

Journal of the WTEA

Spring 2019

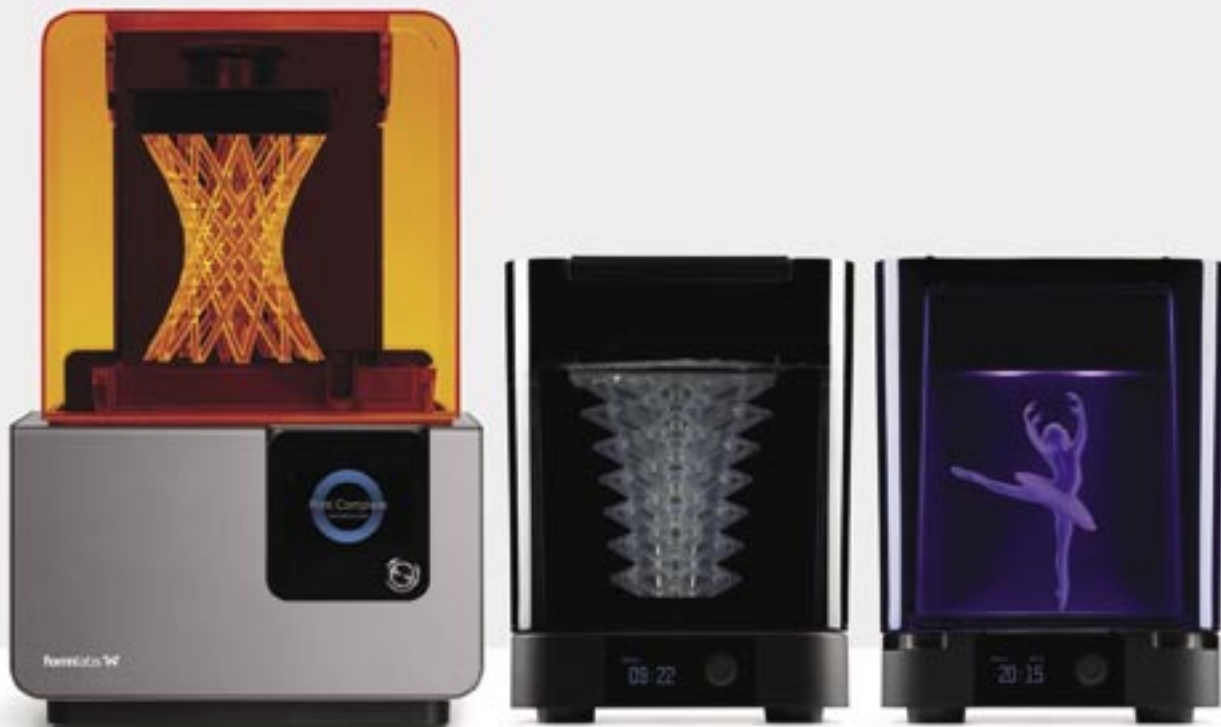


Preparing Today's Students for Tomorrow





Intuitive, reliable SLA technology on your desktop!



The Form 2 3D Printer delivers high-resolution parts at a fraction of the cost. It was engineered for precision and designed for reliability. With the Form 2, you will create strong, detailed models with a stunning surface finish.

Contact us today for more information!

FIRST 
TECHNOLOGIES INC. 800.787.9717 • info@firsttech.com • www.firsttech.com
Putting Education ... FIRST

ADVERTISERS

First Technologies, Inc.

Gateway Technical College

Goodheart-Willcox Publisher

Haldeman-Homme, Inc.

LAB Midwest

Wisconsin Technical College System

Youngblood Lumber Co.

SUPPORT OUR ADVERTISERS

TABLE OF CONTENTS

WTEA Board of Directors	2	Conference Highlights	16-17
President's Message	3	Awards	18-19
WTEA Board News & Calendar	4	Educator of the Year	20-21
Vice-President's Message	5	H.S. Program of the Year	22-23
Director Reports	6-7	Scholarship Recipient	24-25
District F Event	8	UW-Platteville	26
Announcements	9	Thank You	27
President-elect Introduction	11	ITEEA	28
New District C Director	12	DPI Listening Session	29
Pen Turning Workshops	13	ChallengeUSA	30
Big Trucks Tour	14	Life After the Classroom	31
WiFAB Retreat	15	ETF Statement Info	32

Cover design by Howard Roloff, 116 S. Morris St., Stoughton, WI 53589 • hroloff1@yahoo.com

Interface, the journal of the **Wisconsin Technology Education Association**, is published & mailed from Stoughton, Wisconsin three times a year and is distributed to members of the **WTEA**. Individual subscriptions are available at \$30 per year.

For subscription information, back issues, or reprints please send requests by email to joe.ciontea@wtea-wis.org.

Articles for publication should be sent to: Doug MacKenzie, 960 Yuma Circle, Stoughton, WI 53589, doug@wtea-wis.org.

Copyright (c) 2019. All rights reserved. Limited reproduction rights are granted to current members of the WTEA.



WTEA Refund Policy

The WTEA Membership fee is not refundable. The WTEA School Subscription fee is not refundable, but is transferrable to other staff in the same school district. The portion of the non-member conference registration fee equal to the amount of the WTEA membership fee is non-refundable. Refunds for Conference Registration and/or Awards Banquet must be received by US Mail or by email at least 15 days prior to the event. Exhibit space cancelled after Jan. □

YOUNGBLOOD

LUMBER CO.

Wholesale supplier since 1876

- FAST SHIPMENT AND DELIVERY
- FINE QUALITY CABINET GRADE MATERIALS
- ONE ON ONE SERVICE REPRESENTATIVES
- WIDE RANGE OF INVENTORY
- COURTEOUS KNOWLEDGEABLE SERVICE
- MATERIALS SORTED OR SELECTED SPECIFICALLY FOR YOU

THE INDUSTRY LEADER... SERVING THE UPPER MIDWEST

OFFICE HOURS
7:30 AM – 4:00 PM

YARD HOURS
7:30 AM – 3:45 PM

SATURDAY HOURS
8:00 AM – 11:45 AM

1335 CENTRAL AVENUE NE • MINNEAPOLIS MN 55413

612-789-3521 • 800-933-1335 • FAX 612-789-9625

Web Page: www.youngbloodlumber.com

2019 WTEA Board of Directors

WTEA Home Page www.wtea-wis.org



PRESIDENT - Phil Bickelhaupt
(H) 715-570-9376 (W) 715-424-6715 x 1036
(email) phillip.bickelhaupt@wrps.net
Wisconsin Rapids School District



VICE-PRESIDENT - Bob Morehead
(C) 715-704-0850
(email) bmorehead@cwasd.k12.wi.us
Chetek-Weyerhaeuser High School



SECRETARY/TREASURER - Matthew Schultz
(W) 262-359-8155
(email) mjschult@kUSD.edu
LakeView Technology Academy, Kenosha



PRESIDENT-ELECT - Dave Stroud
(C) 920-217-7439
(email) dstroud@ashwaubenonk12.org
Ashwaubenon High School



EXECUTIVE DIRECTOR - Joe Ciontea
(C) 920-904-2747 (FAX) 920-239-8948
(email) joe.ciontea@wtea-wis.org
WTEA Office: P.O. Box 531, Rhinelander, WI 54501



EXHIBIT COORDINATOR - Tom Barnhart
(W) 920-492-2955 Ext. 2089 (C) 920-615-1939
(email) tb.wtea@gmail.com
Ashwaubenon High School



PROGRAM COORDINATOR - Steven Johnston
(H) 608-689-3033 (W) 608-789-7700 x 3306
(email) johnston@mwt.net
Logan High School, LaCrosse



PROJECT SHOWCASE COORDINATOR - Steve Meyer
(W) 920-735-5668
(email) meyerst@fvtc.edu
Fox Valley Technical College



BUSINESS/ADVISORY TEAM LDR - Bryan Albrecht
(W) 262-564-3610 (C) 262-496-4592
(email) albrechtb@gtc.edu
Gateway Tech. College



DPI REPRESENTATIVE - Brent Kindred
(W) 608-266-2683
(email) brent.kindred@dpi.wi.gov
Tech. Educ. Consultant, P.O. Box 7841, Madison, WI 53707



CESA REPRESENTATIVE - Tom Martin
(H) 608-874-4414 (W) 608-822-3276 x 242
(email) tmartin@cesa3.org
CESA #3, 1300 Industrial Dr., Fennimore, WI 53809



TECH COLLEGE REP. - Mike Cattellino
(W) 920-735-4887
(email) cattelin@fvtc.edu
Fox Valley Technical College



WEBMASTER - Michael Beranek
(C) 715-579-2273
(email) mkberanek@gmail.com



INTERFACE EDITOR - Doug MacKenzie
(H) 608-873-9479
(email) doug@wtea-wis.org
960 Yuma Circle, Stoughton, WI 53589



UNIV. REPRESENTATIVE - Frank Steck
(W) 608-342-1246
(email) steck@uwplatt.edu
1 University Plaza, 411 Pioneer Tower, Platteville, WI 53818



DISTRICT A DIRECTOR/UNIV. REP. - Sylvia Tiala
(W) 715-232-5619 (H) 715-523-9060
(email) tialas@uwstout.edu
224D Comm. Tech. Bldg., Menomonie, WI 54751



DISTRICT B CO-DIRECTOR - Brian Schiltz
(H) 715-453-2947 (W) 715-453-2106
(email) schiltzb@tomahawk.k12.wi.us
Tomahawk High School



