

# Creating a Future Ready School District

Preparing Students For 2035 And Beyond

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# Creating a Future Ready School District

**THE WHY**

The Why



History and  
Challenges



Focusing  
Resources



Solutions  
and Results



Questions &  
Answers

**The Why**

**THE WHY**

# START

HOW GREAT LEADERS INSPIRE  
EVERYONE TO TAKE ACTION

# WITH

SIMON SINEK

*New York Times* bestselling author of *Leaders Eat Last* and *Together Is Better*

# WHY

MORE THAN  
ONE MILLION  
COPIES SOLD

## The Golden Circle

### WHAT

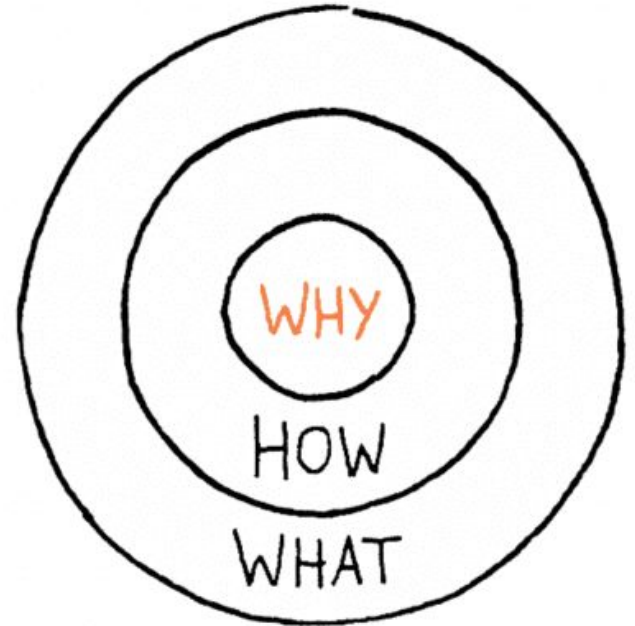
Every organization on the planet knows WHAT they do. These are products they sell or the services

### HOW

Some organizations know HOW they do it. These are the things that make them special or set them apart from their competition.

### WHY

Very few organizations know WHY they do what they do. WHY is not about making money. That's a result. WHY is a purpose, cause or belief. It's the very reason your organization exists.



THE WHY

**FUTURE**





**Make Oshkosh A Destination  
Community to Live, Work,  
Learn, and Play!**

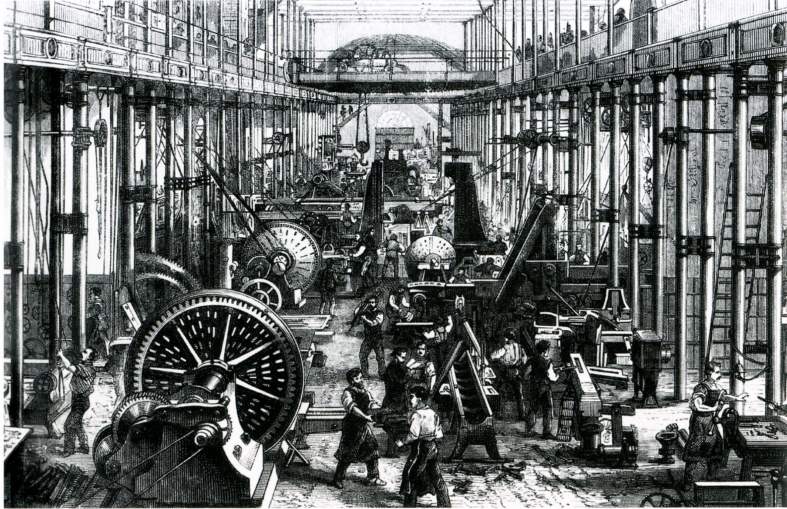
A green rectangular sign with rounded corners and a white border is mounted on two wooden posts. The sign features the text "Welcome To The Future" in white, bold, sans-serif font. The background is a bright blue sky filled with fluffy white clouds.

Welcome To  
**The Future**

# 4th Industrial Revolution

(Industry 4.0)

## 1st Industrial Revolution



Mechanization and Steam Power  
Generation (18th-19th Century)

## 2nd Industrial Revolution



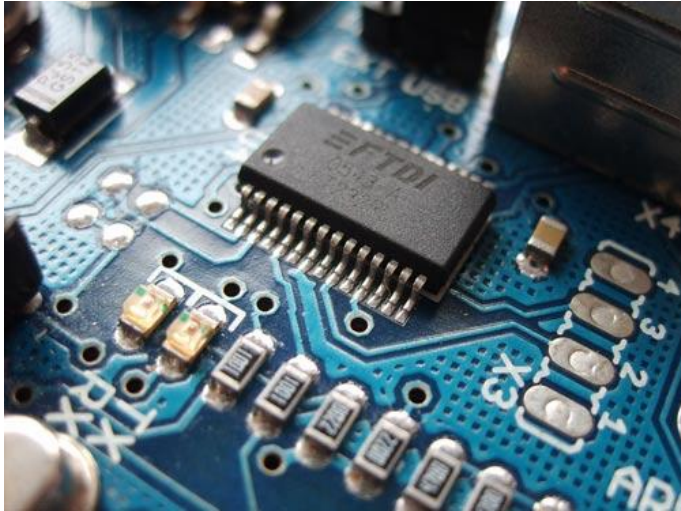
Mass Production Using Electricity  
(19th and early 20th Century)



# 4th Industrial Revolution

(Industry 4.0)

## 3rd Industrial Revolution



Digital Revolution and Automation  
(Late 20th Century)

## 4th Industrial Revolution



Robotization, Nanotech, IoT, and A.I.

