**Cedar Rapids Community School District**

**Technology Planning Committee**

**2017-2018**

## District Mission

To ensure all learners experience a rigorous and personalized academic program so they have a plan for their future guided by their passions.

## Our Vision: Every Learner: Future Ready

Every Learner will:

Experience a rigorous and personalized academic program

Build a plan for their future guided by their passions

Utilize technology to optimize learning opportunities and experiences

Leverage innovation and diversity to create experiences that better prepare them for postsecondary success

Be a part of a collaborative learning environment that is more collaborative and integrates school, community and business

## Technology Planning Committee

Mission

*Stemming from CRCSD's vision of Every Learner: Future Ready, the Technology Planning Committee's mission is to develop and implement a digital learning system that is equitable and flexible in providing diverse learning experiences so all learners are future ready.*

# Technology Planning Committee Members

| FirstName | LastName | Roles | Associated with the following bldgs: |
|---|---|---|---|
| Leigh | Anderson | School building staff | Hiawatha Elementary |
| Tim | Anderson | Parent | Johnson STEAM Academy |
| Paul | Barnard | School building staff | Kennedy High School |
| Renate | Bernstein | School building staff | Washington High School |
| Greg | Best | Community partner | Technology SAVE Oversight Committee |
| Dan | Carolin | School building staff | Kennedy High School |
| Katie | Christensen | School building staff | Grant Elementary |
| John | Cline | School building staff | Washington High School |
| Eriece | Colbert | School building staff; Parent | Franklin Middle School staff; Coolidge and Jefferson parent |
| Joel | Decker | School building staff; Parent | Washington High School staff; McKinley and Erskine parent |
| Dan | Devore | School building staff | Metro High School |
| Nick | Duffy | School building staff; Parent | Jackson Elementary |
| Amy | Evans | School building staff | Coolidge Elementary |
| Seth | Fontenot | Parent | Madison Elementary |
| Monica | Frey | School building staff | Grant Elementary |
| Tim | Gustin | Community partner | Technology SAVE Oversight Committee |
| Adam | Hanrahan | School building staff; Parent | Viola Gibson and Kennedy parent; Harding Middle School staff |
| Courtney | Hogan | School building staff | Taft Middle School Staff and Future Ready Library Facilitator for District |
| Bryan | Johnson | Parent | Jackson, Taft, Kennedy |
| Shannon | Kehoe | School building staff | Viola Gibson Elementary |
| Chris | Kilburg | School building staff | Metro High School |
| Lisa | Klostermann | Parent | Hiawatha Elementary |
| Sherrie | Kopecky | School building staff | Cleveland Elementary |
| Michelle | Kruse | School building staff | Roosevelt Creative Corridor Business Academy |
| Joy | Long | School building staff | Garfield Elementary |
| Candi | Lynch | School building staff | Johnson STEAM Academy |
| AJ | Maiers | School building staff | Cleveland Elementary |
| Jason | Martinez | School building staff; Parent | McKinley Middle School staff; Kennedy High School- Parent |
| Lura | McBride | Parent | McKinley and Washington |
| Kathy | McLaud | Parent | Viola Gibson, Roosevelt, Kennedy |
| Kelly | McMahon | School building staff | Hoover Elementary |
| Scott | McWherter | School building staff | Washington High School |
| Laurie | Mead | School building staff; Parent | Kennedy High School |

## Technology Planning Committee Members (cont.)

| Staci | Novak | School building staff | Johnson STEAM Academy |
|---|---|---|---|
| Jeffrey | O'Brien | Parent | Roosevelt Creative Corridor Business Academy |
| Greg | O'Connell | School building staff | Coolidge Elementary |
| Matt | Oliphant | School building staff | Jefferson |
| Melissa | Oberembt | School building staff | Jefferson |
| Breanna | Oxley | School building staff | Roosevelt Creative Corridor Business Academy |
| Lucas | Ptacek | School building staff | Franklin Middle School |
| Paul | Salamon | Community partner | Volunteered at many CR public schools, currently Washington HS and Franklin MS |
| Andrew | Smith | School building staff | Jackson Elementary |
| Jennifer | Smith | School building staff | Madison Elementary |
| Chuck | Tonelli | School building staff | Metro High School |
| Ashley | Walsh | School building staff | Johnson STEAM Academy |
| Allison | Walter | School building staff; parent | Jackson Elementary staff; Jackson parent |

## Technology Planning Committee- Advisory Members

| FirstName | LastName | Role |
|---|---|---|
| Lori | Bruzek | Technology Director |
| Noreen | Bush | Associate Superintendent |
| Val | Dolezal | Executive Director, PK-5 |
| Vicki | Genkinger | Technology Field Support Supervisor |
| Steve | Graham | Executive Director, Business Services |
| Carlos | Grant | Executive Director, Personalized Learning & Middle Schools |
| Jenny | Hageman | Help Desk Supervisor |
| Rose | Hayes | AIM Coach |
| Sherri | Lytle | Technology Integration Specialist |
| Mary Ellen | Maske | Deputy Superintendent |
| Lisa | McMillen-Boese | Technology Integration Specialist |
| Holly | Palmersheim | Professional Development Facilitator Tech TLC |
| Maggie | Pickett | AIM Coordinator |
| Wendy | Parker | Executive Director, Special Services |
| Karla | Ries | Executive Director, Instructional Services |
| Nicole | Smith | Professional Development Facilitator Tech TLC |
| Erin | Thompson | Secondary Language Arts Facilitator |
| Adam | Zimmermann | Director, Culture & Climate Secondary Education |