DISTRICT B CO-DIRECTOR - Pete McConnell
(H) 715-536-2691
(email) mcconnell.pete@gmail.com
Prairie River Middle School, Merrill



DISTRICT C DIRECTOR - Louis VandeHey
(W) 920-754-4341
(email) lvandehey@reedsville.k12.wi.us
Reedsville High School



DISTRICT D DIRECTOR - Jon Larson
(W) 920-788-7600
(email) jlson@littlechute.k12.wi.us
Little Chute High School



DISTRICT E DIRECTOR - Alan Mamerow
(C) 262-957-6022
(email) mameal@hamilton.k12.wi.us
Hamilton School District, Sussex



DISTRICT F DIRECTOR - Eric Sutkay
(W) 262-359-8155
(email) esutkay@kUSD.edu
LakeView Technology Academy, Kenosha



DISTRICT G DIRECTOR - Stephen Hadfield
(W) 715-884-6412 Ext. 310
(email) HadfiSte@pittsville.k12.wi.us
Pittsville Area School District



DISTRICT H DIRECTOR - Art Pronschinske
(W) 608-943-6312 Ext. 2017
(email) apronschinske@igs.k12.wi.us
Iowa-Grant School District, Livingston



DIRECTOR AT LARGE- Angela Arneson
(W) 920-833-7199 Ext. 355
(email) aarneson@seymour.k12.wi.us
Seymour Middle School



DIRECTOR AT LARGE - Doug Dimmer
(C) 262-388-0660
(email) doug.dimmer@huhs.org
Hartford-Union High School, Hartford



DIRECTOR AT LARGE - Doug Kugler
(H) 262-790-9128 (W) 262-548-8031
(email) dkugler@waukesha.k12.wi.us
Waukesha County Juvenile Center, Waukesha



DIRECTOR AT LARGE - Emily Fransway
(H) 715-459-4120 (W) 715-684-3321 Ext. 4137
(email) efransway@bwdsd.k12.wi.us
Baldwin-Woodville High School

From the President's Desk

By Phil Bickelhaupt, WTEA President

Spring is finally here! What a winter Wisconsin just experienced! Clearly one for the record books in many aspects. Polar Vortex. Snow, snow and then more snow in the north! Hopefully this April we can avoid a snowstorm and keep the flowers blooming! As Wisconsin experienced a winter to remember, the WTEA also experienced a conference to remember! This past conference marked 50 WTEA conferences. While I have not been to all 50, I can say of the conferences I have attended, this one was by far the best for me.

Being able to be the President during our 50th conference was a honor and brought me great joy. As I reflect on the conference, we all enjoy the conference for many reasons, whether it be learning new ways to engage students, seeing the projects students have made or seeing new items offered by vendors at the tradeshow. Perhaps the best part of this year's conference for me was the networking with educators old and new during the 50th celebration dinner on Thursday evening.

During the 50th celebration event, I was able to chat with many retired educators that I have not seen in many years and hear all the great things they are doing in retirement. I was able to connect with Dave Rasmussen, my cooperating teacher when I was student teaching way back at the turn of the century (2000). It was great to see Dave and talk with him about his retirement living up in the Upper Peninsula and all the neat things he is doing for his community. For those of you who may not know



Dave, he is also known as the guy who brings the horse game to the conference, which many of you played! I was also able to catch up with Denny Nelson for three great days, another fellow teacher with me in Wisconsin Rapids, who retired several years back. I was also able to talk with many younger and new teachers during the evening event, including Chris Ziegler, a former student, whom I didn't even know was teaching! I also spoke with many other great educators as I made my way around the ballroom - many of them talking about how great the conference was and getting pumped up to go back to their classrooms and use the knowledge they gained at the conference.

As I reflected on the evening celebration, one thing stood out. A number of younger teachers were excited about the WTEA and asked how they can be more involved in the WTEA and how they can be advocates for Technology and Engineering education. This was refreshing to see and hear, as the education profession over the last eight years has taken its fair share of negativity.

My call to action to those younger educators is to keep that excitement going! Feel free to reach out to me or any Board member to ask how you can become involved. We need you to be the next set of leaders that move the WTEA in a positive direction for the next 50 years!

In closing, enjoy the last weeks of the 2018-2019 school year. Keep inspiring and engaging your students as we close out another school year!



**Plan now to attend
the 51st
WTEA Annual Conference**

“Preparing Today's Students for Tomorrow”

March 4 - 6, 2020 • Chula Vista Resort • Wisconsin Dells



Winter 2019 WTEA Board Meeting Highlights

By Matt Schultz, WTEA Secretary/Treasurer

The following summary highlights the 2019 Winter Board meeting held January 11 & 12 at Chula Vista.

- WTEA is looking to partner with supporting companies/organizations to sponsor different events at the conference. There are plenty of opportunities for companies and organizations to get involved on all three days of the conference. Contact Joe Cointea if interested in learning more.
- Transcript high school credits with local Technical College. Contact your technical college to get this opportunity for your students started.
- 52 experienced based licensee applications for 2017-2018.
- 86 experience based teachers teaching in Wisconsin - 138 in the state (994 total licensed tech ed teachers).
- The WTEA is encouraging members to host a "High-Tech" Weekend in your area. Topics can include a wide variety of subjects. For more information contact Joe Cointea.
- WTEA is kicking off a new program called the WTEA

Student Ambassador Program. This program will support high school students interested in a career as a Technology Education teacher. The WTEA Board of Directors has appointed a committee to lead this effort. If you are interested in learning more or being apart of this committee and efforts, contact Matthew Schultz.

- Motion to award Bob Newton with "Spirit of WTEA Award" at the WTEA 50th anniversary session.
- UW-Stout (Sylvia Tiala).
 - Looking into Industry 4.0, adding it into their program.
 - Numbers are up to 80-90 students.
 - Working on articulation with different tech colleges.
 - Dr. Ken Welty retired.
- UW-Platteville (Frank Steck).
 - Enrollments are down over all. Enrollment is around 20 students.
 - Updating the website to increase enrollement.
 - Engineering Department is buiding a new hall - Sesquicentennial Hall.

*For additional information about this meeting contact any member of the Board of Directors.
Complete minutes are available from Matt Schultz at mjschultz@kUSD.edu.*

- Dates to Remember -

April 30 - May 1	SkillsUSA WI 46th Annual State Conference	Madison, WI
May 11	Pen Turning Workshops	Merrill & Sun Prairie, WI
May 15	WTEA Foundation Scholarship Application Deadline	
June 19 - 20	Big Trucks Tour	Oshkosh & Appleton, WI
June 24 - 28	WiFAB Retreat West	UW-Stout, Menomonie, WI
June 24 - 28	SkillsUSA 55th Annual National Conference	Louisville, KY
July 8 - 11	Automotive Technology Summer Institute	Madison, WI
July 15 - 19	WiFAB Retreat East	FVTC, Appleton, WI
October 11-13	Career Pathways Network National Conference	Orlando, FL
December 4 - 7	ACTE Career Tech National Conference	Anaheim, CA
March 4 - 6, 2020	51st Annual WTEA Conference	Wisconsin Dells, WI

50th Anniversary Celebration - A Great Look Back

By Bob Morehead, WTEA Vice-President

During the 50th anniversary celebration at this year's conference, I had the privilege of sitting with a group of seasoned WTEA veterans and alumni. Throughout the night, I enjoyed listening to stories of comradery, friendship, and a little college mischief. I went to UW-Stout in the late 1990's. The stories that were told took place a decade or two prior to that. Change a few names and those events could have easily have happened during my time at Stout. I laughed often and pictured my friends in some of those situations.

The WTEA has a history of leadership and dedication to serving the technology ed-

ucation teachers of Wisconsin. The anniversary celebration was a great look back at the names, faces, stories, that made our organization what it is today. I very much enjoyed the night and I think the event was a big success.

This time of year can be stressful and your patience may be running low. Don't forget that you are not alone. Even if you are the only teacher in your department, you still have a huge network of peers that can help out in many ways. All you have to do is ask. Have a great spring, finish strong, and don't forget to laugh and have some fun along the way!



An advertisement for the AFINIA 3D DOBOT robotic arm. The background is a blurred image of a classroom with students. On the left, a white and grey robotic arm is shown holding a blue pen. The top left features the AFINIA 3D logo and the DOBOT logo with the tagline 'Share Creating Pleasure'. The right side contains four text boxes with icons and images: 'Best multi-functional robotic arm' (with a 3D printer icon), 'Graphical programming environment' (with a code editor icon), 'Cross-subject learning tool' (with a group of students icon), and 'Highly extendable - Makers' first choice' (with a circuit board icon). At the bottom, a blue banner reads 'Dobot is a cutting edge robotic arm that can 3D print, manipulate objects, write and draw!'. Below this is a 'More info at afinia.com' button. The bottom left corner has the 'FIRST TECHNOLOGIES INC.' logo with the tagline 'Putting Education ... FIRST'. The bottom right corner has the contact information: '800.787.9717 • info@firsttech.com • www.firsttech.com'.

DIRECTOR REPORTS

An Inspiring Conference!

Emily Fransway, Director-at-Large



What an amazing 50th WTEA conference. I came away from it fired up to get back into my classroom and to improve my lessons and curriculum with the information I took away from going to the seminars and walking through the Trade Show. Personally, here at Baldwin-Woodville, we are really

looking into starting to teach the first course of Industry 4.0, so a few meetings have already happened with Mike Dietche from Mid West Labs and with our Principal on funding this. I also took so much away from Bob Morehead's Welding Symbols presentation and have already taught a few lessons with the notes I took at that!