**“The speed of current breakthroughs has no historical precedent. When compared with previous industrial revolutions, the Fourth is evolving at an exponential rather than a linear pace. Moreover, it is disrupting almost every industry in every country.”**

(Klaus Schwab, Founder and Executive Chairman, World Economic Forum)

**THE WHY**

# Evolution of Top 10 Skills

Source: Future Jobs Report, World Economic Forum and NEWDA CS Meeting 5.4.22

## 2015 Top 10 Skills

1. Complex Problem Solving
2. Coordinating with Others
3. People Management
4. Critical Thinking
5. Negotiation
6. Quality Control
7. Service Orientation
8. Judgement and Decision Making
9. Active Listening
10. Creativity

## 2020 Top 10 Skills

1. **Complex Problem Solving**
2. **Critical Thinking**
3. **Creativity**
4. People Management
5. Coordinating with Others
6. Emotional Intelligence
7. Judgement and Decision Making
8. Service Orientation
9. Negotiation
10. **Cognitive Flexibility**

## 5.4.2022 NEWDA Mtg

Fred Barrionuevo, Emerging Technology and AI Lead  
Impact Networking

1. **Looking @ degrees less**
2. **Data Skills Needed**
  - a. Read Data
  - b. Work w/Data
  - c. Analyze Data
  - d. **Argue w/Data**
3. **Translate Skills Needed**
  - a. Verbal literacy
  - b. Numerical literacy
  - c. **Graphical literacy**

**THE WHY**



The **2021 Wisconsin Manufacturing Report**



**2019 NEW MANUFACTURING ALLIANCE NEEDS,  
SKILLS, & TALENT SURVEY**

2019

Executive Summary, Frequency Questionnaire, and  
Open-Ended Comments

# Data is the Next Frontier for Manufacturing

Join the data-driven revolution.

Data and analytics have changed the game in ways that almost seem impossible. These days, the world's most valuable resource isn't something that can be formed into a shape. Well, not exactly.

This eBook takes a deep dive into how data can serve your manufacturing business.

- Learn about the three types of analytics.
- See how data can bridge communication gaps within an organization.
- Reimagine your research and development.
- Create more links to your supply chain.
- Integrate analytics with smart factory capabilities.

**THE WHY**

# Summary

1. Many companies do not have an implementation plan for Industry 4.0.
2. New Technologies with future impact on operations:
  - a. Process Monitoring and Connectivity,
  - b. Mobile Friendly UI
  - c. Robotic Vision Systems.
3. Physical production and operations are being married to machine learning, big data, and smart digital technology (Artificial Intelligence, IoT, Predictive Modeling, and Robotic Visions systems)
4. The labor shortage is a huge challenge driving automation investments
5. Core concerns are rising costs, supply chain, and **cybersecurity**

# History and Challenges



# Areas of Challenge

1. **Technology**
2. **Guaranteed, Viable, and Future Focused Curriculum**
3. **Facilities to support modern learning**

# Areas of Challenge

1. **Technology**
2. **Guaranteed, Viable, and Future Focused Curriculum**
3. **Facilities to support modern learning**

# Where We Came From - Our Challenges

- **District severely under-resourced in all areas including Technology**
- No technology leadership for 2 years
- 6 separate phone systems / Exchange outages / No home access
- **No laptops (luxury items)**
- **Outages led to limited student use and community frustration**
- Interim Superintendent 2 years and 5 Business Mgr in 4 years
- **16 of 33 new administrators hired in 2010 including Superintendent and 4 of 7 cabinet members**
- **Multiple failed referenda**





# Areas of Challenge

1. Technology
2. **Guaranteed, Viable, and Future Focused Curriculum**
3. Facilities to support modern learning

# OASD Curriculum Challenges

- **Lack of curricular space K-8 (Literacy/Math Focus)**
- **Belief that CS Scope/Sequence will “pass”**
- **K-5 progress but Grade 6-8 gap remains**
- **Result: Lack of interest in grade 9-12 pathways**
- **CS trained teacher shortage (train our own)**

# Areas of Challenge

1. Technology
2. Guaranteed, Viable, and Future Focused Curriculum
3. Facilities to support modern learning

# Building Cost / Benefit Analysis Study

## District Overview - Building Summary

Elementary Schools	Year Built/# of additions	Cost to update/improve safety, building systems and address ADA	Student Enrollment
Read	1880, 7 additions	\$3.8 million	317
Merrill	1900, 5 additions	\$5.3 million	266
Roosevelt	1923	\$5.3 million	250
Lakeside	1939, 4 additions	\$2.3 million	281
Oakwood	1953, 4 additions	\$5.2 million	410
Emmeline Cook	1955, 3 additions	\$1.75 million	258
Webster	1955, 4 additions	\$3.2 million	257
Washington	1957, 2 additions	\$3.6 million	196
Franklin	1957, 1 addition	\$2.76 million	418
Shapiro STEM Academy	1970	\$3.7 million	212
Carl Traeger	1997	\$2.5 million	481
Jefferson	2000	\$1.2 million	271
Oaklawn	2013	N/A	416
<b>Middle Schools</b>			
Merrill	1900, 5 additions	\$8.2 million	513
South Park	1904, 2 additions	\$8.8 million	413
Webster	1955, 4 additions	\$4.4 million	404
Perry Tipler	1967, 1 addition	\$5.2 million	330
Carl Traeger	1997	\$2.5 million	492
<b>High Schools</b>			
Oshkosh West	1961, 3 additions	\$27.6 million	1639
Oshkosh North	1972, 1 addition	\$19.0 million	1207
		<b>Total \$116.0 million</b>	

### INCLUDES:

- **Repairs / replacement** to existing building systems (boilers, plumbing fixtures, electrical service/panels, heating equipment)
- **Materials** (exterior masonry, windows, doors, walls), finishes (flooring, ceilings, tile), roofing, exterior hardscape (parking lots, playgrounds, sidewalks), etc.
- **Addition and/or renovation** to address building safety / security needs.

### DOES NOT INCLUDE:

- Building additions and/or renovation for capacity, space, and/or educational needs.
- Adding air conditioning to buildings currently without.

