Administrator Decision Tree

1. SCHEDULE CAPACITY

Guiding Question: Which math/computer science courses do we currently offer? Who teaches them? Which are essential? Are there any currently offered courses that could be replaced?

Analyzing Question: How many new courses could we fit into our schedule?

Course	Number of Sections	Teacher(s)	How many sections are essential to keep?
Algebra 1/Math 1			
Geometry/Math 2			
Algebra 2/Math 3			
Pre-Calculus			
Calculus			
	Total sections:		Total Essential Sections:

2. TEACHER CAPACITY

Guiding Questions: How many prep periods does each teacher have? Which teachers are willing/able to teach any new courses? If so, which new courses do they prefer to teach.

Analyzing Question: Which teachers are most likely able/willing to teach new courses?

Teacher Name	Courses Taught	Number of Prep Periods	Algebra 2 Equivalent 1st Preferred Course	Algebra 2 Equivalent 2nd Preferred Course	Algebra 2 Equivalent 3rd Preferred Course	Unwilling to Teach

3. Regional Needs

Guiding Questions: What industries does this region feed into and what postsecondary education do students need? Use the In-Demand Jobs Listing: https://topjobs.ohio.gov/wps/portal/gov/indemand/list

- Sort by your region of the state using the drop-down tool.
- Download a comma-separated values (CSV) file using the button in the lower right-hand corner.
- Highlight table and Sort by 08. Growth (Column H).
- Delete columns A (01), D (04) and E (05).
- Delete rows from 26 and beyond.
- Copy lines from A2 to A26 from the CSV into Column A "In-Demand Jobs" below.
- Copy lines from B2 to B26 from the CSV into Column B "Education Requirement" below.
- Copy lines from C2 to C26 from the CSV into Column C "OhioMeansJobs Career Cluster" below.
- You may want to sort by employment and opening and add any jobs that weren't on the growth list.
- Highlight the table, and sort by Education Requirement (Column B). Mark that your data has headers.
- For jobs that require some level of postsecondary instruction, use the Student Decision Tree_Part 3 on the Department's <u>Math Pathways Toolkits webpage</u> to find the recommended math course for each indemand job.

Analyzing Question: Which Pathways Math Course appears most often for your region? Highlight the top five career clusters and their Algebra 2 Equivalent aligned courses.

In-Demand Jobs	Education Requirement	OhioMeansJobs Career Cluster	Ohio Department of Higher Education Career Cluster	Recommended Math Course
	l .			

4. Student Course Requests

Guiding Question: Which third- and fourth-year math options did your students request?

Analyzing Question: What are the top two student math course requests?

Third- and Fourth-Year Student Math Course Requests	Percent of Requests

5. Student Interests

A sample student survey is in the toolkit. Conduct a student survey to find out the following:

a. Guiding Questions: What percentage of my students pursue four-year degrees from Ohio public universities? Private universities? Two-year associate degrees? Enter the military? Enter directly into the workforce upon completing high school?

Analyzing Question: What percentage of students plan to pursue postsecondary degrees?

Student Paths	Percent
Four-year degree from an Ohio public institution	
Four-year degree from a private or out-of-state institution	
Two-year degree	
Apprenticeship	
Enter the military directly upon graduation	
Enter into career directly upon graduation	

b. Guiding Question: What percentage of students are interested in college majors that require calculus? **Analyzing Question:** How many sections of Algebra 2 are needed?

College Majors Requiring Calculus	Percent
Interested in a calculus-based career	
Not interested in a calculus-based career	

c. Guiding Question: What careers are your students interested in?Analyzing Question: What are the top five career clusters your students are interested in?

Career Cluster	Percent
	Interested
Agriculture & Natural Resources	
Anthropology & Geography	
Art, Drama & Music	
Business & Finance	
Computer Science, Information Technology &	
Programming	
Construction	
Economics	
Education (math or upper-level science	
teacher)	
Education (non-math or upper-level science	
teacher)	
Engineering, Biology, Chemistry, Geology,	
Physics & Pre-Med	
English, Communications & Journalism	
Food & Beverage	
Government, History & Public Administration	
Hospitality & Tourism	
Law, Public Safety, Corrections & Security	
Marketing, Sales & Advertising	
Nursing, Dietetics & Exercise Science	

d. Guiding Question: Which pathways courses are students interested in taking?Analyzing Question: What are the top two courses students are interested in taking?

Course	Percent Interested
Algebra 2/Precalculus/Calculus	
Quantitative Reasoning	
Data Science Foundations	
Statistics and Probability	
Discrete Math/Computer Science	

Summarize the Data

2. Teacher Capacity Top teacher- preferred courses (ranked)	3. Regional Needs Top five regional in-demand jobs with their Algebra 2 Equivalent courses (ranked)	4. Student Course Requests Top two student math course requests	5a. Student Survey: Postsecondary Plans Percent of students who plan to pursue postsecondary degrees	5b. Student Survey: Calculus- based Majors How many sections of Algebra 2 are needed?	Sc. Student Survey: Career Interests Top five career clusters and Algebra 2 Equivalent aligned courses (ranked)	5d. Student Survey: Student Course Interest Top two preferred student courses (ranked)
	Top teacher- preferred courses	Top teacher- preferred courses (ranked) Top five regional in-demand jobs with their Algebra 2 Equivalent	Top teacher- preferred courses (ranked) Top five regional in-demand jobs with their Algebra 2 Equivalent Requests Top two student math course	Top teacher- preferred courses (ranked) Top five regional in-demand jobs with their Algebra 2 Equivalent courses (ranked) Top five regional in-demand jobs with their Algebra 2 Equivalent course (ranked) Requests Top two student math course requests requests Top two student math course requests	Top teacher- preferred courses (ranked) Top five regional in-demand jobs with their Algebra 2 Equivalent courses (ranked) Top five regional in-demand jobs with their Algebra 2 Equivalent courses (ranked) Requests Top two student math course requests Top two student math course requests Top two student math course requests Top two student math course requests Top two student math course postsecondary processes are postsecondary needed?	Top teacher- preferred courses (ranked) Top five regional in-demand jobs with their Algebra 2 Equivalent courses (ranked) Top five regional in-demand jobs with their Algebra 2 Equivalent courses (ranked) Requests Top two student math course requests Top two student math course requests Top two student math course requests Postsecondary Plans Percent of students who plan to pursue postsecondary degrees Algebra 2 are needed? Equivalent aligned courses

Analyze the Data: Now that you have summarized the data, analyze the results. Districts may determine the weight of each category and analyze the data.