



# Implementing NGSS

Dr. Pam Jones, Director of Curriculum and Assessment

Julie Hilker, Science Curriculum Leader

Sharon Moats, Science Curriculum Leader

*Chippewa Valley Schools*



**2013-14**  
**Setting**  
**the**  
**Stage...**

## Coherence

- Created positions dedicated to curriculum & assessment
- Created a district common curriculum vision
- Requirement of district common exams
- Implementation of Rubicon Atlas



**2014-15**  
**Setting**  
**the**  
**Stage...**

## Creating Momentum

- Began developing strategic plan and district accreditation
- Prioritized/focused work in grades and subjects
- Curricular leaders connected frequently with Mike Klein and Jennifer Gottlieb, MISD Science Consultants



# Laying the Foundation

Sharon & Julie  
attended NGSX  
Facilitators'  
Training with  
Mike



- Partnered w/ MISD to offer 5 sessions of NGSX
- Asked for volunteers to attend
  - Initiated MS & HS steering committees



## 2016-17 Creating Momentum

- MS & HS steering committees met throughout year
- Continued NGSX cohorts
  - All MS & HS teachers
- Developed scope and sequence
  - Looked at various models available
- Tackled concerns / issues / transition plan

# NGSS Implementation Models

## MS

- Examined bundles
- Attended vendor's symposium
- Began writing units
- Investigated and purchased IQWST

## HS

- Examined bundles
- Determined course sequence and tentative implementation timeline
- Looked at curriculum resources

# Middle School: IQWST

<p>LEVEL 1</p>	<p>Physical Science</p> <p><i>Can I Believe My Eyes?</i> Light, its role in sight and its interaction with matter</p>	<p>Intro to Chemistry</p> <p><i>How Can I Smell Things From A Distance?</i> Particle nature of matter</p>	<p>Life Science</p> <p><i>Where Have All the Creatures Gone?</i> Organisms and ecosystems</p>	<p>Earth Science</p> <p><i>How Does Water Shape Our World?</i> Water and rock cycles</p>
<p>LEVEL 2</p>	<p>Intro to Chemistry</p> <p><i>How Can I Make New Stuff from Old Stuff?</i> Chemical reactions and conservation of matter</p>	<p>Physical Science</p> <p><i>Why Do Some Things Stop While Others Keep Going?</i> Transformation and conservation of energy</p>	<p>Earth Science</p> <p><i>What Makes the Weather Change?</i> Atmospheric processes in weather and climate</p>	<p>Life Science</p> <p><i>What is Going On Inside Me?</i> Body systems and cellular processes</p>
<p>LEVEL 3</p>	<p>Earth Science</p> <p><i>How is the Earth Changing?</i> Geological processes</p>	<p>Life Science</p> <p><i>Why Do Organisms Look the Way they Do?</i> Heredity and natural selection</p>	<p>Physical Science</p> <p><i>How Will It Move?</i> Force and motion</p>	<p>Intro to Chemistry</p> <p><i>How Does Food Provide My Body with Energy?</i> Chemical reactions in living things</p>

# And the HS decision is...


YEAR	COLLEGE & CAREER READY PATHWAY	SCIENCE, ENGINEERING, MEDICAL PATHWAY
9	BIOLOGY	BIOLOGY or HONORS BIOLOGY
10	Physics I AND Chemistry I	Physics I or Honors Physics I AND Chemistry I or Honors Chemistry I
11*	Earth I AND Earth II (Space)	Earth I or Honors Earth I AND Earth II (Space) or Physics II (Space) or Chemistry II (Space)
12	<i>Recommended/Optional: Take <u>ONE</u> of the following:</i> Physics II Chemistry II Environmental Science I Environmental Science II FORENSIC SCIENCE ANATOMY & PHYSIOLOGY (DHS) HUMAN BIOLOGY (CVHS)	<i>Take <u>ONE or more</u> of the following:</i> AP BIOLOGY AP CHEMISTRY AP PHYSICS AP ENVIRONMENTAL FORENSIC SCIENCE ANATOMY & PHYSIOLOGY (DHS) HUMAN BIOLOGY (CVHS) Physics II or Chemistry II MEDICAL CAREERS 2 / ANATOMY IN HEALTH AND DISEASE
	<i>Total Credits: 3.0 to 4.0</i>	<i>Total Credits: 4.0 or more</i>

\* Tentative: pending

Lowercase = Semester course (0.5 credit)

UPPERCASE = FULL YEAR COURSE (1.0 CREDIT)





**2017-18  
Change,  
Change,  
Change**

---

**Implement IQWST grade 6-8**

---

**Implement NGSS Biology 9<sup>th</sup>**

---

**Planning for 10<sup>th</sup> grade  
change to Chem I & Physics I**

---

**Continued NGSX:  
special ed., elementary teachers,  
new teachers**

---

**Involve stakeholders:  
administrators, counselors,  
parents**

**2018-19**  
**Continuing**

**Implementing 10<sup>th</sup> grade  
change to Chem I &  
Physics I**

**Continued NGSX cohorts  
(special ed., elementary  
teachers, new teachers)**

**Plan for 11<sup>th</sup> grade Earth  
science, Chem II, Physics  
II, and AP**

# A Day in the Life of a Leader...



- Professional Development
  - Individual teacher support
  - PD Days
- Curriculum cohort work (Rubicon Atlas)
- Data analysis & common assessments
- Manage resources
- Lead monthly council meetings

# Our Recommendations

- STAY the course – this is NOT a quick process
- Bringing teachers together is KEY
- Be open to continuous revisions





What questions might you have for us at this time?

# Contact Information

- Dr. Pamela Jones  
[pjones@cvs.k12.mi.us](mailto:pjones@cvs.k12.mi.us)  
723-2033
- Julie Hilker  
[jhilker@cvs.k12.mi.us](mailto:jhilker@cvs.k12.mi.us)  
723-6261
- Sharon Moats  
[smoats@cvs.k12.mi.us](mailto:smoats@cvs.k12.mi.us)  
723-6261

