



HINSDALE TOWNSHIP
HIGH SCHOOL DISTRICT 86

Strategic Plan: Getting Started with Goal 1

D86 Science Program



Plan: Strategic Plan Goal 1

Goal One

Student Growth and Achievement

All students are engaged in a rigorous education resulting in college, career, and life readiness

High Priority Strategies

1. Course and instructional units include common critical competencies, aligned assessments between the two high schools, and multiple measures of success
2. Students explore big ideas, leverage technology, make real-world connections, and use authentic ways to demonstrate their knowledge and interests
3. Students use their individual data to shape decisions about career and life readiness



Plan: D86 Science Program Committee

Carol Baker	Assistant Superintendent for Academics
Arwen Pokorny Lyp	Principal - South
Bill Walsh	Principal - Central
Jessica Hurt	Assistant Principal of Instruction - Central
Eric Martzolf	Assistant Principal of Instruction - South
Julie Gaubatz	Science Department Chair - South
Julie May	Science Department Chair - Central
David Bonner	Physics teacher - South
Randy Brogan	GeoPhysics teacher, interventionist - South
Dylan Canavan	Earth Science teacher - Central
Tracy McDonald	Chemistry teacher - South
JR Paige	Biology teacher - Central
Jim Vetrone	Physics teacher - Central



Study: Meetings and Tasks

April 4: Admin + DCs
April 16: Full team
April 29: Full team
May 6: Full team
May 14: Full team
May 22: Full team
May 29: Full team
May 29: Parents, students, 2
board members
May 31: Full team
June 24: Physics Ts
June 26: Full team
July 12: Admin + DCs

1. Determine D86 Science Program goals
2. Analyze numerous science sequences
3. Incorporate science teacher feedback
4. Gather feedback from a selection of D86 students and parents
5. D86 Physics teachers determine physics course offerings
6. Refine D86 Science Program



Study: D86 Science Program Goals

GOAL 1 (ALIGNMENT)	GOAL 3 (COLLEGE/CAREER)	GOAL 5 (STUDENT CHOICE)
Align course fees, texts, objectives, semester exams, anchor assessments.	Align courses with college and career opportunities. <ul style="list-style-type: none">- Increase AP enrollment- Increase # of students passing AP exams- Enrollment in capstone course(s)- Provide junior/senior courses matching high demand careers/student interests- Courses are acceptable to colleges	Provide informed student choice in coursework junior and senior year. <ul style="list-style-type: none">- Provide options for 11-12 specialization- Support level changes
GOAL 2 (BIG IDEAS, INTEREST)	GOAL 4 (STRUCTURE)	GOAL 6 (SEL)
Increase student exposure to and interest in core sciences. <ul style="list-style-type: none">- Student experience more core sciences- Students experience more NGSS- Students enroll in more than the required 2 yrs of science, or the 3 yrs suggested by colleges	Create a strategic and coherent science program. <ul style="list-style-type: none">- One course leads to another in terms of knowledge, skills, and in building interest- Courses align intuitively- Courses reflect student developmental level- Maximize teacher expertise	Increase SEL considerations for students and parents. <ul style="list-style-type: none">- Decrease confusion on course selection- Decrease perceived need for tutoring- Support student ability to change levels- Support academic risk-taking- Courses address academic needs



Study: Sequences Analyzed

- Semester courses aligned by semester (specified fall and spring courses)
- Semester courses aligned by year (flexible fall and spring courses)
- California Model 1 (Earth Science integrated into Phys - Chem - Bio)
- California Model 2 (Earth Science integrated into Bio - Chem - Phys)
- Open-Enrollment (similar to HCHS)
- Multiple course pathways (New Trier Model)
- Traditional sequencing (similar to Stevenson and others, Biology - Chem - Phys)
- PCB (Similar to HSHS, Phys - Chem - Bio)
- Designer model (four tracks, two each for different abilities, two options within each track)



Act: District 86 Science Program

FRESHMAN	SOPHOMORE	JUNIOR	SENIOR
<p>Physics: Physics in the Universe</p> <p>--OR--</p> <p>Physics Honors: Physics in the Universe</p>	<p>Chemistry: Chemistry of Earth Systems</p> <p>--OR--</p> <p>Chemistry Honors: Chemistry of Earth Systems</p>	<p>Biology: Biology of the Living Earth</p> <p>--OR--</p> <p>Advanced Placement Biology</p>	<p><u>Capstones:</u> Anatomy & Physiology Earth Science</p> <p><u>Advanced Placement:</u></p>
	<p><u>Can be concurrent:</u> AP Physics C AP Physics C-M AP Seminar</p>	<p><u>Can be concurrent:</u> Anatomy & Physiology Earth Science (capstone) AP Chemistry AP Environmental Science AP Physics C AP Physics C-M AP Research AP Seminar</p>	<p>AP Biology AP Chemistry AP Environmental Sci AP Physics C AP Physics C-M AP Research AP Seminar</p>



Sample of Parent and Student Feedback

I think this is heading in the right direction.

I prefer open-enrollment so I can choose my path.

Biology is unavoidable; it impacts everyone.

Chem builds on Physics, and is built upon by Bio.

The sequence makes sense.

This was insightful and well-researched.

I take Physics as a freshman and like how it matches with my math class.

I like these changes; students will enjoy it more.

Much of what the average person needs to know about physics can be attained by experience, however, that is not true with Biology - it's much more complex as a science.

The current system works well - don't change it.

This seems so much less stressful.

I like the encouragement of risk-taking and reducing the perceived need for tutors.

How will this impact sender schools?

This should definitely be implemented.

You need math for Physics.

The streamlining between both schools' pathways ensures that all students have access to the same courses at both schools.

I'd like to see electives at the junior level as well.

I like that all students in the same grade will be taking the same type of course.

Current science honors courses are a nightmare.

I would very much like to see this proposal move forward, expeditiously.

How will this impact subject-level SAT exams?

I like Earth Science as a running theme.



Act: Program Implementation

	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
Physics and Physics-Honors: Physics in the Universe	<i>Develop Curriculum</i>	CHS: Limited Enrollment SHS: All Freshmen	All D86 Freshmen		
Chemistry and Chemistry-Honors: Chemistry of Earth Systems		<i>Develop Curriculum</i>	CHS: Limited Enrollment SHS: All Sophomores	All D86 Sophomores	
Biology: Biology of the Living Earth and AP Biology			<i>Develop Curriculum</i>	CHS: Limited Enrollment SHS: All Juniors	All D86 Juniors



Do: Hinsdale Central Freshman Cohort

	2020-2021 Freshman Year	2021-2022 Sophomore Year	2022-2023 Junior Year	2023-2024 Senior year
Freshman placement based on MAP scores	Biology --OR-- Biology Honors	Chemistry --OR-- Chemistry Honors	Physics --OR-- AP Physics 1	Elective --OR-- Advanced Placement
	Earth Science	Physics: Physics in the Universe	Chemistry: Chemistry of Earth Systems	Biology: Biology of the Living Earth
Freshman placement based on freshman math course	Physics: Physics in the Universe --OR-- Physics Honors: Physics in the Universe	Chemistry: Chemistry of Earth Systems --OR-- Chemistry Honors: Chemistry of Earth Systems	Biology: Biology of the Living Earth --OR-- Advanced Placement Biology	Capstone course --OR-- Advanced Placement



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86Forward

HINSDALE TOWNSHIP HIGH SCHOOL DISTRICT

Defining excellence.