Every year I think the WTEA conference comes at a perfect time because it is starting to get nice outside and we start thinking about summer plans. But WTEA reels me back in to my classroom, lessons and curriculum and I always walk away from the conference wanting to become a better teacher!

District E Report

Alan J. Mamerow, District E Director



Happy spring to all WTEA members! It was great to see many of you at this year's Annual Conference. One of my goals as a newer district director is to work with those of you in District E to determine what types of events you are most interested in attending.

Whether it be a district meeting, industry tour, high tech weekend, or something else, I am looking for input from the WTEA membership as we plan for next school year. Be watching for a survey sent out via the listserv later this spring.

In addition to planning events for next year, I am also working on updating the District E contact list. If you are new to District E, have changed schools, or are in the areas surrounding District E, please let me know. I can be reached at mameal@hamilton.k12.wi.us or at (262) 957-6022. I look forward to connecting with many of you in the coming months. Finish the school year strong!

District D Report

Jon Larson, District E Director



I hope everyone had as much of a great time at the WTEA conference as I did. There are always sessions I go to every year where I can take information or projects back and directly implement them into my classes. There was no shortage of that this year! I brought back a few projects this year and my kids

love them!

Look for information this summer on a High Tech weekend in Little Chute this fall for laser engraving and making 3-D lake maps.

District G Report

Stephen Hadfield, District G Director



A common theme in today's education is "making connections." In technology and engineering education we have the ability to easily connect with those students who may or may not struggle in core academic areas, or possibly connect with students that do not excel in athletics or other extracurricular activities.

We also have the means to connect with industry and post-secondary partners. If you are not already making these connections, I encourage you to do so. These relationships will only help strengthen your program and add validity to technology and engineering at your school district.

A recent connection I made was with Mid-State Technical College (MSTC) and their mobile manufacturing lab. The lab features a CAD drafting station, five 3D printers, CNC mill, vacuum former, and faro arm for measuring. Many technical colleges around the state have similar mobile labs and these mobile facilities allow students to experience 21st century skills and technology while making connections with their local technical college.



District A Report

Sylvia Tiala, District A Director



Welcome to spring everyone! It's great to see a bit of pavement, robins, and longer days this time of year. There is a lot of activities being planned in District A this spring.

WTEA's District A spring meeting is scheduled for Wednesday, April 17th. We plan on meeting at the Baldwin-Woodville high school with a tour of a local industry beginning at 5:30 pm.

2019 ChallengeUSA will be held April 26th and 27th in Menomonie. As is the tradition, UW-Stout's TEECA students will be your hosts. They are busy finalizing the preparations to make sure everyone has a good time.

UW-Stout's Emerging Center for Career and Technical Education Excellence is now up and running with Deanna Schultz as the director. Plans are underway for the 4th Annual CTE Summit scheduled for June 20th and 21st. This year the focus of the summit will shift to examining CTE through collective impacts.

I look forward to seeing you at some of these events.

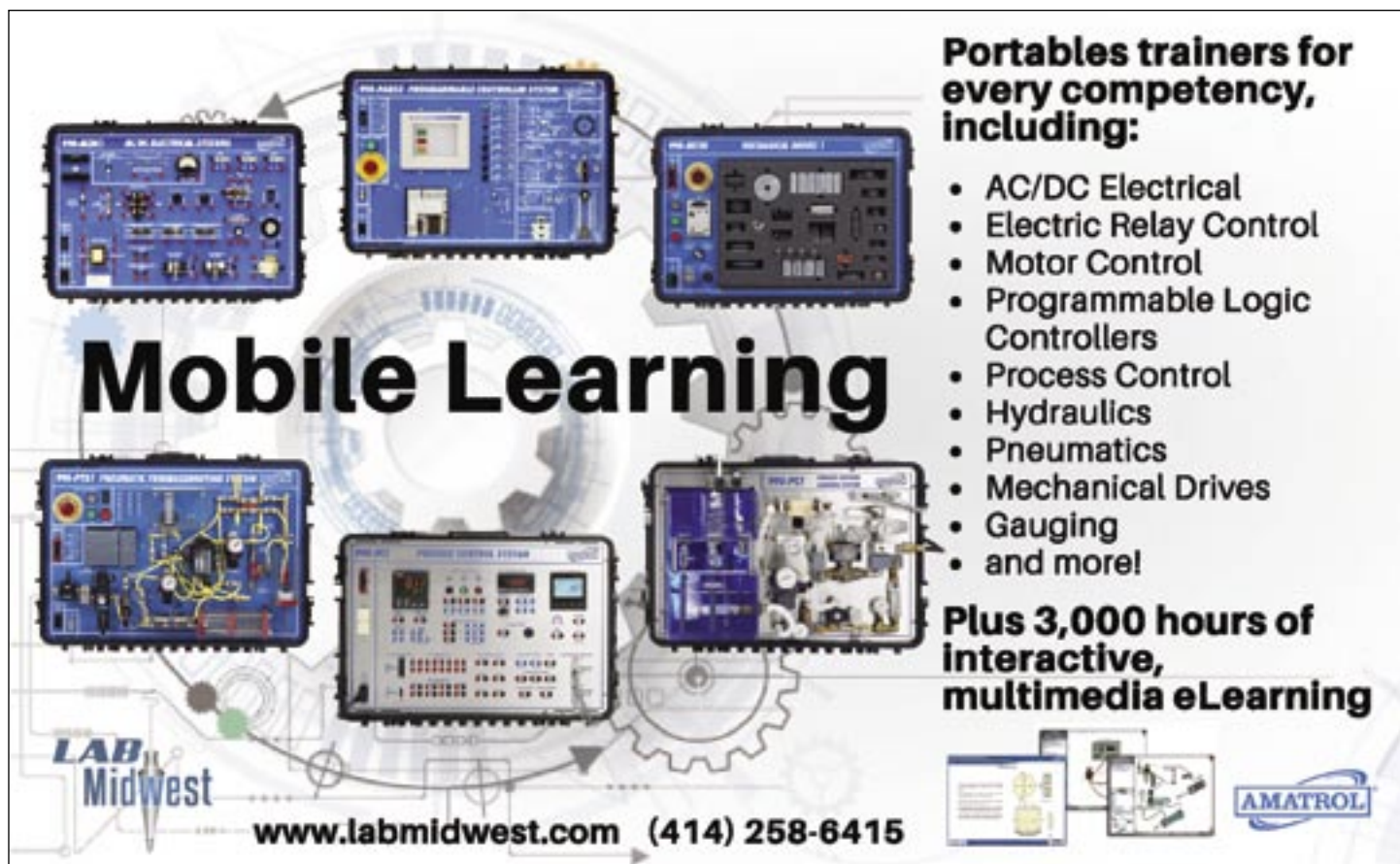
A WTEA Experience

Angie Arneson, Director-at-Large



If you missed the 50th WTEA conference this year then you missed an excellent array of special events, outstanding presenters and fun giveaways. One of my favorite things at the conference this year was the special 50th banquet that allowed us to go back memory lane with trivia and past presidents.

I also enjoyed seeing all of the Middle School teacher events this year with the Middle School Project Showcase and the Middle School Roundtable Discussion. As a board member I have taken on the responsibility to do my best to add more of a Middle School teacher presence at our annual conference and I plan on having even more Middle School opportunities at next year's conference. If you are a Middle School teacher and you have some ideas for different sessions or opportunities at our conference, please let me know. I am always in search of other MS teachers as presenters. As Spring and warmer weather arrives, I hope that you feel refreshed to end the year with a bang for you, your students and your district.



Mobile Learning

Portables trainers for every competency, including:

- AC/DC Electrical
- Electric Relay Control
- Motor Control
- Programmable Logic Controllers
- Process Control
- Hydraulics
- Pneumatics
- Mechanical Drives
- Gauging
- and more!

Plus 3,000 hours of interactive, multimedia eLearning

LAB Midwest

www.labmidwest.com (414) 258-6415

AMATROL

Blackhawk Tech and Lennox Spring District Event Successful

By Eric Sutkay, WTEA District F Director

On February 19, 2019 the WTEA and Blackhawk Technical College were excited to partner with Lennox to host a district event for teachers, administrators and Lennox dealers in the Blackhawk and Gateway Technical College districts. The event offered an opportunity for high school teachers to speak with not only other teachers, but district administrators, Lennox dealers and parents of students in programs that are thriving in HVAC. The evening also offered an opportunity for individuals to tour the Blackhawk campus and discuss curriculum and programming with the staff.



Dave Chatmon and Charlie Willkomm, Lennox representatives, provided insight into how Lennox is working with local technical colleges as well as high schools to build a pipeline of trained individuals for the HVAC industry. We started with an introduction to Lennox VisionTECH, an annual conference hosted by Lennox to bring the industry together to learn, grow, compete,



and strengthen their teams. This year's conference was planned for April 8-9 in the Wisconsin Dells. Charlie also presented to the group some of the latest technology in their ICOMFORT thermostats and showcased some of the displays and controls.

After the demonstration of the thermostat, Charlie took everyone into the shop and discussed their Furnace Carts - essentially the blower motor and furnace controls mounted to a hand truck dolly. Attendees were able to explore the systems and discuss options for diagnostic checks that could be done in the classroom. Included in this was the perspective from a Lennox dealer and the discussion of job shadowing and Youth Apprenticeship.



