting factor, he was determined to find a better way to bale hay. Dave experimented with a few methods of getting moisture into hay, including spraying water onto the cut hay before it was baled. However, nothing he tried was successful. Inspiration came from the most unusual place, a taco restaurant in Delta, Utah. While on his knees, seeking inspiration one day, Dave recalled a time when he had stopped for lunch and saw the effect steam had on cold, stale tortillas from a steam oven, and the idea was born. Later that summer, on a hot, dry afternoon, he went out to the field and picked up some hay from the windrow. It was completely sun-dried, and therefore not nearly ready to be baled. He filled an old cardboard box with this crunchy hay and took it into his house. Dave fired up his wife's pressure cooker, and ran a hose into his box full of hay. He anxiously waited for the pressure cooker to heat up, and then proceeded to fill the box with steam, blowing the hay leaves all over the kitchen as a result. The hay that was once overly dry and brittle was now in the perfect condition to be baled. His imagination took off.

Now Dave needed information. He began reading everything he could find about boilers. He contacted boiler manufacturers all over the country and finally found one in Illinois that

would help. They built him a custom, low-pressure boiler. Using an old trailer, a generator, and his new boiler, Dave began steaming hay on a large scale. The first few attempts were complete failures. He discovered that the steam got into the hay fibers quickly, but it also evaporated quickly. His idea to steam the hay with one tractor, and then bale with another tractor right behind, did not work. Finally, Dave, and Brent, the owner of the farm, went out to a remote field. One of them drove the baler, the other shot steam onto the hay as it was fed into the baler. The bales came out nearly perfect, and the DewPoint was born.

The DewPoint 6210 is now a 12-foot tall, 20-foot long, 30,000-pound mammoth of agricultural innovation. It consists of three main sections. First, the five million BTU diesel-fire burner that heats water from the 1,000 gallons of onboard tanks. The water is heated in the second section, the boiler. Within the boiler, water is turned to steam and injected, via four manifolds, into the rows of hay as they are being baled.



**Figure 1: Dave Staheli and the DewPoint 6210**

The final section of the machine is the diesel generator to power the electrical, computer, and sensor systems.

This success story is inspirational, yet typical among farmers looking for a better way to farm. This technology literally changes lives during hay season. Mr. Staheli has found a way to fool Mother Nature. Our media team feels that his story needs to be told. We feel that by educating farmers and future farmers through an educational video and hands-on educational materials about this innovative practice, we can inspire creative thinking and problem solving, and inspire others to think outside the box, changing agriculture for the better now and in the future.

## Audience

FFA is a dynamic youth organization that is a part of agricultural education programs at middle and high schools around the country. Today, student members are engaged in a wide range of curriculum and FFA activities, leading to over 300 career opportunities in agriculture. More than 11,000 FFA advisors and agriculture teachers deliver an integrated model of agricultural education, providing students with innovative and leading-edge curriculum, enabling them to grow into competent leaders. FFA classroom activities include math and science, as well as hands-on work experience and the development of life skills, helping members discover career paths and realize success. Agricultural education prepares students for successful careers and a lifetime of informed choices in the global agriculture, food, fiber, and natural resources system. FFA is structured on three levels: local, state, and national.

### Local FFA Chapters

The Iron County area hosts three FFA chapters. The Canyon View FFA chapter currently has 45 members. Of those, 12 members live or work on farms. In addition to registered FFA members, 175 students are enrolled in agriculture classes at Canyon View. The Cedar FFA chapter currently has 47 members, with 20 members living or working on farms and 140 enrolled in agriculture-related classes. The Parowan FFA chapter has 73 members, with 11 members living or working on farms, and 73 enrolled in related classes.

### Utah FFA Organization

The Utah FFA organization currently has 79 chapters with a total of 6012 members. The data reported does not mention the number of students enrolled in agriculture classes throughout the state. An estimated 1,742 members, advisors, and guests attended the 2013-2014 state convention.