*The budget is based on 2020 construction costs with inflation projected out to an anticipated 2021 construction.*

# Focusing Resources



# Building Community Through Education



OSHKOSH CHAMBER OF COMMERCE





**OSHKOSH**  
AREA SCHOOL DISTRICT

# Strategic Plan 3.0 2019-2024

- Created by YOU
- Focus and guide ALL resource allocation
- Reviewed weekly at cabinet meetings
- Community annual report and dashboard







**Goal 1: Improve Student Learning for All to Ensure College, Career, and Community Ready Graduates**



**Goal 2: Operational Efficiency**



**Goal 3: Dedicated and High Performing Team Members**



**Goal 4: Safe Learning and Working Environment**



**Goal 5: Sustain and Strengthen Community Engagement**



# Goal 1: Improve Student Learning for All to Ensure College, Career, and Community Ready - 70%

Priority	Description	1.2021	4.2022
1P1	Narrow Opportunity Gaps	41%	56%
1P2	Provide Professional Development to Support ALL Students	27%	70%
<b>1P3</b>	<b>Create a Future Ready School System</b>	83%	95%
1P4	Accelerate Student Learning/Performance/Growth	24%	55%
1P5	Integrate Social Emotional Learning and Life and Career Skills to Meet the Needs of the Whole Child	25%	64%



## Goal 2: Operational Efficiency - 74%

Priority	Description	1.2021	4.2022
2P1	Maximize Efficiencies of Facilities	11%	76%
2P2	Create an Accessible and Accurate Budget to Build Trust and Clearly Communicate with Stakeholders	19%	100%
2P3	Build and Use Systems Protocols and Processes to Improve Efficiencies	18%	63%

# Solutions and Results



# Solutions and Results

- 1. Technology**
2. Guaranteed, Viable, and Future Focused Curriculum
3. Facilities to support modern learning



# Rapid Infrastructure Improvements



# 2022 OASD IT at a glance...

- 20 physical sites connected via 60GB fiber backbone
- 9,200 student, 1,200+ staff, and 17,000 parent users
- Cisco Switch and WiFi with Cisco ISE (910 WiFi AP's)
- 1,200 security cameras with 9 video servers (800 TB)
- 600 Windows Workstations
- 10,000 Chromebooks for staff and students
- 800 Classrooms equipped with Chromebox, IWB, Audio, HD Camera
- 1,200 IP phones (ShoreTel)
- Palo Alto Firewall, Cynet EDR, and InfosecIQ Phishing/PD