The evening's event concluded with a tour of the Blackhawk Technical College HVAC program. Instructors and administrators were able to discuss the opportunities of transcripted credit or students continuing their two year associate degree at the college. Again, the Lennox dealers were able to provide perspective on the job outlook and training associated with the Technical College Program.



If you are interested in learning more about including HVAC into your program, partnering with Lennox or Blackhawk, or the opportunity to build a furnace for your classroom, please contact me at esutkay@kUSD.edu. Also if you have ideas for a district event please contact me and we can set something up.

ANNOUNCEMENTS

WTEA Foundation Scholarship

The WTEA Foundation is offering a renewable \$1000 scholarship for a high school senior who commits to pursue a career as a K-12 Technology & Engineering educator.

Eligibility

- Wisconsin resident
- Enroll in Technology Education at a Wisconsin University and start the fall semester
- Submit completed application form and 250 word essay



2019 Scholarship Recipient
Natalie Elfering, *UW-Platteville*

Deadline extended to May 15, 2019!

Submit by email.

Details of the scholarship and the application form can be found on the WTEA Foundation website at www.wteafoundation.org.



Order Shirts With WTEA Logo



Clothing with the WTEA logo can be purchased at the WTEA eStore. Simply go to the WTEA website at wtea-wis.org and click on WTEA eStore under the main menu. There you will find a link to the Logo Merchandise page.

There are several styles and colors to choose from. Here are a few samples:



HALDEMAN HOMME, INC

Technical Products Division

Haldeman Homme presents the Stratasys F120 3D Printer

Powerfully reliable, affordable industrial-grade 3D printing.



The newest member of the F123 platform brings the value of industrial grade 3D printing capabilities to an accessible price point.

The F120 is everything you expect from Stratasys:

- Accurate results
- User-friendly interface and workflow
- Durable 3D printing hardware
- Low maintenance
- Print for up to 250 hours, uninterrupted
- 2-3 times faster than competition



Haldeman Homme was honored to sponsor this year's Inspire Award recipients and raffle winner!



Congratulations to Inspire Award Winners Wesley Glenna from Two Rivers High School and Doug Devine from Eau Claire North High School. Pictured here with Dr. Sylvia Tiala from UW-Stout and Larry Granec from Haldeman Homme, Inc.

Congratulations to Jake Larabee from Big Foot High School, the winner of the WTEA raffle grand prize, a factory refurbished Roland Vinyl Cutter, donated by Haldeman Homme, Inc.

UNIVERSAL
LASER SYSTEMS

stratasys

MakerBot

Roland

FESTO

FOREST
SCIENTIFIC
CORPORATION

If you missed us at this year's trade show, please do not hesitate to contact us at:

Larry Granec

Sales Consultant - Wisconsin
(608) 630-1018
lgranec@haldemanhomme.com

John Neal

Sales Consultant - NW Wisconsin
(CVTC and WITC district geography)
(612) 805-0318
jneal@haldemanhomme.com

Visit our website www.hhtechproducts.com and download our Fab Lab Planning Guide.

WTEA PRESIDENT-ELECT

An Introduction

By Dave Stroud, WTEA President-Elect



As the President-Elect of the WTEA I thought it would be a good idea to introduce myself. My name is Dave Stroud and I have been a Technology & Engineering teacher for 19 years. For the last 18 years I have been teaching construction, woodworking, automation, fluids, electricity, and PLTW's IED and POE at

Ashwaubenon High School and occasionally Parkview Middle School. Other school related responsibilities that I have include chairing the Technology & Engineering department, advising SkillsUSA, Student Council, and the Community Service Club, coaching the Parkview Middle School soccer team, and sitting on various committees such as Academic & Career Planning, Gradual Release of Responsibility, and School Culture committees. In the summer I teach woodworking to 3rd through 6th graders as part of our summer school program.

When I'm not at school, my family takes up the rest of my time. I've been married to my wife Jennifer for 15 years now and in that time we have had four great kids. Noah is my oldest, and I am looking forward to teaching him next year when he starts his freshman year at Ashwaubenon High School. I have a daughter Reagan that is in 6th grade at Parkview Middle School and twin daughters, Josie & Callie that are in 2nd grade at Valley View Elementary School. With four kids and many work responsibilities I somehow still find time to coach soccer in the summer for the Village of Ashwaubenon and sit on the Ashwaubenon Youth Soccer Association board as the

treasurer. Starting Memorial Day weekend every year we try to go on at least four camping trips to various campgrounds around Northeast Wisconsin.

As the next President of the WTEA I will strive to:

- Provide opportunities for Technology & Engineering teachers to learn new skills and develop as leaders.
- Connect Technology & Engineering teachers to post-secondary education, business, and industry.
- Improve the health of our profession by working to bring in and train the next generation of teachers.
- Strengthen relationships between the WTEA and its partners.

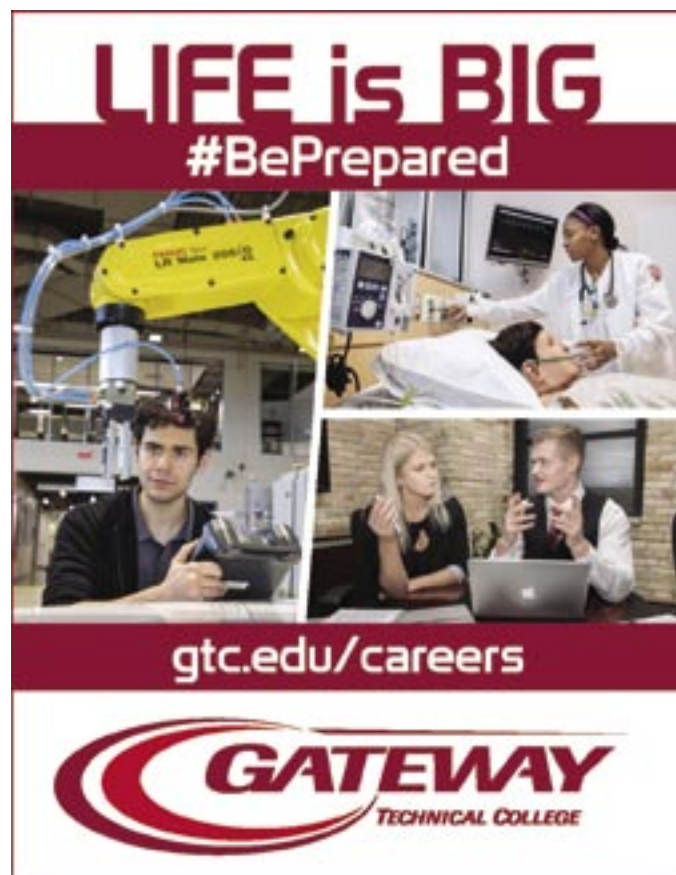
I believe that it is the responsibility of the WTEA and the President to serve all Technology & Engineering teachers in Wisconsin. If you ever have an issue with how things are going or ideas on how we can improve, don't hesitate to contact me.

Have a great finish to your school year and a relaxing summer!

Get Published & Save Money!

Write an article for the Interface
and receive a \$10 discount
on your membership renewal.

Submit articles and photos to Interface Editor
doug@wtea-wis.org



LIFE is BIG
#BePrepared

gtc.edu/careers

GATEWAY
TECHNICAL COLLEGE

INTRODUCTION

New WTEA District C Director Louis VandeHey

I'm Louis VandeHey, your new District C Director. I'm in my second year of teaching Technology Education at Reedsville High School in Reedsville, Wisconsin. My course offerings here at RHS consist of: Exploring Technology, Interactive Modular Technology, CAD, Graphics 1&2, Woods 1&2, Architectural Drafting, and Research & Development. This year I have been able to add a 3D printer and a laser engraver to our arsenal, so I've been working on getting those incorporated, and getting the students hands-on as much as possible.



My background is my strongest quality as a teacher. In 2009 I graduated from NWTC with a technical diploma in Welding. With the not-so-booming economy I was unable to find a career as a welder so I enlisted in the Navy. After five years and two deployments overseas I decided to hang it up and pursue my undergrad at UW-Stout.

Serving in the Navy is where I discovered my passion for teaching. As you can imagine - you come across all different teaching styles in the military. I learned very

quickly which ways were effective for me, and which ways I would rather not endure. As I climbed the ranks and found myself in leadership roles, I had the opportunity to adapt the various styles of teaching that I had encountered and establish my own methods. Training upward of 30 young sailors, with their own adult problems, while deployed in hazardous duty stations is slightly different than teaching in a rural high school with class sizes rarely over 20, although there are some similarities.

When I'm not in the classroom you will likely find me at home spending time with my loved ones, tinkering in my woodshop, cursing winter, or hitting the road in either my '83 Squarebody Chevy, or on my Harley Ultra-Classic.

As District Director, it is my goal to vastly expand my professional network, establish a better relationship with surrounding industry, but most importantly to assist area Technology Educators in achieving our common goals.

I can be reached via email at lvandehey@reedsville.k12.wi.us, or on social media @MrVTechEd.

Reality isn't Virtual. (It's hands-on)

Innovative training equipment and curriculum to train advanced manufacturing skills.

Automation Trainer

Compact Logic PLC Trainer

Pneumatics Trainer

VFD Trainer

Servo Motion Trainer

Our practical approach utilizes industry-standard components, designed to simulate industrial systems that are modular and offer connectivity with infinite opportunities for continued learning to close the skills gap.