### National FFA Organization

The National FFA organization reports 7,665 chapters with 610,240 members enrolled and participating in agricultural programs in all 50 states, Puerto Rico and U.S. Virgin Islands. The National FFA organization reports that 62,988 members, FFA advisors, and FFA supporters attended the 2013-2014 National FFA convention. According to a recent FFA magazine readership study, 81% of students are interested in learning about new technology. At the National Convention and Expo, the exhibit halls utilize more than 225,000 net square feet, attracting more than 400 exhibits, vendors, and educational booths.

### Current and Future Hay Farmers

Hay production in the United States exceeds 119 million tons per year. Over 55 million acres are harvested each year, with net sales of over 6.7 billion dollars. Alfalfa is the primary hay crop. It is produced mainly for domestic consumption, although there is a growing export market. Hay farms across the country, but especially in dry, western climates deal with moisture as a limiting factor, and must bale hay only when Mother Nature provides acceptable natural dew, often in early morning hours. The innovative technology of the DewPoint machine makes baling possible for farmers anytime during the day, and through the onboard computer system, moisture can be controlled creating consistent bales every time.



**Figure 2: Farmers looking at the workings of the DewPoint 6210**

### Strategic Plan

In the beginning, an important part of this media plan was to learn more about the new DewPoint 6210 technology, the inventor, Dave Staheli, and his company, Staheli West. Our team scheduled several visits with Dave Staheli and Justin McArthur, toured the facility, and enjoyed being educated on the invention process, workings of the machine, manufacturing and benefits of this innovative product. Several emails were exchanged in the process, and additional information on the invention and company was obtained.

After the initial development of the product, Dave and his employees felt that education would always be a driving factor in their company. Being a completely new and unique technology, Dave knew that education would have to play an important role in their product development, employee development, sales and marketing, service and support. Getting the information out to farmers who are completely unaware of what the product can do for them continues to be a daunting task.

In the beginning, most buyers of the machines were hesitant and seemed to wait to hear how the product worked for others before purchasing their own. Word of mouth advertising seemed to work best at first, as those happy with the product testified of its benefits.

After gathering and discussing this information, meetings were held with the Canyon View FFA chapter. It was decided that we would assist Staheli West in the education of local youth, specifically students enrolled in FFA and agricultural programs, and future and current farmers around the country. Many youth work on their family or local farms. Their knowledge of these types of innovative techniques could greatly influence the way they think about the products they buy in the future, or even encourage them to invent innovative agricultural products, in turn, bettering life for future farmers around the globe.



The three main objectives of our media plan will be first, the development of an educational curriculum packet that will include a 10-min DVD featuring Dave Staheli's invention story, a description of the machine itself, how it works, and how it changes lives and the hay production industry. The packet will also include educational, hands-on activities to be used to inspire creative thinking and problem solving. Success of this educational project will be measured based on survey data collected upon completion of the curriculum. We feel that our goal will be met if 75% of those surveyed found the curriculum informative and beneficial, and left them inspired to think outside the box when problem solving in the future.

Our second objective will be distributing these packets and information to youth and interested farmers across the country. Initially, we plan to send 81 curriculum packets to FFA classrooms throughout the state of Utah. It is our goal to have at least 50 of the 81 agricultural education teachers use the curriculum and return positive surveys upon completion, with a goal of 3500 completed student surveys. One hundred additional packets will be given to Staheli West to distribute at their seven scheduled trade shows to all interested farmers and future farmers. We will encourage their employees to keep track of packets distributed, and we will track the online survey data, hoping to see positive surveys from at least 50% of those distributed.

Our final objective will be the creation of an educational webpage to be added to the existing Staheli West site. This page will help make the video and educational information available nationally to those interested in learning more about this innovative technology. It is our goal to increase hits on the Staheli West site by 25% and reach over one hundred visitors to the educational site in the first year.

Our plan to meet these objectives will move forward as follows:

Obtain State and National Approval

In our proposal to develop educational materials, it is essential that we seek and obtain approval from the State Office of Education and State FFA Advisors before beginning the project. The educational materials will align with the curriculum standards for Educational Systems and Technology. We will seek to keep the video and materials educational and focused on the invention and innovation of the technology, with the intent to encourage youth to invent and develop ways to make the production of agriculture more efficient in the future.

