IT and Math Curricula: Revision Overview

School Board
May 17, 2022
School Board & AR Requirements

SBP & AR 910:
Curriculum development and evaluation involving students, parents, teachers, and administrators. We also reach out to UAF and community organizations (FNA, TCC, NAACP, etc.).

District Strategic Plan (Student Success): Increase academic achievement and social emotional well-being for all students.

1.1 Competency Based Learning: Define competencies by grade level and content areas, allowing students to advance based upon demonstrated mastery rather than seat time.

SBP & AR 236.1:
Board Curriculum Committee receives monthly updates, reviews all drafts, and makes a recommendation to the School Board.
Per SBP/AR 910, we are required to engage in a curriculum cycle.
# Revised Curriculum Calendar

<table>
<thead>
<tr>
<th>Content Area</th>
<th>2022-2023</th>
<th>2023-2024</th>
<th>2024-2025</th>
<th>2025-2026</th>
<th>2026-2027</th>
<th>2027-2028</th>
<th>2028-2029</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>Research &amp; Review</td>
<td>Develop &amp; Define</td>
<td>Implement</td>
<td>Measure - Refine - Revise</td>
<td>Research &amp; Review</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PE</td>
<td>Research &amp; Review</td>
<td>Develop &amp; Define</td>
<td>Implement</td>
<td>Measure - Refine - Revise</td>
<td>Research &amp; Review</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curriculum: K-12: 2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>Research &amp; Review</td>
<td>Develop &amp; Define</td>
<td>Implement</td>
<td>Measure - Refine - Revise</td>
<td>Research &amp; Review</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Art</td>
<td>Measure - Refine - Revise</td>
<td>Research &amp; Review</td>
<td>Develop &amp; Define</td>
<td>Implement</td>
<td>Measure - Refine - Revise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curriculum: K-12: 2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music</td>
<td>Measure - Refine - Revise</td>
<td>Research &amp; Review</td>
<td>Develop &amp; Define</td>
<td>Implement</td>
<td>Measure - Refine - Revise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>World Language</td>
<td>Measure - Refine - Revise</td>
<td>Research &amp; Review</td>
<td>Develop &amp; Define</td>
<td>Implement</td>
<td>Measure - Refine - Revise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Studies</td>
<td>Measure - Refine - Revise</td>
<td>Research &amp; Review</td>
<td>Develop &amp; Define</td>
<td>Implement</td>
<td>Measure - Refine - Revise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curriculum: K-12: 2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English Language Arts</td>
<td>Measure - Refine - Revise</td>
<td>Research &amp; Review</td>
<td>Develop &amp; Define</td>
<td>Implement</td>
<td>Measure - Refine - Revise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Math</td>
<td>Implement</td>
<td>Measure - Refine - Revise</td>
<td>Research &amp; Review</td>
<td>Develop &amp; Define</td>
<td>Implement</td>
<td>Measure - Refine - Revise</td>
<td></td>
</tr>
<tr>
<td>Curriculum: K-5: 2014 6-12: 2022</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technology</td>
<td>Curriculum: 2014</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## CTE Curriculum Revision

<table>
<thead>
<tr>
<th>Year</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2022/2023</strong></td>
<td></td>
</tr>
<tr>
<td>Fall:</td>
<td>STEM</td>
</tr>
<tr>
<td>Spring:</td>
<td>Arts/AV</td>
</tr>
<tr>
<td></td>
<td>Hospitality &amp; Tourism (Culinary)</td>
</tr>
<tr>
<td><strong>2023/2024</strong></td>
<td></td>
</tr>
<tr>
<td>Fall:</td>
<td>Architecture &amp; Construction</td>
</tr>
<tr>
<td>Spring:</td>
<td>Health Science</td>
</tr>
<tr>
<td></td>
<td>WBL &amp; Capstone</td>
</tr>
<tr>
<td><strong>2024/2025</strong></td>
<td></td>
</tr>
<tr>
<td>Fall:</td>
<td>Automotive &amp; Small Engines</td>
</tr>
<tr>
<td>Spring:</td>
<td>Aviation</td>
</tr>
</tbody>
</table>
Information Technology