# Reinventing IT Strategy to *Learning without Limits*

**Cybersecurity Focus**

**High Capacity Infrastructure**

**Ubiquitous and Dependable Services**

**Reinvented Support Systems**

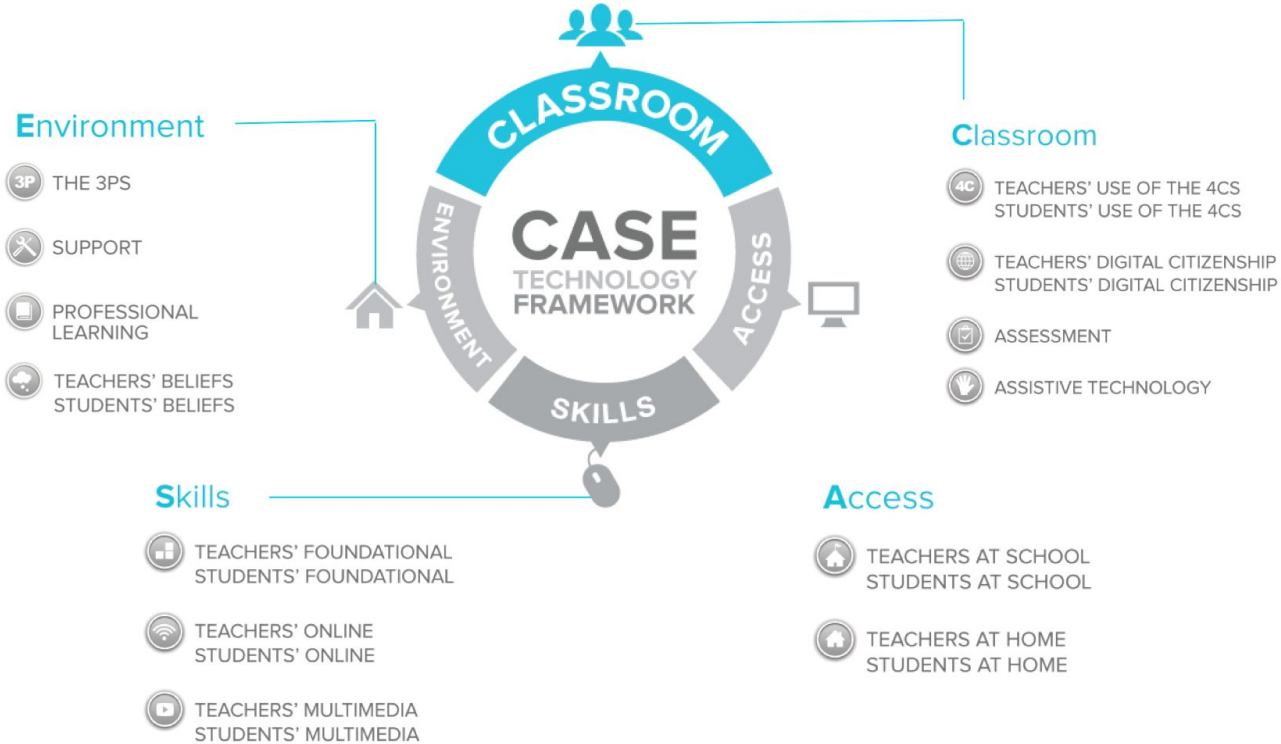
**Embedded Professional Development**

**Data and Predictive Analytics**

**Cultivate Community Partnerships (Amplify)**



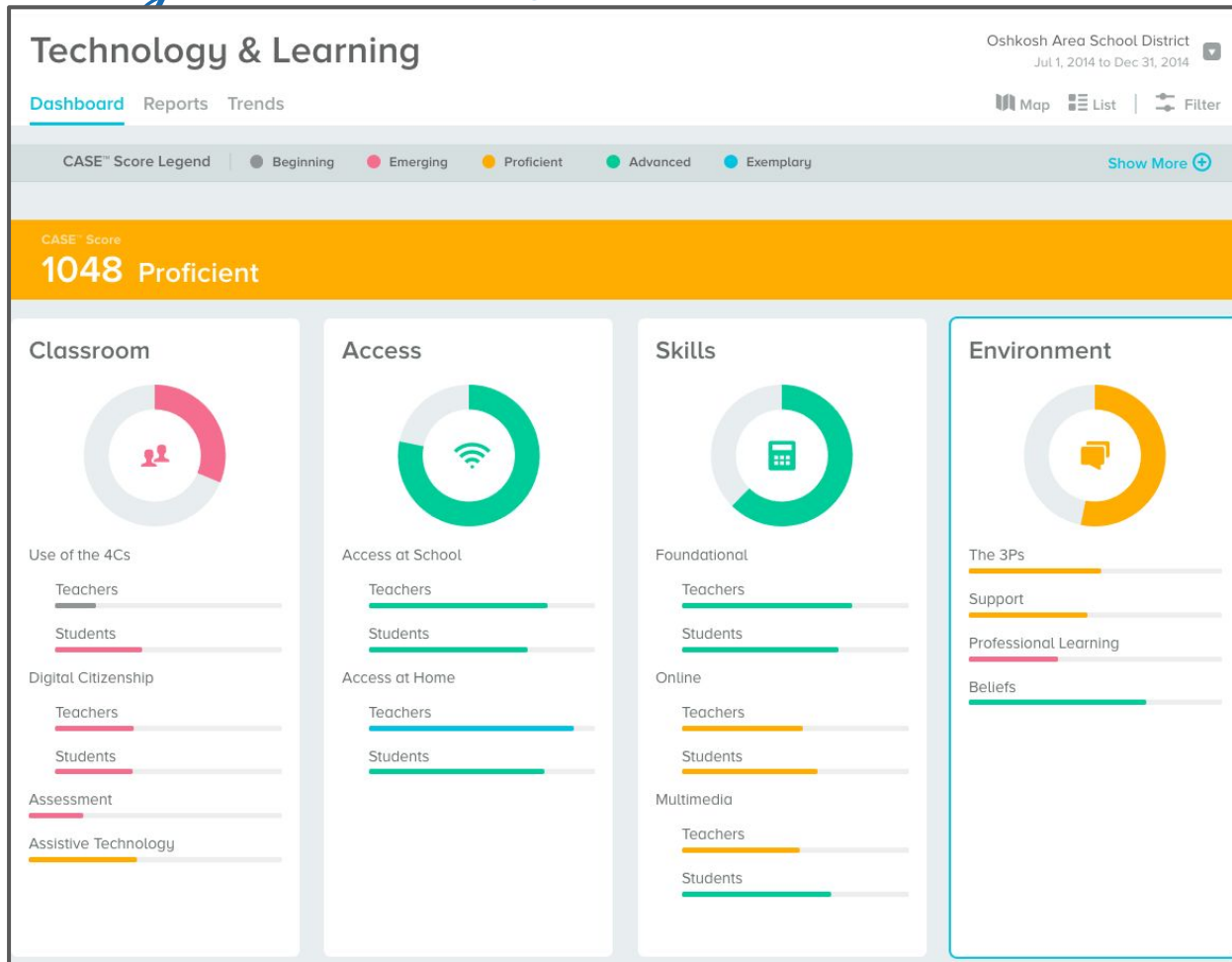
# Brightbytes Data - More than test scores



Score Legend	
<span style="color: #00AEEF;">●</span>	Exemplary 1200-1300
<span style="color: #00C853;">●</span>	Advanced 1100-1199
<span style="color: #FFC000;">●</span>	Proficient 1000-1099
<span style="color: #E91E63;">●</span>	Emerging 900-999
<span style="color: #666666;">●</span>	Beginning 800-899