#### Involving the Canyon View FFA Chapter

The next step in this media plan is to involve the Canyon View FFA chapter as much as possible in the design and development of the educational video and materials, and in the distribution of materials through mail and at various trade shows.

#### A Partnership With Staheli West Co.

A good working relationship with Staheli West is essential to the success of this plan. We plan to feature the inventor, Dave Staheli, in the video telling his personal story. Access to the manufacturing facility and product are also important in the production of the video and educational materials. The expertise of marketing director, Justin McArthur, is also important to our ultimate goal. Mr. McArthur has produced several promotional videos, and has access to all invention information and current video clips regarding the machine. He also organizes and schedules all trade shows. We plan to work closely with him in the creation of the video, and in preparing the educational information for use at trade shows.

#### Educational Video

It is our intention to feature Dave Staheli's story of inventing the DewPoint 6210 first and foremost in the video. His story is inspirational and yet common among many farmers looking for a better way to farm. The story behind Staheli West is also inspiring, and a story worth

telling. The 10 minute video will then focus on the manufacturing and workings of the technology itself, and conclude with testimonials of how the product has changed farming. Finally, we hope that it will leave the viewer inspired, to perhaps look for ways to improve agricultural production in the future.

The video will be sent along with other educational materials to schools statewide, and placed in FFA student packets at state FFA contests and conventions. The video will be offered to Staheli West to use in vendor booths and at trade shows, and will be posted for view on the educational page of their existing website as well.

#### Printed Flyer

The creation of a printed flyer will serve multiple purposes. First and foremost, the flyer will provide essential information in a take-home format, about the history behind the invention of the innovative DewPont 6210, and provide information about the product itself and how it has changed the hay industry and lifestyle of farmers and ranchers. Finally, it will serve as a tool for encouraging youth to learn more about innovative technologies that affect the farming industry and think outside the box in their own innovative thinking and problem solving.

#### Development of Educational Web Page

The intent of creating a special webpage attached to the existing Staheli West site is to house the educational video, informative flyer, and educational resources so that the information can be reached by link. The links will be listed on the printed flyers and all educational resources. It will also serve as a way to reach future farmers and agriculturalists outside of the state of Utah. The information could be advertised at trade shows, and links provided for use in agricultural classrooms globally. In addition, visitors to the site can have access to the information at any time.

### Electronic Flyer and Other Social Media Outlets

The flyer discussed above will also be created in digital format to be distributed through the social media outlets Facebook, Twitter, Instagram and Google Plus. The flyer can easily be posted on the Facebook pages of individual chapters, and emailed to FFA advisors, making them aware of the project, technology, and the resources available. The purpose of the electronic flyer will be to share the story of the DewPoint 6210, to promote the educational project, and finally, to serve as a promotional tool to link interested youth to the online educational resources.

### Trade Shows and Convention Booths

Staheli West has found great success in promoting their product at trade shows around the country. Trade shows provide sales employees direct contact with prospective buyers. They are able to answer questions, share success stories, and put valuable information in the hands of interested farmers. Many trade shows are attended by families, and adding a younger element to the existing show protocol by targeting future farmers and showing their connection and desire for educating future generations can have a positive effect for both Staheli West and these future farmers. Copies of the educational DVD and classroom resources can be made available for Staheli West to use at these shows.

### School Visits

In-person school visits by members of the Canyon View FFA or company members are an additional resource that can be made available upon request. Face-to-face contact is a great way for Staheli West to get involved in the schools, and for students to get to know the innovative product and its creators firsthand. Dave Staheli's story is both motivational and educational, but when told in his words, by his employees, it is powerful. This would be a great opportunity for any school, but realizing the time, and investment involved, the communications

committee feels that this is a limited resource, and the educational video and materials are the best way to both communicate and promote the technology.

### Educational Resources

The following items will be included in resource packets sent to each high school across the state of Utah, given to Staheli West, and posted electronically on the Staheli West webpage.

- **Educational Video:** The 10 minute educational video will feature Dave Staheli's story, a tour of the building, an overview of the machine, and conclude with testimonials of how the product has changed farming.
- **Informational Flyer:** The flyer will provide essential information in a take-home format about the invention of the innovative DewPont 6210, and provide information about the actual process of baling hay using the DewPoint machine.
- **Invention and Problem Solving Curriculum Activities:** Several core-aligned, hands-on activities will accompany the video and information about the technology, to encourage students to think outside the box, and problem-solve with the provided scenarios.

