

Computer Science Landscape Analysis Tool

Purpose: School system computer science implementation teams should use the Computer Science Landscape Analysis Tool to map relevant system-level computer science data to accomplish the system actions outlined in the [K–12 Computer Science Education Plan](#).

Step 1: Gathering School System Computer Science Data

Gather and record data in the charts below regarding teacher certifications, student enrollment, and infrastructure to guide discussions on staffing and resource needs at each school location.

Grades 9–12 Computer Science Certification and Training Data	Current Data	Desired State
A. How many grade 6–12 computer science teachers are within the school system and currently have the 6–12 Computer Science endorsement listed on their teacher license?		
B. How many teachers hold College Board training for AP Computer Science A?		
C. How many teachers hold College Board training for AP Computer Science Principles?		
D. How many teachers hold International Baccalaureate (IB) Computer Science training?		
Add the total number of teachers from letters A to D to obtain the school system's total number of teachers <i>eligible</i> to instruct a computer science course in grades 9–12.		
How many grade 9–12 teachers have completed the Energize! Initiative in the school system?		
How many grade 9–12 teachers are pursuing an add-on computer science teacher certification endorsement by taking the Praxis (5652) Computer Science Content Area Exam?		

Grades 9–12 Computer Science Coursework and Enrollment Data	Current Data	Desired State
What local internships does the school system currently offer that involve computing work as the primary job task?		
How many schools serve grades 9–12 in the school system?		
How many schools serving grades 9–12 in the school system lack a certified computer science teacher as outlined in Bulletin 746 ?		
How many grade 9–12 teachers hold authorization to teach an approved computer science course on one of these Jump Start 2.0 pathways, the STEM Renaissance Computing & Cybersecurity pathway, or the STEM Renaissance Digital Design & Emergent Media pathway in the school system?		
How many grade 9–12 teachers teach an Industry-Based Credential course focused on computer science from the school system's Jump Start 2.0 Pathways – Information Technology ?		

Grades 6–8 Computer Science Data	Current Data	Desired State
How many grade 6–8 computer science teachers in the school system have a 6–12 Computer Science certification on their teaching license?		
How many school locations teach grades 6, 7, or 8?		
How many schools currently offer a full-year computer science exploratory elective course for students in grades 6, 7, or 8?		All Schools

Grades K–5 Computer Science Staff with Computer Science Training Data	Current Data	Desired State
How many grade K–5 teachers have completed the Ignite! Initiative in the school system?		

Grades K–5 Computer Science Staff with Computer Science Training Data	Current Data	Desired State
How many elementary schools (grades K–5) offer a specialized or designated time for computer science? If so, how many minutes per week do students attend?		

Computer Science Logistical Data	Current Data	Suggested Desired State
For each school location, what is the student-to-computing device ratio?		1:1 ratio
For each school location, specify the type of computing device that students utilize to complete classwork. Are the student computing devices adequate for the course and curriculum needs of student users?		All devices are upgraded to support instructional needs.
For each school location, specify how each student can access the Internet.		All school locations have student-accessible Internet access.
What percentage of students have Internet access in their personal dwellings at each school location?		≥ 80%
Which Industry-Based Credentials in computer science does each 9–12 school location offer, if any?		A minimum of 1 Programming Language IBC per school location.

*Attach additional collected computer science data for review.

Step 2: Analyze Data and Determine Action Steps

Determine system computer science implementation goals based on collected data. Use the Landscape Analysis Tool data to set action steps, milestones, and an implementation timeline to achieve the identified goals. Assign roles and responsibilities to key personnel.

Step 3: Revisit Data and Monitor Progress

Regularly update the Landscape Analysis Tool with data on teacher certifications, course offerings, and progress toward goals. Use [Instructional Leadership Teams \(ILT\)](#) to monitor progress and support [high-quality professional learning](#).