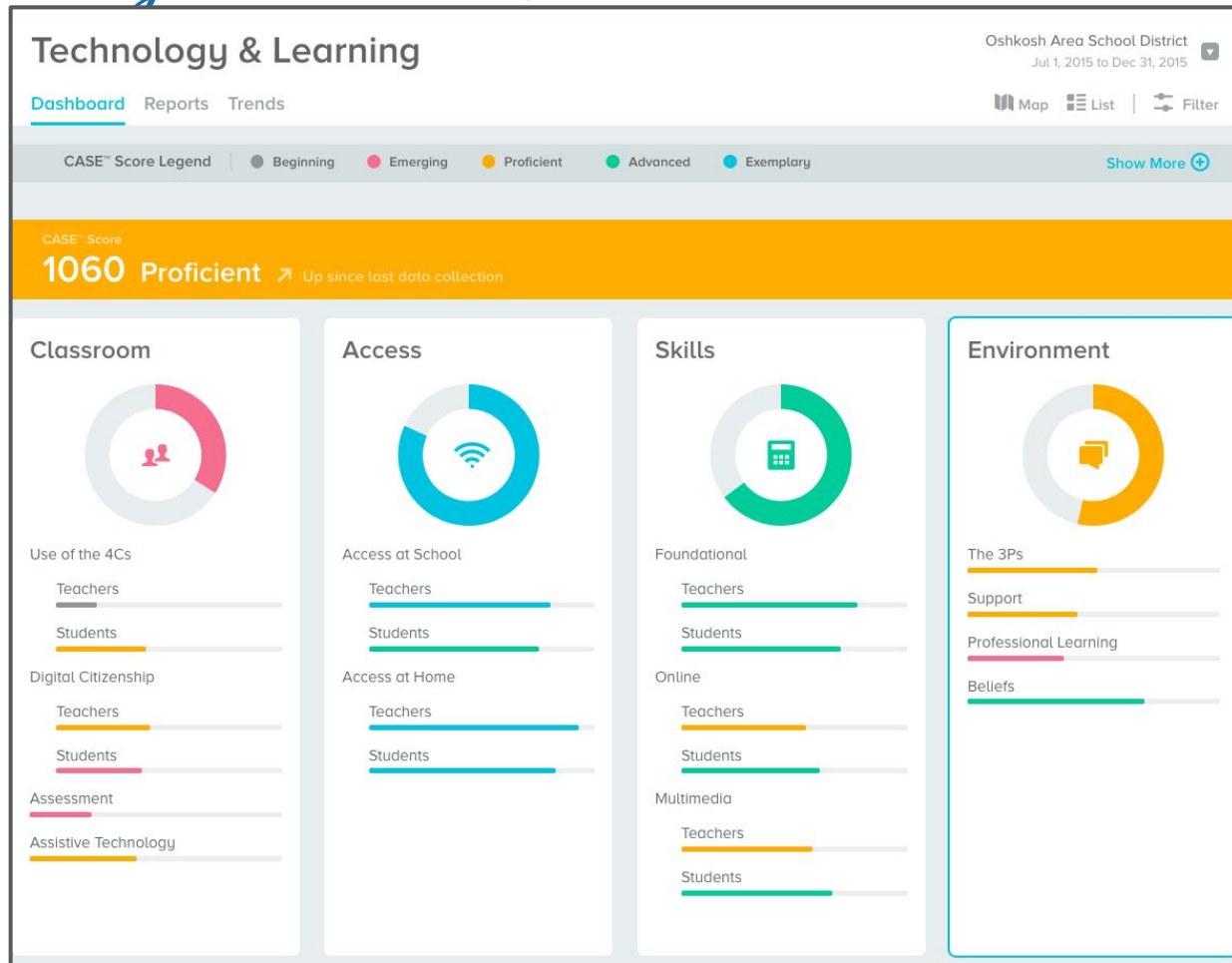
# Learning without Limits

## Brightbytes Data Fall 2014



# Learning without Limits

## Brightbytes Data Fall 2015



# Learning without Limits

## Brightbytes Data Fall 2016



# Learning without Limits

## Technology & Learning

Oshkosh Area School District  
Jul 1, 2018 to Dec 31, 2018

[Dashboard](#) [Reports](#) [Trends](#)

[Map](#) [List](#) [Capture](#) [Filter](#)

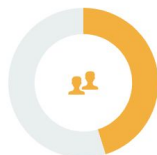
CASE<sup>™</sup> Score Legend | ● Beginning ● Emerging ● Proficient ● Advanced ● Exemplary

[Show More](#)

CASE<sup>™</sup> Score

**1092 Proficient** ↗ Up since last data collection

### Classroom



#### Use of the 4Cs

Teachers

Students

#### Digital Citizenship

Teachers

Students

#### Assessment

#### Assistive Technology

### Access



#### Access at School

Teachers

Students

#### Access at Home

Teachers

Students

### Skills



#### Foundational

Teachers

Students

#### Online

Teachers

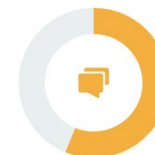
Students

#### Multimedia

Teachers

Students

### Environment



#### The 3Ps

#### Support

#### Professional Learning

#### Beliefs

**Brightbytes Data  
Fall 2018**

# Learning without Limits

## Technology & Learning

Oshkosh Area School District  
Jan 1, 2021 to Jun 30, 2021

[Dashboard](#) Reports Trends

Map List Capture Filter

CASE™ Score Legend ● Beginning ● Emerging ● Proficient ● Advanced ● Exemplary

Show More

CASE™ Score

**1100 Advanced** ↗ Up since last data collection

### Classroom



#### Use of the 4Cs



#### Digital Citizenship



#### Assessment



#### Assistive Technology



### Access



#### Access at School



#### Access at Home



### Skills



#### Foundational



#### Online



#### Multimedia



### Environment



#### The 3Ps



#### Support



#### Professional Learning



#### Beliefs

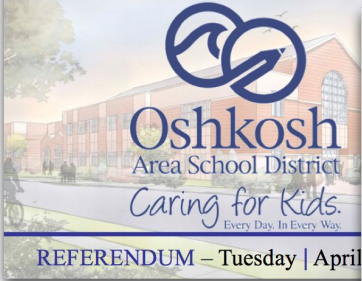


**Brightbytes Data  
Spring 2021**

# Community Support

(4 community referenda in 8 years)