After the initial development of the educational video and various resources, the materials will be printed, the DVDs copied, and packets assembled for distribution. In advance of the packets, an email will be sent to all FFA advisors informing them of the program and forthcoming packets. The packets will be sent to high schools statewide. Staheli West will be given several copies of the materials, as well, to distribute at trade shows, and will be encouraged to play a role as a sponsor in the FFA state, regional, and national contests and conventions.

## Time Line

- July 12, 2015: Meet with Canyon View FFA chapter
- July 15, 2015: Meet with Justin McArthur and Dave Staheli, tour building
- July 19, 2015: Begin development of media plan
- July 19 – October 9, 2015: Communicate through email with Staheli West
- July 26, 2015: Make contact with State Office and State FFA advisors
- August 10, 2015: Present plan to Canyon View FFA Chapter
- August 11, 2015: Present plan to Canyon View school administration
- August 18, 2015: Begin development of flyers and school curriculum
- August 25, 2015: Pull together a team for educational video planning
- August 25, 2015: Schedule video filming session with Staheli West and Dave Staheli
- September 10, 2015: Film educational video at Staheli West
- October 1, 2015: Complete editing of video
- October 1, 2015: Complete flyers and school resource materials
- October 27, 2015: Present finished materials and media plan to FFA chapter
- January 5, 2016: Launch educational webpage and social media campaign
- January 5, 2016: Send materials for printing and copy DVDs
- January 17, 2016: Send materials to Staheli West for distribution
- January 25, 2016: Assemble and address educational packets
- February 6, 2016: Distribute educational packets to schools
- February 26, 2016: Schedule vendor booths at FFA conventions
- February 2016 – May 2017: Attend trade shows, school visits, and collect survey data
- June 2017: Meet with Canyon FFA Chapter and Staheli West for a final evaluation

## Budget

Use	Materials	Quantity	Cost per Unit	Total Cost
<b>DVD Production</b>				
	DVDs	1000	.50	500.00
	Burn Fee	1000	.50	500.00
<b>Vendor/Trade Shows</b>	Booth Fee	7	1000	7000.00
<b>School Resources</b>	Colored Flyers	1000	.50	500.00
	School Resource Materials	1000	1.00	1000.00
	Envelopes	250	.20	50.00
	Postage	250	.49	122.50
<b>Total</b>				<b>9572.50</b>

The bulk of the budget will be spent on the production of the educational DVD and in the printing and distribution of printed flyers and educational resources. Additional expenses could be incurred with renting booth space, but it is assumed at this point, that Staheli West will cover the cost of FFA events and trade shows as a gift in kind, and plan to bring our materials to events that have been previously scheduled and paid for by the business.

### Evaluation

Our media plan will be evaluated based on a teacher survey included in the educational materials packet, an online student survey, available upon completion of the curriculum, and finally a survey and face-to-face interview with members of the Staheli West team. A self-addressed stamped envelope will be included in each teacher packet to help ensure the return of the surveys, and instructors will be encouraged to have students fill out the online survey before completing the curriculum. Survey data will be collected and evaluated as it becomes available throughout the year. If problems are found, changes may have to be made to the curriculum before the project's completion. Upon completion of the project in May 2017, final survey data will be collected and evaluated for its effectiveness overall, based on the initial objectives of fifty of the eighty-one classrooms participating and receiving 3500 positive online surveys.

In addition to the information collected from the surveys, Staheli West employees will be asked to keep track of DVDs and information distributed out at the various trade shows throughout the year. This information will be compared to the survey data and data collected from the number of website visits. We hope then to see an increase of hits on the Staheli West website of 25% and track more than 100 visitors to the new educational page in the first year.