Learn more about the entire Mobile Modular Training Systems™ family, curriculum details and more at mobilemodulartraining.com

FIRST
TECHNOLOGIES INC.
Putting Education ... FIRST

800.787.9717
info@firsttech.com
www.firsttech.com

MIND THE SKILLS GAP

CURRICULUM INCLUDED

hands on mobile training

SPRING WORKSHOP

Instructor Training: Pen Turning for Veterans

By Pete McConnell, Prairie River Middle School

On Saturday, May 11, a pen turning workshop for instructors will be presented at two locations. Attendees will learn everything necessary regarding how to make a pen. Participants will make at least 2 pens (one to take home, one to donate to the veteran program). This activity or unit or program can be part of your curriculum, a club activity, a community activity, or whatever YOU want it to be.

Who is invited?

Teachers interested in pen making and possibly having their students make pens for Honor Flight Veterans in their region/community. (Community Service for your students).

What is provided?

Printed and digital curriculum, tools and material lists, costs, suppliers, grant & funding information, Student Community Service Certificates, and the knowledge and skills to make our own pens. Also sandwiches and beverages provided at lunch time.

When is it?

May 11, 2019 from 10:00 a.m. -1:00 p.m. Optional time to collaborate and work will be announced at workshop if more time is desired.

Where is it?

North Location

Prairie River Middle School
106 N Polk Street, Merrill, WI 54452
Door #8 (Look for the Dust Collector)
715-218-9782

robert.mcconnell@maps.k12.wi.us

Participants will need to sign an activity waiver to cover insurance liability per MAPS policy. Also there will be a WTEA District B meeting hosted by co-directors Brian Schiltz and Pete McConnell.

South Location

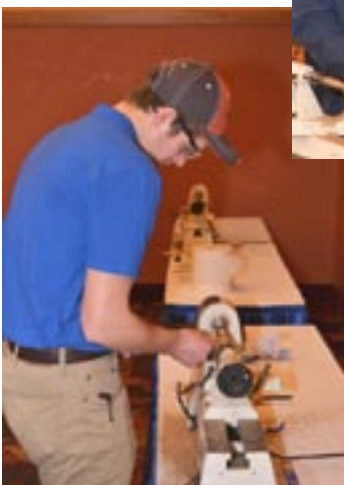
Cardinal Heights Middle School
220 Kroncke Drive, Sun Prairie, WI, 53590
Door #11 (Look for the Dust Collector)
608-219-0966

mproth@sunprairieschools.org

Any questions please contact Pete McConnell
or Michael Roth

**Sponsored by WTEA and Badger Honor Flight
& Never Forgotten Honor Flight chapters.**

**Photos taken at
Pen Turning Workshop
at WTEA Conference
March 8.**



"Big Trucks Tour"

Careers Exploration Event

June 19th & 20th



BROUGHT TO YOU BY
THE NEW MANUFACTURING ALLIANCE
AND

THE WISCONSIN TECHNOLOGY EDUCATION ASSOCIATION

Come join the *NEW Manufacturing Alliance* (NEWMA) and the *Wisconsin Technology Education Association* (WTEA) for two fun filled days learning about Science, Technology, Engineering, and Mathematics careers and learning experiences in the design and fabrication of world class military and public safety vehicles. This event will include in depth tours of *Oshkosh Defense*, *Pierce Manufacturing*, and the *Fox Valley Technical College Public Safety Training Center*. Events will also include test rides on the new JLTV military truck and dinner at the Fox River Brewing Company with NEWMA members and Oshkosh Corporation employees. The event is \$30 and open to the first 35 who register. We hope you can enjoy us for some fun, learning, and camaraderie with the

Big Trucks Tour Career Exploration Event.

EVENT INFORMATION

Dates and Times:

June 19th, 8:30 AM – 6:00 PM

June 20th, 8:30 AM – 1:00 PM

Locations:

June 19th – Oshkosh

June 20th – Appleton

Sign Up Procedures:

Go to the WTEA homepage for more information and a sign up link <http://www.wtea-wis.org/>

*Sign up due by 5/1/2019

Contact Information:

Joe Clontea (WTEA) -

joe.clontea@wtea-wis.org


Ann Franz (NEWMA) -

Ann.Franz@NWTC.EDU

Mike Cattellino (FVTC) -

cattelin@fvtc.edu





WiFAB Retreat

Now that you have fab lab equipment, what do you do with it?

WiFAB Retreat West - June 24-28, 2019

University of Wisconsin-Stout

Fab Lab - 132 Applied Arts

415 13th Avenue East

Menomonie, WI 54751

www.uwstout.edu/wifab

WiFAB Retreat East - July 15-19, 2019

Fox Valley Technical College Fab Lab

FVTC D. J. Bordini Center

5 N Systems Dr

Appleton, WI 54912

www.uwstout.edu/wifab

- Develop fab lab design curricula.
- Understand how a fab lab can be used to support multi-disciplinary learning.
- Receive project kits to take back to your classroom.
- Understand how simple problems can teach age-appropriate STEAM concepts and skills.
- Explore the iterative nature of design: brainstorming, drawing, modeling, testing, prototyping.
- Develop a network of fab lab teachers through multiple social functions during the week.

"Student engagement comes alive using design thinking in schools. This professional development retreat focuses on challenging students to imagine solutions to problems, and to make their solutions come alive leveraging fab lab tools. UW-Stout is proud to partner with Fox Valley Technical College in developing and delivering this unique, top-quality fab lab professional development to Wisconsin's K-12 educators." Bob Meyer, Chancellor, University of Wisconsin-Stout



"Using the design process, students learn teamwork, problem solving skills, and the ability to weigh ideas; all things we hear employers want and need from their employees." Randy Hulke, UW-Stout Discovery Center



[illegible]

Spring 2019

March 6 - 8, 2019

Chula Vista Resort - Wisconsin Dells

“Pride, Progress, Professionalism”

Highlights



“Preparing Today’s Students for Tomorrow” • March 4 - 6, 2020

AWARDS

2019 WTEA Awards

Presented at the Awards Banquet - March 6, 2019

Future Technology Educator Scholarship

Sponsored by WTEA Foundation



Natalie Elfering
UW-Platteville

.....

WTEA Inspire Award

"For Fostering Future Technology Educators"

Sponsored by Haldeman-Homme, Inc.



Doug Devine
Eau Claire North High School
Wesley Glenna
Two Rivers High School

.....

WTEA Special Recognition Award

"For Contributions & Service to Technology Education"



George Karling
Three Lakes School District

Tom Martin
CESA 3

Myshock Tool & Die Corp.
Milwaukee

WTEA Award of Excellence

"For Exemplary Achievement in Technology Education"

Sponsored by Goodheart-Willcox Publisher



Kristie Heckendorf-Paul
Mosinee High School

Jeff Luetschwager
Arrowhead Union H.S.



Dana McLaren
New Berlin School Dist.



Garrett Pongratz
Westosha Central H.S.



Travis Ray
McFarland H.S.



.....

WTEA Lifetime Achievement Award

*"For Distinguished Achievement & Leadership
in Technology Education"*

Sponsored by Goodheart-Willcox Publisher



Mike Roth
Cardinal Heights Middle School

WTEA Middle School Program of the Year

*“Outstanding Middle School
Technology Education Program”
Sponsored by Goodheart-Willcox Publisher*



Hudson Middle School

.....

WTEA High School Program of the Year

*“Outstanding High School
Technology Education Program”
Sponsored by Goodheart-Willcox Publisher*



Portage High School

.....

ITEEA Program Excellence Award Nominee

Ashwaubenon High School

ITEEA Awards presented at the ITEEA Annual Conference March 27 - 30

WTEA Technology Educator of the Year

*“For Outstanding Contributions
to Technology Education”
Sponsored by Goodheart-Willcox Publisher*



Steve Kmosena - Mosinee High School

.....

WTEA 25 Year Award

*“For 25 Years of Service to Education”
Presented at the Annual Membership Meeting
March, 8, 2019*

Sponsored by First Technologies, Inc.



Michael Beranek	Clark Bliske	Karen Clark
David Doering	Ronald Duros	Steve Hoersten
Dave Jasperson	Bart Leibfried	Andrew Lemmers
Tom Marzahl	William Morse	Rick Romanski

.....

ITEEA Teacher Excellence Award Nominee

Rich Hemler, Portage High School

Special Thanks

The WTEA and the WTEA Foundation would like to thank the Awards program sponsors:

UW-Stout



Haldeman-Homme, Inc.



First Technologies, Inc.



Goodheart-Willcox
Publisher



AWARD WINNER

2019 WTEA Technology Educator of the Year

Steve Kmosena

Mosinee High School

Educational

Employment

I have been at Mosinee High School for 13 years. Prior to that I was at Antigo High School for 2 years. I currently handle all of the Welding, Machining and Manufacturing courses in Mosinee. These include: 8th Grade Metals, Intro to Welding and Machine Tool, Advanced Welding, Advanced Machining and Mosinee Manufacturing.



Awards

- WTEA Award of Excellence 2015
- Fellowship of Christian Athletes Regional Video Feature

Professional Organizations

- WTEA Member
- Central Wisc. Metal Manufacturers Alliance Member
- Wisconsin Wrestling Coaches Association Member
- WIAA Baseball Umpires Association
- Fellowship of Christian Athletes Huddle Leader
- Head Wrestling Coach Mosinee High School
- Manufacturing Club Advisor

Statement of Beliefs/Philosophy

My philosophy of teaching Technology Education

Expose Educate Challenge Support Prepare

Expose - As an educator it is my responsibility to expose students to as much technology as I possibly can. Students of all ages need exposure to current industry practices in order to be adequately prepared to enter the workforce. In turn I need to establish industry connections and my teaching practices need to evolve as technology does.