New Oaklawn Elementary School  
on the Existing Site



2014 Referendum For Learning

April 1, 2014

\$13 Million  
Referendum  
**Passed 70%**

\$4 Million x 7 Year  
Referendum  
Operations + LWOL  
**Passed 59%**



2016 Referendum For Learning

April 5, 2016

\$4 Million x 7 Year  
Referendum  
Operations +  
Security  
**Passed 59%**



\$107 Million  
Referendum  
Operations +  
Capital  
**Passed 57%**

# Solutions and Results

1. Technology
2. **Guaranteed, Viable, and Future Focused Curriculum**
3. Facilities to support modern learning



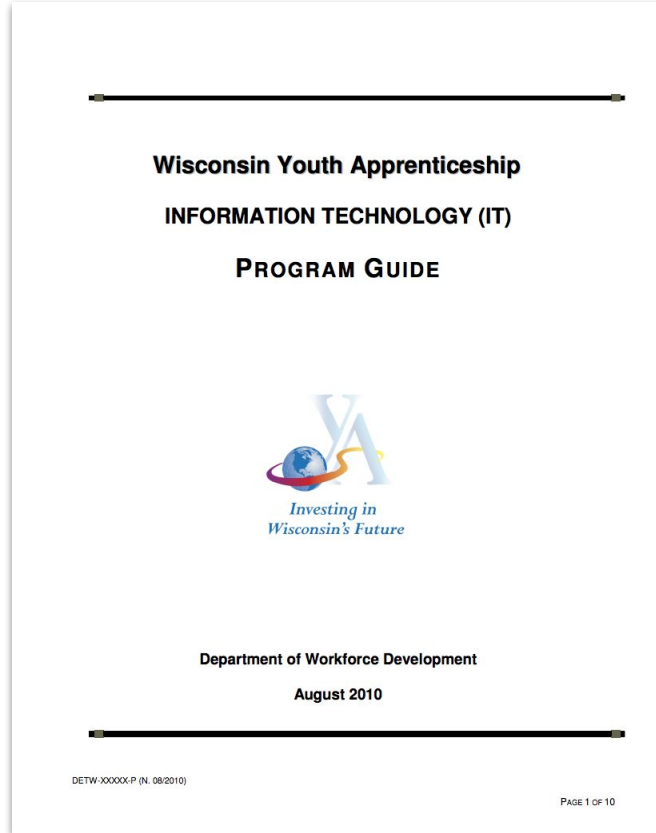


# OASD Curriculum

- Adoption of code.org for K-12 Scope/Sequence
- Created “bridge” Course Digital Life Skills Grade 6
- Working with Tech/Eng to create grade 7 course
- Integrating CS standards in grade 7 and 8 Science
- North and West HS run TEALS leading to AP CS
- North HS Cyber Range for 22-23



# IT Youth Apprenticeship



Department of Workforce Development  
Division of Employment and Training

## Information Technology (IT) Skill Standards Checklist

Student Name	School District
YA Coordinator	YA Consortium
High School Graduation Date	

**Certification Areas Completed:**  
**Required Skills - For EACH Pathway**  
**Check ✓ completed areas**

- Core Skills
- Safety & Security

**General IT Pathway**

- IT Essentials Unit

**Network Systems and Information Support & Services Pathway**

- Hardware Unit

**Programming & Software Development and Information Support & Services Pathway**

- Software Unit

**Web & Digital Communications Pathway**

- Web & Digital Media Unit

**Level One Requirements:**  
*Students must complete ALL listed below*  
**Check ✓ completed areas**

- Required Skills
- Minimum of **ONE** Pathway Unit
- Minimum of 2 semesters related instruction
- Minimum of 450 work hours

**Level Two Requirements:**  
*Students must complete all listed below*  
**Check ✓ completed areas**

- Required Skills
- Minimum of **TWO** Pathway Units
- Minimum of 4 semesters related instruction
- Minimum of 900 work hours