We plan to visit again with you, the Canyon View FFA chapter, Dave Staheli and Justin McArthur in early summer after the 2016 – 2017 school year to review the data and discuss the plan overall. At that point, we will look at survey data and receive feedback from both Staheli West and the chapter pertaining to the effectiveness of our project. If effective, this is a project that we expect the Canyon View FFA chapter will continue to participate in. In addition, we hope to gain the support of Staheli West for further service learning and communications work.



### Conclusion

*Every so often, something comes along that completely changes the game.  
Staheli West*

The mission statement of Staheli West has been our motto throughout the months that we have worked to create this media plan. When farmer and former FFA member, Dave Staheli, invented the first DewPoint, his intention was to make his life easier. He had no idea how far it would actually take him and how it would change lives. After several years in the business, he realized that his invention changed the farming game. Not only did it make life easier, it made life more productive, more fulfilling. It gave farmers time with their families, a concept and idea that has always been important to Dave.

It is our hope that this project will be a game changer for others, as well. We feel that by educating today's future farmers about this innovative agricultural practice, we can change the way they think about their farming practices, about problem solving, about not settling for things the way they have always been done, and can work to change the game for themselves and others.

As we have met with Dave Staheli and his team, we have been inspired by his great story, and have been excited to share it with many others. We are so fortunate to have his business and invention in our community. Their willingness to help us in this project, and their desire to help educate the youth has been amazing.

We hope that this media plan and educational project will not only educate the youth in our state about this innovative practice, but that it will ultimately encourage them to think for themselves, problem-solve, exhibit creativity and work to make the world, even the world outside of farming and agriculture, a better place to live.

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Appendix A: Promotional Video Outline

**I. Introduction:**

**A. Dave Staheli's Invention Story**

1. Stan's Story: The Learning Process
2. Dave's Ideas: Trials, Errors, and the Birth of a Machine

**II. The Invention:**

**A. The DewPoint 6210**

1. How Does It Work?
2. Tour of Manufacturing Facility

**B. Changing Agriculture, Changing Lives**

1. Unexpected Benefits
2. Family Ties

**III. Encourage Innovation in Today's Youth**

**A. A Message From Dave**

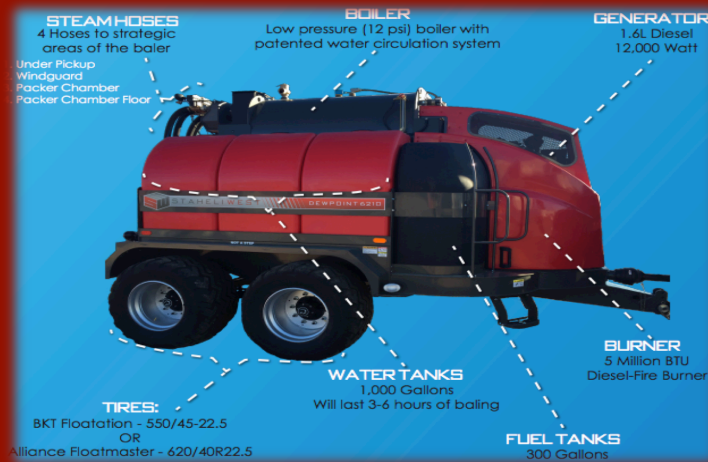
1. Former FFA member
2. Encourage and Challenge

Appendix B: Printed and Electronic Flyer

# DEWPOINT 6210: EDUCATING FUTURE FARMERS

Dave Staheli grew up farming like his dad, and after years of having to deal with moisture as a limiting factor, he was determined to find a better way to bale hay. Learn about his invention, the “Game Changing,” innovative DewPoint 6210

## A Better Way To Bale Hay



## Educational Resources

- Educational DVD
- Classroom Invention Materials
- Machine Overview
- Specs
- Problem Solve
- Create
- Learn
- Change Lives



## Appendix C: School Curriculum

**Be Innovative!**  
**Lesson Plan Created by Canyon View FFA Chapter****Materials:**

- Access to the Internet
- Invention of the DewPoint 6210 DVD

**Lesson**

**Objective:** Students will discuss the difference between inventions and discoveries and learn to recognize some of the many inventions all around them. They will then look at a few famous inventors and their inventions, including agricultural inventions, and discuss how each innovation changed the way people lived.