Educate - As an educator it is my responsibility to use best practices to educate all students. I believe that in

order to teach a student, I need to know that student. This means finding a way to connect with students and adjusting my teaching practices to best fit a student's learning style.

Challenge - As an educator it is my responsibility to challenge students to set high goals for themselves. I will never accept the words "I can't." When a student says this in class I quickly change that statement to "I

don't know how yet." My goal here is that students form habits that set them up for lifelong learning.

Support - As an educator it is my responsibility to support all curricular areas. I look at my classroom as an application classroom. Students take what they learn in the math classroom and apply it to tangible situations in my room. I also feel it is crucial to have connections with core area teachers and to collaborate and share best practices.

Prepare - As an educator it is my responsibility to prepare students for the future. No matter what path a student chooses after high school, I have an obligation to do whatever I can to prepare them for that.

My Goals for Teaching Technology Education

1. Create a safe environment for students and develop in them an attitude that safety is the most important aspect.
2. Give students as much exposure to equipment, processes and resources as possible.
3. Be fair but not equal. Fair means every student gets as much as he/she needs to be successful.
4. Hold yourself and students accountable in all aspects.
5. Do the work needed to have students ready for the workforce or to continue their education.
6. Be the hands and feet of Jesus.

On a more personal level, let me begin with an all encompassing THANK YOU!! To every teacher, coach, friend, colleague, family member, student or acquaintance that helped me along the way, with my deepest gratitude I thank you for the role you played in my journey. It is by the grace of God and the help of these amazing folks that I was recognized for this award. I really don't consider myself to be a great teacher. I try to do my job the best way that I know how and hope that what I am doing will have a positive and meaningful impact on my students. I am very fortunate to work with some very dynamic and high level professionals in my department and have benefited from being surrounded by people who support me and my program. I often wonder how different my career would look if I had not had Kevin Grundy and Dave Wentland working with me in my first years on the job. I was doing my student teaching under some odd circumstances. As

a student teacher I was also taking over the entire Metals course load. Kevin and I shared a homeroom and Dave was at the master level teaching all Woods and Construction classes. Those first two years were critical in building the foundation of what I do today. I could never possibly thank those two men enough for all that they did for me. College got me ready, they taught me how to teach. I think it goes without saying that we can't be successful on our own. It takes the help, advice and encouragement of many in order to succeed. That is what I love about our profession. In Tech Ed we are all willing to help out the next person, share ideas and support one another. In closing, I would just like to express my gratitude to the WTEA for all that they do to enrich Technology Education in Wisconsin.

Also to all the other educators out there . . . keep doing what you are doing because you are great at it!!

Check your mailing label now!

Check the first line of the mailing label on the back cover of this magazine to see when your membership expires.

Pay your dues for next year so you don't miss a single issue of the Interface.

More Than 3D Printing.



No other 3D printer has Markforged's range of materials, reinforced printing capabilities, and industrially-compliant tolerances. We're not just teaching students to 3D print. We're teaching:

- Engineering Design
- Materials Science
- Structural Engineering

 **Markforged**



Contact LAB Midwest for more info: (414) 258-6415

www.labmidwest.com

AWARD WINNER

2019 WTEA High School Program of the Year Portage High School Tech Ed Program

Portage High School's tech ed program consists of four teachers who primarily focus each on their own area. We offer students a wide variety of courses they can take ranging from auto, metals, construction, woods, CAD, and engineering. Our goal here in the PHS tech ed program is to give students the skills they need to be successful in whatever career path they choose.



The last tier is our Automotive Technology 2 class. We dive more in depth to the ASE testing areas, as the students do complete the ASE student certification test. Again through a hands-on approach, students fine tune their skills through diagnosis and repair. They receive a vehicle with a concern and go through the full process of making the neces-

sary repairs, starting with confirming the vehicle concern, finding the cause, estimating the cost of the repair, and making the necessary OEM repairs. With these skills obtained, students are encouraged to pursue a youth apprenticeship. Currently there are four young men in a youth apprenticeship for automotive/diesel. That has been the most youth apprenticeships in the automotive field here at PHS in some time.



Metals

Our metals and manufacturing program is a very diverse pathway for the students. The courses we offer are Materials and Processing, Welding, and Manufacturing. In these classes students are exposed to all areas of machining using both manual and CNC equipment. Students are also trained on all three types of welding machines, welding on both steel and aluminum. We have just introduced a robotics unit after we acquired a retired manufacturing robotic arm.

Auto

The Portage automotive program is an accredited ASE Education Program. We just received or recertification in December. The program is a three level program. Our beginning course, named Power and Energy, gives students the chance to learn the ins and outs of small engines and basic automotive electricity. Towards the end of the school year, with all the knowledge the students learn, we run a maintenance shop on outdoor power equipment. This gives the students a lot of hands-on experience.

The second level is our Automotive Technology 1 class. This class is a crash course through all the major ASE areas. Students get a hands-on lab approach looking at these systems and doing minor automotive repair.





Woods

Our program consists of 2 levels of woodworking. The first class is a semester introduction to woodworking where students learn the basics of wood, safe use of woodworking equipment, wood movement, joints, finishing, squaring stock, glue ups, wood types and various other things.

In the second level, which is a year long class, students build upon the knowledge learned in the intro class to make more advanced projects and eventually whatever they design.



CAD

Our program consists of three levels of CAD classes. The introductory class is a year long class consisting of drawing basics, orthographic projection, hand drafting, modeling real world parts, complex assemblies and taking the Certified Solidworks Associate level test.

Our second level class is another year long class where students are self led in making parts, assemblies, using CAM software to generate toolpaths and possibly taking the Certified Solidworks Professional level test.

Engineering

Our engineering pathway consists of two classes - a semester introduction to engineering and a year long class in engineering.

In the year long Principles of Engineering, students design a cardboard chair that has to hold 200 pounds, learn about basic electricity, logic, program arduinos, and using integrated circuits. The final project of the class is a class project where students work together to make Rube Goldberg platforms to make some toast.

Construction

Our construction program has a three course pathway students can take. They start off with our homeservicing class learning about basic home maintenance, followed by residential construction which is more focused on the entire process of construction. The capstone class is the building trades class. The students in that class are out on a jobsite for two class periods a day building a house. The class currently consists of nine seniors. The building trades program has been a great avenue for students who are interested in getting into the trades. After completing the building trades class, students are exposed to each facet of the residential building process. We do all the carpentry work - framing, windows, roofing, doors, siding, trim, interior doors, cabinets, and install hard surface flooring. As for the trades we do not directly do, such as HVAC, plumbing, electrical, and drywall, the students are around when the sub-contractors come. The students are there to observe, learn, and help where allowed.



Plan now to attend
the 51st WTEA Annual Conference

“Preparing Today’s Students for Tomorrow”

March 4 - 6, 2020 • Chula Vista Resort • Wisconsin Dells



SCHOLARSHIP

Natalie Elfering Awarded WTEA Foundation Scholarship



At the WTEA Awards Banquet on March 6, 2019 Natalie Elfering was awarded the WTEA Foundation Scholarship.

Why I Want To Be A Technology Education Teacher And Who Inspired Me

I want to teach kids how to work with their hands, use their heads, and to apply what they know to their everyday life. The most important trait I have is leadership. I love standing in front of a group of students that want to be taught what I know. This is the exact predicament I was placed in at all our monthly SkillsUSA meetings. Being able to successfully capture the attention of a group of energetic students for half an hour is a rewarding experience. Knowing that I have the power to teach these students and keep them under control, while remaining approachable and fun is ultimately what made me want to go into teaching.

My dad, Duane Elfering, is the first example I had of a technology education teacher. I would not be the person I am today without him. On top of his career, he is also a business owner (D. Elfering Construction), SkillsUSA and WEEVA advisor, runs our family farm, is the "handy man" at church, the Fire District Board President, and a proud father. He is the reason I am going into technology education. When I think of hard work I immediately think of my dad. He is the representation of a hard-working individual who knows how to communicate with all kinds of people. I strive to be just like him. The things I have learned from him need to be passed on to the future generations of students I hope to teach.

High School Activities

I was very involved in high school. I was in nearly every extra-curricular activity I could be a part of. There were also many officer and leadership positions I held in high school.

In the fine arts department, I was in band, choir, and drama. I learned to play the flute in fifth grade and continued to play throughout middle school, high school, and still do in the Marching Pioneers at UW-Platteville. In choir, I sang soprano throughout middle school and high school. I also participated and competed in solo ensemble through both band and choir, where I went on to the state competitions three years with solos. I took voice lessons at a local studio - performing in the studio's recitals - and was the designated "National Anthem" singer at sporting events, including singing at the Kohl Center and Resch Center for the state basketball games. I had other singing gigs in high school and around our community as well. I took on many roles in our drama department too, and enjoyed acting in plays all four years of high school. I graduated with high honors in both band and choir.

In the sporting department, I played volleyball and softball all four years in high school. I was team captain for our volleyball team my junior year. In softball, I played centerfield and, in my junior year, was picked as the 2015 First Team All-Conference Six Rivers-East Outfielder, which is one of the highest honors a high school softball athlete can receive. My senior year, I was a 2016 Honorable Mention All-Conference Six Rivers-East Outfielder. I loved playing softball and have continued to play on an intramural team at UW-Platteville.