## Examples

Ensuring Students Are College, Career, and  
Community Ready 2030 And Beyond



# K-2 Coding/Robotics Controlling Movement



# 3-5 Coding/Robotics Angles and Geometry



# 6-8 Coding/Robotics Slope (Rise/Run)



# 6-8 Virtual Reality Field Trips - South America



# Solutions and Results

1. Technology
2. Guaranteed, Viable, and Future Focused Curriculum
3. Facilities to support modern learning

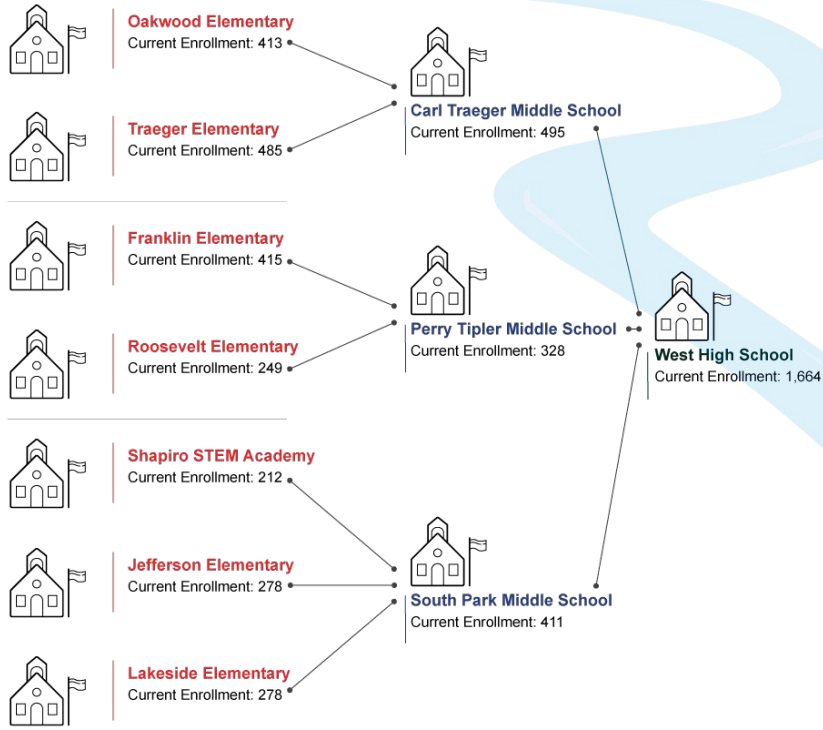




# 2P1 - Maximize Efficiency of Facilities

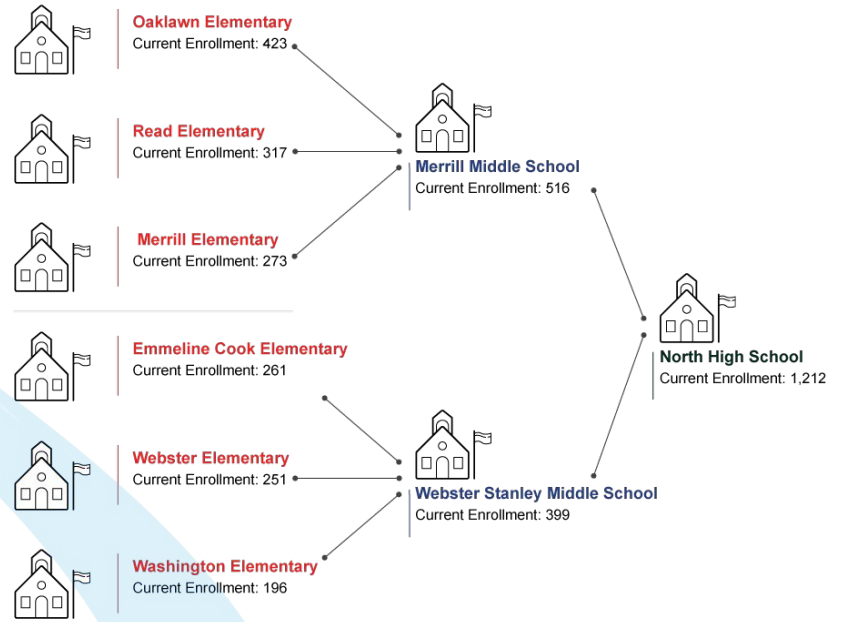
## WEST DISTRICT ORGANIZATION CHART

## NORTH DISTRICT ORGANIZATION CHART



2,330 | Total Elementary Students

1,234 | Total Middle School Students



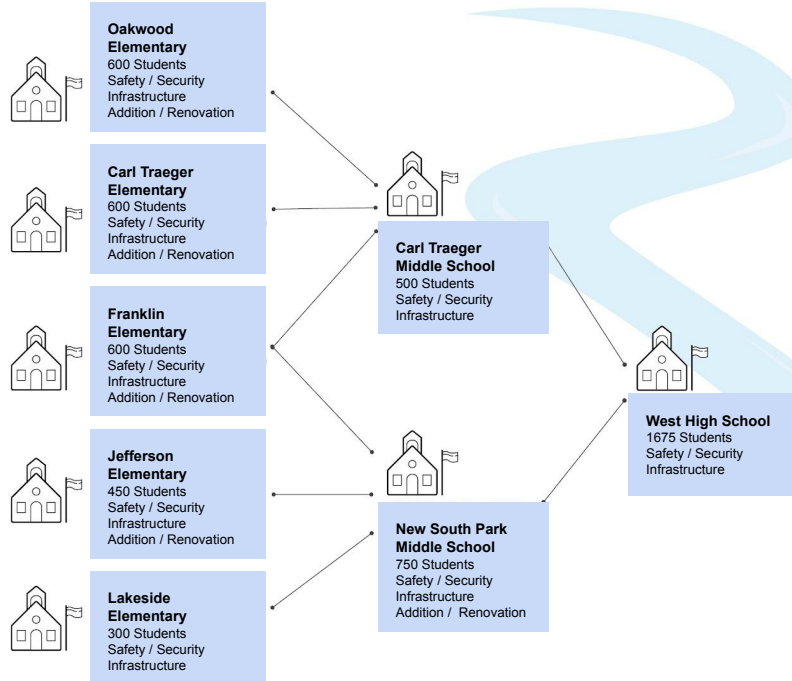
1,721 | Total Elementary Students

915 | Total Middle School Students

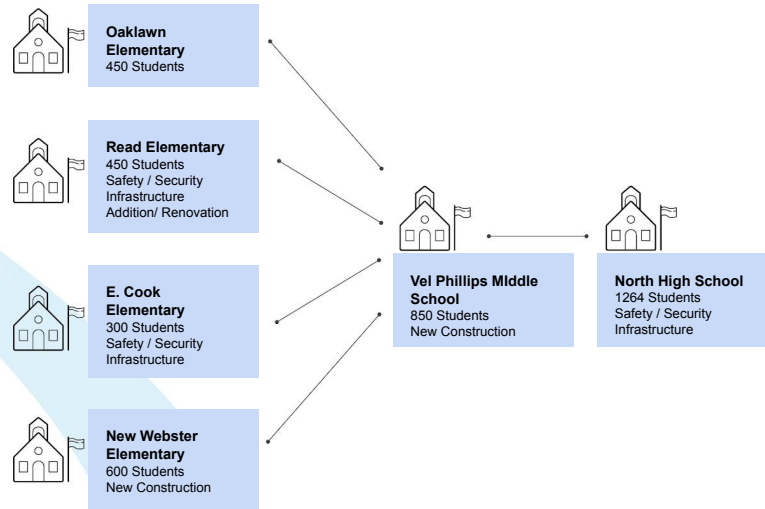


# 2P1 - Maximize Efficiency of Facilities

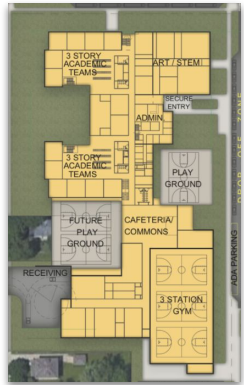
## WEST DISTRICT ORGANIZATION CHART



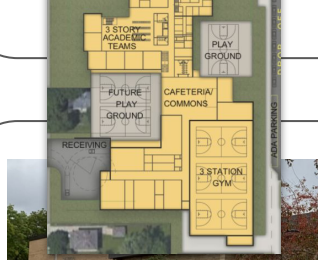
## NORTH DISTRICT ORGANIZATION CHART



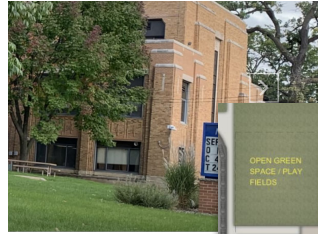
# 2P1 - Maximize Efficiency of Facilities