ND
Process

2019-2020
Teachers, Industry, and Postsecondary Representatives

2020-2021
Focused Discovery for Programs to Fit the Needs From the Research Team

2021-2022
Writing and Revising
Project Lead The Way

Middle School
Gateway

High School
# Information Technology Pathway

**GRADES 6-8**

- App Creators
- Computer Science for Innovators and Makers

**Grades 9-12**

- Computer Science Essentials
- Computer Science Principles
- Computer Science A
- Cybersecurity
- IT Networking
- Special Projects
- Job Shadow & Internships
Industry Certifications

Networking+ (CompTIA)
Security+ (CompTIA)
A+ (CompTIA)**
<table>
<thead>
<tr>
<th>Courses Removed From Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Middle School</strong></td>
</tr>
<tr>
<td>Computer Essentials</td>
</tr>
<tr>
<td>Exploring Computer Essentials</td>
</tr>
<tr>
<td><strong>High School</strong></td>
</tr>
<tr>
<td>Introduction to IT</td>
</tr>
<tr>
<td>IT Essentials</td>
</tr>
<tr>
<td>Mobile Apps</td>
</tr>
<tr>
<td>Web Design</td>
</tr>
</tbody>
</table>
Gratitude

Thank you to all the teachers and industry and postsecondary collaborators for all their hard work on this project!!!
6-12 Math
Overview of the Revision Process

**2019-2020**
34 Teachers, 3 Meetings
Portrait of a Graduate
Development of K-12 Competencies

**2020-2021**
8 Teachers, 6 Meetings
Review Stakeholder Feedback Collected
Board Adopts Core Materials

**2021-2022**
8 Teachers, 6 Meetings
Revise the Existing Math Curriculum
Developed with the Community

**Groups we met with:** UAF Math Department, NAACP, Board Curriculum Committee

**General schedule of input:** Pre-writing surveys, Surveys after each draft, In-person meetings as needed

**Who was notified:** Monroe, FNA, TCC, University Departments (Math, IT, School of Education), Alaska PTA & School PTAs, NAACP

**How they were notified:** Facebook, district website, targeted emails, district digest, T&L newsletter
Thank you to the eight writers who took on this work this year!
Streamlining Middle School Courses

Overlap of Alaska Math Standards

6th Grade

7th Grade

8th Grade

Not condensing courses; Advancing students to the level that is appropriate so that they can explore and understand the content more deeply.
Pre-Reqs should match the work done in the course!

-Math Teachers

- Removed the Algebra 2, Semester 1 requirement for all math elective courses
- Reviewed Pre-Requisites for all courses to see how we could increase access to engaging math electives
Ensuring Students Pass Algebra 1

Start Early
Middle School Math Lab
Providing personalized interventions to students at their point of need

Focus Support
Equitable placement in 2-Year Algebra 1
Identifying students in need of this intervention using key data points

Explore New Paths
More math electives that do not require Algebra 1
Math for the Trades Accounting
Computer Programming
Why Statistics?

- Statistics is the place where Math meets the “real world”
- It allows you to make informed decisions
- Critically analyze information that is presented as fact
- Used in almost any career paths
- Students have been exploring statistics since kindergarten

My kids should be able to understand taxes and make financial decisions!

From our Community

Math should be useful to my kids after they graduate (whether they go to college or not)!

We want our students to be engaged citizens!
Preparing Students for Life

Current Graduation Requirements

3.0 CREDITS TOTAL
1.0 Credits Algebra 1
2.0 Credits Math Electives

Revised Graduation Requirements

All students will earn 3.0 credits of Math IN HIGH SCHOOL

1.0 Credits Algebra 1 (or another math elective if the student earned credit for Algebra 1 in middle school)

0.5 Credits Statistics by taking 1 of the following courses:
  - Survey of Math and Society
  - Intro to Data and Statistics
  - Algebra 2, semester 2
  - AP Statistics

1.5 Credits of Math Electives
The Board Curriculum Committee recommends that we adopt the Math and IT Curriculum revisions.
Recommended Textbooks
Recommended Textbooks
The Board Curriculum Committee recommends that we adopt these materials.
In your packet for today

- Board reports
- Letters of recommendation from the Board Curriculum Committee and from District Administration
- Summary of changes
- Curriculum documents
June 7, you will vote on

- Adopting the math curriculum
- Adopting the IT curriculum
- Adopting Materials for:
  - Math for the Trades
  - Accounting