Additional organizations I participated in were Mathletes, Yearbook, National Honor Society, tutoring middle school students, SkillsUSA, and was a class officer. I was the head-editor of our senior yearbook where I spent time designing and editing pages along with taking pictures at sporting events and other school activities. I served as secretary for NHS my senior year where I helped plan and organize community service events like blood drives, Christmas giving trees, teacher appreciation gifts, and field days for elementary students. I volunteered to tutor middle school students, under the request of our guidance counselor. I tutored a variety of different subjects, provided support related to home and school issues, and would like to think that I positively influenced the students' conception towards education.

In SkillsUSA, I helped restart our program my junior year and then served as the Vice-President. I helped register students for competitions, conducted meetings, planned and organized fundraisers, helped middle school students create resumes, and organized trips to competitions and contacted teachers to let them know who would be absent. As Class Secretary for four years, I organized our class trip, designed and ordered class T-shirts, was responsible for financial and business matters, collected money, recorded and delivered meeting minutes to classmates and advisors, and am now currently responsible for our class bank account.

Outside of school activities, I was actively involved in our local 4-H club—serving as the President or Secretary depending on the year. I was also a member of the Iowa County 4-H Ambassadors, competed in Livestock Quiz Bowl (qualified for Nationals my junior year), and showed poultry and steers at the Iowa County Fair. I went on a summer trip, Citizenship Washington Focus, through

4-H to Washington D.C. to learn more about our government and what it means to be a citizen of the United States. I also went to Badger Girls State, through the American Legion, that same summer where I learned even more about government at a state level.

At our local Catholic church, I was an altar server and lector, volunteered at many fundraisers, and was an assistant religious education teacher on Wednesday nights. I also went on a mission trip to Mississippi in June 2014 where we constructed and renovated houses, volunteered at a vacation Bible school, and helped collect items for a local food pantry.



Notice:

Due date for next year's WTEA Foundation scholarship application is May 15, 2019.

First Technologies is excited to announce our partnership with:




ConsuLab
TRAINING AIDS

ConsuLab offers a full line up of automotive and heavy vehicle/diesel trainers - from low voltage electronics to today's hybrid engines.

Check out the entire ConsuLab product line at www.consulab.com.

FIRST
TECHNOLOGIES INC.
Putting Education ... FIRST

800.787.9717 • info@firsttech.com • www.firsttech.com

Life Long Learning at WTEA

By William Simonar, UW-Platteville

It was another successful experience at the 2019 Wisconsin Technology Education Association conference. University of Wisconsin-Platteville's Technology Education Association Club had a lot of positive feedback from the conference again this year. Not only is this a time for learning about new teaching methods and new equipment, but this is also a great time to make connections with current educators in the field.



One thing that never fails at the WTEA conference is the discussion between veteran tech ed teachers and current tech ed majors. The knowledge obtained from discussion with veteran teachers is invaluable. Junior Natalie Elfering enjoyed learning how to incorporate entrepreneurship classes into a program. This gives students the opportunity to run their own businesses and develop different ideas to improve it. Natalie was surprised to hear that these types of classes can be taught as early as the fourth grade.

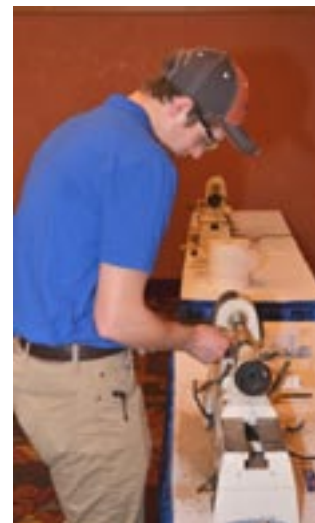
For the students of Platteville, it was a unanimous decision for a favorite break-out session. The new teacher bootcamp is a "must-listen-to" seminar every year. The presentation covers skills and techniques to incorporate in our classrooms from day one. Steve Meyer does a tremendous job every year with this presentation. Something Steve does that keeps bringing students and educators back is the differences in the presentation from year to year. This year Steve's focus was on STEM projects. He brought in samples of these projects, such as a 2"x4" electric guitar and a pizza box circuit board. At the end of the seminar is a Q&A session, where attendees ask their own questions and Steve Meyer, along with other veteran teachers, try their best to answer.



It's always exciting to see the new equipment on display at the trade show. Vendors are always willing to talk with students about equipment such as CNCs, robots, tools, and 3D printers for their classrooms. After attending the trade show, freshman Brock Byington said, "I thought the virtual reality welding machines from Lincoln Electric were really awesome. It would be nice for teaching because of the variety of welding types you can do with just one machine, and the absence of waste."

Dominic Kuhn, a junior, was excited to see that the conference had a session where anyone could go turn a pen. Dominic said, "I have grown an interest for [pen] turning ever since I purchased a mini lathe. The best part about the pens at the conference is that they went to a good cause. I know the veterans on their honor flight will appreciate the small gift and I was happy to make one for them."

The UW-Platteville students had a great learning experience at the conference. The knowledge obtained in these two days at the conference can be compared to a semester in the college classroom. It shows how helpful current educators are able to be. We can't thank them and the WTEA enough for this experience.



The WTEA thanks our conference sponsors.

Support them throughout the school year.

Platinum Level Sponsors



Gold Level Sponsors



Silver Level Sponsors



Bronze Level Sponsor



INDUSTRY 4.0 FOR MIDDLE SCHOOL

Hands-on, project-based learning programs, curriculum and equipment

Topics include:

- Basic Mechatronics
- Autonomous Vehicles & Drones
- Smart Sensors & Devices
- Robotics & Automation
- Computer Science & Coding
- Data Analytics
- Additive Manufacturing

Contact LAB Midwest for more information
(414) 258-6415 www.labmidwest.com



From Northeast Wisconsin to Kansas City and Back

By Dave Stroud, Ashwaubenon High School



Tom Barnhart and Dave Stroud, Technology & Engineering teachers from Ashwaubenon High School recently traveled to Kansas City, Missouri to receive the Program Excellence Award at the International Technology and Engineering Educators Association conference. Accompanying Tom and Dave were Joe Ciontea, Executive Director of the WTEA, Dr. Frank Steck, ITEEA Representative, and Art Pronschinske, District H Director. As a first time attendee of the conference, I was very impressed with the number and variety of topics at the break-out sessions, trade show, STEM Showcase, and live events.

Networking with elementary, middle, high, and post-secondary teachers from around the nation and world was a highlight of the conference. It is always interesting to hear what others are doing at the WTEA conference, imagine that at the national and world-wide scale. We even ran into Mike Fellin, Edward Pilarski, and Ben Zimmerman from Jefferson High School. It was nice having the opportunity to enjoy some barbeque with those gentlemen and hear about what is going on at their school.



We also had time to enjoy the host city. Kansas City always has a lot going on, and while we were there we had some time to get out and explore. We checked out the Harry J. Epstein Co. which is a tool company and Hoarders episode wrapped into one. I can't really explain it, but if you're ever in Kansas City, you have to check it out.



We visited The National WWI Museum and Memorial and brushed up on our history. Art was the only one brave enough to go to the top of the tower.



The highlight of our extracurricular activities had to be attending the NCAA Sweet 16 tournament games. We saw North Carolina take on Auburn, and Kentucky compete against Houston. Even though our seats were in the very last row, it was still an exciting event to attend.

Overall the ITEEA conference was a great experience. Next year's conference is being held in Baltimore, Maryland March 11-14, 2020, the week following the WTEA conference - so make your plans now!

ChallengeUSA News

By Lauri Domer, ChallengeUSA Executive Director

Formerly known as WEEVA or Challenge Wisconsin, we have officially updated our name to ChallengeUSA! ChallengeUSA encompasses our friends from surrounding states. We recently added our fifth official race in Illinois at the Autobahn Circuit Joliet.

ChallengeUSA (CUSA) is a Midwest USA entity including both Electrathon and Supermileage programs. The goal of these programs is to bring attention to the environmental problems of conventional cars and demonstrate the viability of alternative transportation methods such as electric vehicles and/or higher mileage. Both programs provide a means of teaching young people how to evaluate alternatives and make sustainable lifestyle choices, and use a problem-solving discipline to design and build these efficient vehicles, all in a hands-on and team-oriented approach. Students are combining both mental and physical skills through applying Manufacturing and Engineering concepts and equipment to accomplish their tasks.

Check out our new website www.CUSAMotorSports.org for our events schedules and feel free to contact Lauri Domer, Executive Director, of ChallengeUSA at CUSAMotorSports@gmail.com or 920-219-2929.

Upcoming Event Schedule is as follows:

April 12th & 13th UW-Platteville
April 26th & 27th UW-Stout
April 28th & 29th Autobahn Joliet Circuit, IL
May 3th & 4th Fox Valley Technical College
May 13th & 14th Road America



DREMEL[®] DIGILAB



**CONTACT US FOR
ALL YOUR DREMEL 3D
PRINTER NEEDS!**

Schedule a demo in your classroom today!