**NEW Middle**  
Open Fall 23



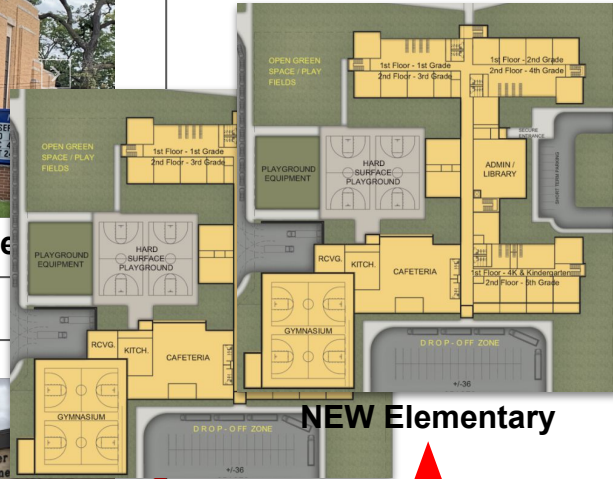
**NEW Middle**  
Webster Middle



**Merrill Elementary**



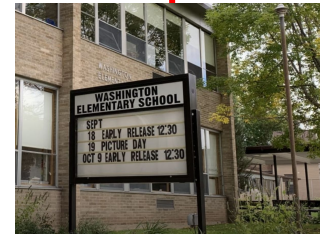
**Webster Elementary**



**NEW Elementary**

**NEW Elementary**

Open Fall 24



**Washington Elementary**  
OSHKOSH  
AREA SCHOOL DISTRICT

**5 Sch 2 Schools on 2 Sites**



# Multi-Phased Approach

## Phase Two

1. **Replace South Park Middle School**
2. **Modernize multiple elementary schools to handle additional students**
3. **Repurposing of Tipler Middle School and Shapiro STEM Academy**
4. **Closure of Roosevelt Elementary School, Shapiro STEM Academy, and Tipler Middle School**

# Multi-Phased Approach

## Phase Three

1. Oshkosh West High School renovation or replacement

## Phase Four

1. Oshkosh North High School renovation or replacement

# Modern Learning Spaces - Vel Phillips MS



# Cafeteria Commons



# Cafeteria Commons





# Events Lobby - Exterior



# Events Lobby - Interior



# Collab Spaces - Classroom Neighborhoods



# Collab Spaces - Classroom Neighborhoods



# Media Center



# Collaboration Spaces - Media Center



# Maker Space - Media Center/Recording Studio



# Paul Poberezny STEAM LAB





# Paul Poberezny STEAM LAB



# NEW Elementary School



# NEW Elementary School



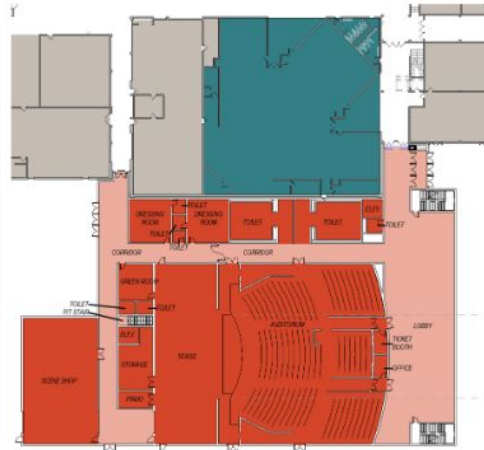
# What's Next?



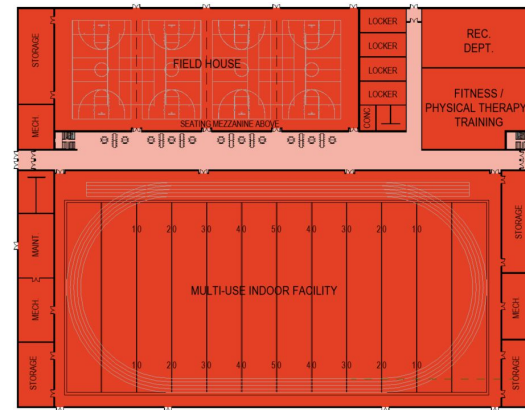
# Comprehensive FAC Work Continues...



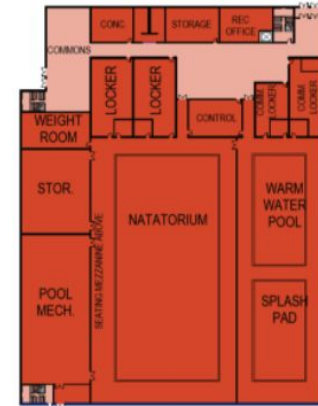
**Athletic Performance  
Facilities**



**Fine Arts Facilities**



**Indoor Athletic  
Facilities**



**Aquatic Center  
Facilities**

**FUTURE**

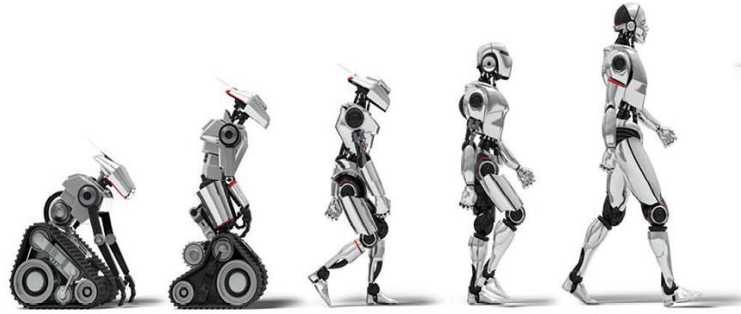


# How Do We Prepare Students For Their Future?



*A good hockey player skates to where the puck is, a great hockey player skates to where the puck is going to be*

*~Wayne Gretzky*



# Creating a Future Ready School District

## Preparing Students For 2035 And Beyond

**Dr. David Gundlach**

Deputy Superintendent  
Oshkosh Area School District

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