**Activity #1: INVENTION OR DISCOVERY?**

1. Write the following words on the board: telephone, fire, toothpaste, aspirin, electricity, wheel, gold. Ask your class to choose which of these are inventions. (telephone, toothpaste, aspirin, wheel) Ask them why the other items on the list are not inventions. (They're found in nature; people didn't create them.) Which of these items might be considered discoveries? (fire, electricity, gold) Why? (They had already existed in nature when someone discovered them for the first time.)
2. On the board, write: "An invention is ..." and ask the class to brainstorm answers. For example, an invention is: something new, something created by a person, something that people use. When this list is complete, ask them to develop a definition of invention. (The Discovery School site below gives the following definition: "Invention is the creation of a new device, process, or product." The Merriam-Webster Dictionary defines invention as: "an original device or process.")
3. Ask students to name inventions they can see in the classroom. For each invention, ask them to describe what the invention is used for. As they brainstorm, keep a list on the board. If they point out things that are not inventions, ask them to return to the definition.
4. Write the following names on the board: Alexander Graham Bell, Thomas Alva Edison, Henry Ford, Orville and Wilbur Wright. Tell students that these are some of the most famous inventors. Ask students if they know what each of them invented and write the invention next to the name.
  - Alexander Graham Bell: Telephone
  - Henry Ford: Assembly line and the Model T (the first popular car to be sold)
  - Wright brothers: Airplane
  - Thomas Alva Edison: Light bulb and phonograph
  - Eli Whitney: Cotton gin
5. Divide students into five groups, each assigned to one of the inventors above. Ask them to answer the following questions. They may use the websites below to help them research.

- How does this invention help people?
  - How do you think this invention changed the way people live?
  - What kinds of things did this person need to know in order to create his invention?
  - Would you consider this a successful invention? Why or why not?
6. Bring the class together and have each group read their answers. What makes all these inventions important?

**Helpful Websites:****Henry Ford**[www.cbc.ca/kids/](http://www.cbc.ca/kids/)**Eli Whitney**<http://www.eliwhitney.org/ew.htm>**Thomas Alva Edison**[www.nps.gov/edis/big-three.htm](http://www.nps.gov/edis/big-three.htm)**Orville and Wilbur Wright**[http://www.firstflight.org/shrine/wright\\_brothers.cfm](http://www.firstflight.org/shrine/wright_brothers.cfm)**Activity #2: 21<sup>st</sup> CENTURY INVENTIONS**

Groups will focus on innovations in the following fields: communication, transportation, medicine, and agriculture. They'll choose important inventions in that field and look at how these inventions have changed the way we live. They will consider how our world may change in this new century and what changes may require new inventions. Finally, they'll imagine new inventions for the future.

1. Divide the class into four groups and assign each group one topic: communication, transportation, medicine, and agriculture. Tell students they will be looking at important inventions in each area, then imagining inventions for this new century.
2. Each group should use the related websites below and the attached reading material to complete their assignment. First, they should review the inventions featured in the websites. Then have them choose five important or interesting inventions in that area. For each invention, the group should write the answers to the following questions.
  - In what ways do you think our world will change in this new century?
  - How does it change the way we live? (How does it help people make their lives better, easier, healthier, or more enjoyable?)

**Helpful Websites:***Communication***The Evolution of Communication**<http://library.thinkquest.org/26451/?tqskip1=1&tqtime=0613>

**Zoom Inventors and Inventions: Communication**

[www.enchantedlearning.com/inventors/communication.shtml](http://www.enchantedlearning.com/inventors/communication.shtml)

*Transportation***Zoom Inventors and Inventions: Transportation**

[www.enchantedlearning.com/inventors/transportation.shtml](http://www.enchantedlearning.com/inventors/transportation.shtml)

**Technology in Motion**

<http://library.thinkquest.org/C006235/?tqskip1=1&tqtime=0613>

*Medicine***Zoom Inventors and Inventions: Medicine**

[www.enchantedlearning.com/inventors/medicine.shtml](http://www.enchantedlearning.com/inventors/medicine.shtml)

**Medicine Through Time: The Modern World**

[www.bbc.co.uk/education/medicine/nonint/menus/modtmenu.shtml](http://www.bbc.co.uk/education/medicine/nonint/menus/modtmenu.shtml)

*Agriculture***Ten Agricultural Inventions that Changes the Face of Farming in America**

<http://www.farmcollector.com/equipment/ten-agricultural-inventions-in-farming-history.aspx>

**Activity #3: PRACTICING INVENTIVE THINKING**

Solving a class or world problem and creating a possible invention will help students learn the invention process and make it easier for them to work on their own invention projects later.