FIRST
TECHNOLOGIES INC.
Putting Education ... FIRST

800.787.9717 • info@firsttech.com • www.firsttech.com

DPI Stakeholder Engagement and Listening Session

By Dave Stroud, WTEA President-elect

On April 1st the Department of Public Instruction held an Engagement and Listening Session pertaining to the Carl D. Perkins Career and Technical Education Improvement Act (Perkins V, for short) at Northeast Wisconsin Technical College. The session was facilitated by staff from UW-Stout's Emerging Center for Career and Technical Education Excellence, and nearly 40 Technology & Engineering, Business, Agriculture, Family & Consumer Education, CESA, and CTE teachers, staff, and administrators from around Northeast Wisconsin were in attendance. The purpose of the session was for the DPI to get feedback from stakeholders about what students need to be college and career ready upon graduation from high school. No information about Perkins V was shared, instead attendees were split into groups and asked to discuss a series of questions that would then be shared with the DPI. The questions included:

1. What would have helped you be more prepared or helped your students be more prepared for life after high school?
2. What competencies do you believe students need to have in order to be college and career ready by the time they graduate from high school?
3. Have you been involved in developing career and technical education curriculum in your local school district? Please explain the process.
4. What groups of students do you see participating in CTE courses and career and technical student organizations in your local school district? Who has access to these programs? Who doesn't? Why?
5. Did you complete an individual learning plan while in school? If so, how did it impact your education? What do you see as the role of individual learning plans or academic and career plans in education today?
6. What experiential work-based learning or career-based programs are available for students in your district? What experiences have you had with these programs? What factors make a quality work-based learning program?
7. What other thoughts would you like to share with DPI about preparing middle school and high school students for the world of work?

At the conclusion of the session, I felt positive that the DPI was receiving valuable feedback from stakeholders in Wisconsin, and was appreciative that our input will be used to develop the state plan for Perkins V. For more information about Perkins V, please visit <https://dpi.wi.gov/cte/carl-perkins>.

Hands-On MLR
*is designed to empower teachers
and promote student growth.*
-Author Luke Thompson

60
Hands-On Lessons

80
Guided Videos

900
ASE-Style Questions

1400
Full-Color Photos

NEW!

Request a free preview sample today

Please contact Kathy Moehle
kmoehle@g-w.com
708.821.6545

G-W
PUBLISHER

Notice:

If you are not receiving
the Technology Educators
listserve postings,
you can sign up by contacting
Brent Kindred at:
brent.kindred@dpi.wi.gov

LIFE AFTER THE CLASSROOM

Do You Remember John Schrum?

“Every day is like a Saturday!”

I first heard this expression when a colleague was in his last year of teaching. I can honestly say the expression holds true for me. Every day is a blank sheet of paper waiting for you to list your activities. This is what makes retirement so enjoyable. Before retirement, a Saturday was the only day of the week you could plan work to be done around the house - minor repairs, clean windows, cut the lawn, painting, clean the garage, etc. Life in retirement is more relaxed and so easy going that each day is like a Saturday.

My wife Patti and I always loved to travel. Since retirement, we traveled to Alaska, Hawaii, Maine, Florida, California, Washington, Canada, Mexico and many places in between. Over the years we have traveled by air, train, bus, and car.

We try to visit our three children and their families as much as possible. Dan is living in Middleton, Wisconsin. Laurie is living in Lamar, Colorado. Brian, who is in the Navy, is currently living on Coronado Island, California. We have eight grandchildren and enjoy the time we can spend with them.

I currently teach part time in the Driver Education Program in Fond du Lac. The course work for Driver Education was included in an Industrial Safety Minor offered at UW-Stout years ago. The minor in safety provided a great part time job during the summers and also now in retirement. I teach two hours per day or eight to ten hours per week. I have completed over 50 years of teaching classroom and behind the wheel Driver Education.

Early in retirement, MPTC asked to take over a welding class for an instructor who was ill. Well, I enjoyed teaching at that level and continued teaching only one class per semester. I had a chance to team teach with another instructor. We taught special training programs for our local industries. I also learned to use Canvas, which is a software platform for teaching blended and on line courses. I am winding down my work with MPTC and our local school district.



More recently, I have updated my woodworking equipment in the garage. I purchased CNC Router and the CAD/CAM software to machine 2-1/2D surfaces. I belong to a user group that

meets the first Saturday of the month at Rockler in Milwaukee. I look forward to the meetings and yes, I am still learning. I like to apply software operations to create simple



signs and complex two sided machining. Items made with the equipment are for family members, friends, and student scholarship fund drives. It is still enjoyable to problem solve, sketch and draw, work with machines and my hands to create fixtures and make special setups. I always enjoyed the problem solving moments when instructing students.

The WTEA over the decades helped me by sharing ideas, curriculum planning, project ideas and ways to introduce new technology. The WTEA showed me a pathway to learn more about technology. I still follow that path by attending machine and software user groups. I also belong to user groups on Facebook and forums found on the internet. I only machine non-ferrous metals at home if needed, but have been working with wood, Corian and cast acrylic materials.

Since my retirement, I am more aware than ever how much another Tech Ed program was and continues to be a positive, integral part of our curriculum. When I talk to past students about SkillsUSA the feedback is always positive.

Recently, a past VICA student informed me he will be taking a national winner from SkillsUSA to compete in an international competition in Russia. He was a student enrolled in machine shop, served an apprenticeship while working for G&L and currently chairs our Wisconsin Precision Machining Contest.

For me, retirement is having quality time to enjoy life with my family and friends for as long as I can.



Understanding Your Annual ETF Statement of Benefits

By Doug MacKenzie, Retired Tech Ed Teacher

Note: The author is not an authority nor does he represent the ETF. This information is based upon his understanding from his own experiences and research.

At this time of year you receive your Annual Statement of Benefits from the Wisconsin Department of Employee Trust Funds (ETF). In recent years this statement has become much easier to understand and includes more information than past years. As you look at your statement, keep in mind that the information is accurate through last December 31.

1. Earnings and Service

This section shows the amount you earned during the previous calendar year and years of service credited to your account.

2. Years of Service

As of January 1, your total years of creditable service is shown. You will see that your years before 2000 and after 1999 are listed separately. That's because your retirement benefit is calculated slightly differently for your years of service prior to 2000.

3. Employee Required Contributions

This section shows your account balance. It consists of your previous balance, interest earned last year, and required contributions you made last year. If you have any money in the variable fund, that is shown as well. Variable fund participation is voluntary, so you may not have any money in that fund.

4. Additional Contributions

This section shows any extra contributions you may have made. This is a good retirement investment since the interest earned is better than what your bank can offer. However, it must be remembered that you cannot withdraw any of this money until you terminate employment.

5. Beneficiary Designation

The person you named as the beneficiary of your account upon your death is shown along with the date you named that person. It is your responsibility to keep this up to date as you experience changes in your life.

6. Separation Benefit

If you terminate employment as a teacher before age 55, you can withdraw the money you contributed plus the accrued interest.

7. Death Benefit

If you die while your account is active, meaning that you are still employed as a teacher, your beneficiary receives an amount of money equal to your entire account balance. That includes your contributions, your employer's contributions and all interest earned. However, if you die while no longer employed as a teacher but before retirement, the benefit is limited to only your contributions plus interest.

8. Formula Benefit Data

This section shows your three highest years of earnings with the average monthly earnings for those three years. This is used in calculating your retirement benefit. The three years are calendar years - not school years. They do not have to be consecutive years and can be any three years of your career.

9. Money Purchase Balance

This shows the total of your account including your contributions, your employer's contributions and interest.

10. Retirement Benefit Projections

When calculating your retirement benefit, the ETF uses both a Money Purchase method and a Formula method. The one that provides you with the higher benefit is the one they will actually use. This section shows what is used in calculating your benefit by both methods and your benefit if you are currently at retirement age. As you add years of service and contributions these numbers will rise.

My Observations

In most cases, if you retire at age 57 or older with at least 31 years of service, using the Formula method you can expect your benefit to be approximately one half of what you are earning at the time of retirement. The Money Purchase method works better for teachers retiring at an older age, perhaps at least 60, and usually with more than 35 years of service. It is possible to have a retirement benefit equal to or greater than your salary prior to retirement.



Plan now to attend the 51st WTEA Annual Conference

"Preparing Today's Students for Tomorrow"

March 4 - 6, 2020 • Chula Vista Resort • Wisconsin Dells





Flexible Manufacturing Systems (FMS)



Bridging the gap between classroom & industry!

Smart Factories and **Industry 4.0** embody the transformation at the forefront of modernizing manufacturing processes to keep competitive in this fast-changing world. Employers need workers who are tech literate, process savvy, and natural problem solvers to take a role in the on-going design and improvement of manufacturing systems.

Intelitek's FMS (Flexible Manufacturing System) solutions are designed to provide relevant skills and introduce technical and engineering classrooms to the industrial automation and industry applications needed in modern plants.

Intelitek integrated curriculum encompass design, hands-on experience, project-based learning, and theory to deliver job ready graduates for industry.

Contact us today for more information!

FIRST
TECHNOLOGIES INC.
Putting Education ... FIRST

800.787.9717 • info@firstech.com • www.firstech.com

WTEA
P.O. Box 531
Kishwaukee, WI 54501

CHANGE SERVICE REQUESTED

PERMIT. STD.
U.S. POSTAGE
PAID
Permit #24
Stoughton, WI

THANK YOU FOR VISITING US AT WTEA!

LAB
Midwest

The 50th annual WTEA conference had so many excellent speakers and presentations. We enjoyed connecting with each instructor and administrator during the show.

For information on any of the technical education solutions we featured at WTEA, contact us at:

www.labmidwest.com

(414) 258-8415