Before your students begin to find their own problems and create unique inventions or innovations to solve them, you can assist them by taking them through some of the steps as a group.

1. Finding the Problem: Have the class list problems in their own classroom or around them that need solving. Make a list:  
What is the most annoying problem...
 

at home?	at school?	at work?
at the airport?	on the road?	at the supermarket?
at the bank?	at the shopping center?	at ?
  
2. Perhaps your students never have a pencil ready, as it is either missing or broken when it is time to do an assignment. Select one problem for the class or small group to solve using the following steps: (You may want to list these on the board)
  - a. Find several problems. Select one to work on.
  
  - b. Analyze the situation.

- c. Think of many varied and unusual ways of solving the problem.
- d. List the possibilities. Be sure to allow even the silliest possible solution, as creative thinking must have a positive, accepting environment in order to flourish.
- e. Brainstorm a possible solution.
- f. Select one or more possible solutions to work on.
- g. Improve and refine the idea(s).

Discuss with the class your individual solution(s)/invention(s) for solving your problem.

Have them consider the following questions.

- What does this invention do?
  - What new things will people need to be able to do?
  - How does it change the way we live? (How does it help people make their lives better, easier, healthier, or more enjoyable?)
3. Have each pair imagine a completely new invention that would help meet the needs of the 21st century. They should give this invention a name, describe what it does, and how it will improve people's lives. Have students create a poster with these facts and an illustration of their invention. Partners should present their posters to the class.

#### **Activity #4: HOMETOWN INVENTION STORY**

Tell students that they are now going to learn about a local farmer and his innovative technology that is “changing the game” for alfalfa farmers. As they watch the video, have them focus on:

1. The problem that needed to be solved
2. The invention process
3. The product's evolution
4. How the product is changing lives, making them better, more enjoyable.

Video Presentation: The Invention of the DewPoint 6210

Hold a class discussion where the above questions are answered and discussed.

Hand out the product description and information brochure to individual students. Discuss the workings of the DewPoint 6210, and some possible strengths and weaknesses of the product. Answer these questions from Activity #1:

- How does this invention help people?
- How do you think this invention is changing the way people live?



- What kinds of things did this person need to know in order to create his invention?
- Would you consider this a successful invention? Why or why not?

As a final discussion, leave students with the thought that anyone can be creative, solve problems, and make lives better and more enjoyable for others. Remember, the world, is made up of inventions, and there are still many problems to be solved. Encourage them to think their ideas through, to be problem solvers, and never give up on their dreams.

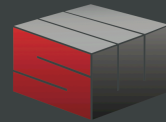
For further lesson ideas about inventions, see:

<http://www.just-think-inc.com/documents/LessonGuide2012.pdf>

<http://www.kansas4-h.org/doc7904.ashx>

Appendix D: Machine Overview

# DEWPOINT 6210 MACHINE OVERVIEW



STAHELI WEST

**STEAMHOSES**  
4 Hoses to strategic areas of the baler

- 1. Under Pickup
- 2. Windguard
- 3. Packer Chamber
- 4. Packer Chamber Floor

**BOILER**

Low pressure (12 psi) boiler with patented water circulation system

**GENERATOR**

1.6L Diesel  
12,000 Watt



**BURNER**  
5 Million BTU  
Diesel-Fire Burner

**WATER TANKS**

1,000 Gallons  
Will last 3-6 hours of baling

**TIRES:**

BKT Floatation - 550/45-22.5  
OR  
Alliance Floatmaster - 620/40R22.5

**FUEL TANKS**

300 Gallons  
Will last 9-18 hours of baling



STAHELI WEST

CHANGING AGRICULTURE, CHANGING LIVES