## Technology Planning Committee- Student Panel

| Olivia Christensen | Washington/BIG |
|---|---|
| Eda Daw | Jefferson |
| Tom Bush | College Community/BIG |
| Travis Gibbs | College Community |
| Ethan Dix | Washington |
| Jason Jaeger | Jefferson |
| Tyler Greiner | Jefferson |
| Caden Hecker | Washington |
| Denaya Kemp | Jefferson |
| Madison Wojciechowdki | Jefferson |

In developing this plan, the committee reviewed and considered:

- CRCSD Vision of Every Learner: Future Ready
- CRCSD Beliefs and Strategic Plan Focus Areas (5 Bold Steps)
- Digital literacies changing educational and employment landscape
- The Technology and Learning Framework
  - CASE research-based framework (Classroom, Access, Skills, and Environment)
  - Technology and Learning Survey of CRCSD students, staff and parents
    - 3360 students
    - 828 staff
    - 859 parents
- Student panel sharing
- CRCSD current state
  - Core data and instructional systems
  - Classroom technologies and computer access
  - Parent provided information on home access
  - Policies and procedures
  - Technology support
  - Professional development support

Research References:

- U.S. Department of Education, Office of Educational Technology, Reimagining the Role of Technology in Education, 2017 National Education Technology Plan Update, Washington, D.C., 2017. (This report is available on the Department's Web site at https://tech.ed.gov.)

- BrightBytes Technology & Learning CASE is a research-based framework that outlines the essential factors schools need in order to improve learning through the use of technology. There are four domains within the CASE framework: Classroom, Access, Skills, and Environment

# FITTING THE PIECES TOGETHER

resources

accessibility

**LEADERSHIP**
Setting the vision

**LEARNING**

**ASSESSMENT**
Understanding
learning progress

**TEACHING**
Putting vision
into practice

connectivity

devices

## INFRASTRUCTURE

Providing accessibility, resources and connectivity so that learning is
**everywhere, all the time**

*Graphic from U.S. Department of Education, Office of Educational Technology, Future Ready Learning: Reimagining the Role of Technology in Education, Washington, D.C., 2017. This report is available on the Department's Web site at https://tech.ed.gov.*

# Critical Commitment 1: Clear Learning Outcomes for Students

TEAM LEAD: Deputy Superintendent

The committee has identified the following actions needed for Critical Commitment 1:
- A. Identify clear future-ready learning outcomes for students by grade-level bands aligned to International Society for Technology in Education (ISTE) standards for students
  - a. Publish a scope and sequence for digital citizenship instruction
- B. Establish metrics to assess student learning outcomes
- C. Embed future-ready learning outcomes within each core content area
- D. Provide direct instruction to all students on the use of core resources and systems provided for learning, including collaboration and productivity solutions, learning management system, assistive and accessible technology resources and digital networks

Supporting Research:  A primary goal set out in the National Education Technology Plan (NETP) is that *all learners will have engaging and empowering learning experiences in both formal and informal settings that prepare them to be active, creative, knowledgeable, and ethical participants in our globally connected society.*

Additionally, the NETP states: *To remain globally competitive and develop engaged citizens, our schools should weave 21st century competencies and expertise throughout the learning experience. These include the development of critical thinking, complex problem solving, collaboration, and adding multimedia communication into the teaching of traditional academic subjects.  In addition, learners should have the opportunity to develop a sense of agency in their learning and the belief that they are capable of succeeding in school.*

*Beyond these essential core academic competencies, there is a growing body of research on the importance of non-cognitive competencies as they relate to academic success. Non-cognitive competencies include successful navigation through tasks such as forming relationships and solving everyday problems. They also include development of self-awareness, control of impulsivity, executive function, working cooperatively, and caring about oneself and others.*

*Increased connectivity also increases the importance of teaching learners how to become responsible digital citizens. We need to guide the development of competencies to use technology in ways that are meaningful, productive, respectful, and safe.*

| Benchmarks for STUDENT LEARNING OUTCOMES | Measure | Target Timeline |
|---|---|---|
| 1.A.1 - Adoption of the ISTE Standards for Students. Review and revise digital literacy standards and priority standards for grade level spans: PK-2, 3-5, 6-8, 9-10, and 11-12. 1.A.2 - Crosswalk ISTE Standards with National Library Information Literacy Standards. | Completed Stage 1 of Curriculum Map: All priority standards distributed PK-12 | August 2018 |
| 1.B.1 - Research, design, and develop an instruction and assessment system that measures student digital literacy skills and development on the ISTE standards. Assessment system would include priority ISTE standards, measurement tools, and a menu of learning products/demonstrations of learning through assessments and/or portfolio products. | Completed Stages 2-3 of Curriculum Map: essential questions, proficiency scales/rubrics, potential assessments/ products | June 2019 for grades 6-12; June 2020 for grades PK-5 |
| 1.C.1 - Identify digital literacy skills and standards addressed or measured in existing content areas through direct instruction. | Units of Study identified in Curriculum Maps through Professional Learning Communities with embedded ISTE standards | 2019-2020 By June 2020 |

# Critical Commitment 2: Clear Learning Outcomes and Professional Learning for Staff

Team Lead: Deputy Superintendent

The committee has identified the following actions needed for Critical Commitment 2:

A. Identify clear learning outcomes for staff based on International Society for Technology in Education (ISTE) standards for teachers
B. Provide personalized learning opportunities for staff to improve instructional design strategies and meet staff learning outcomes
C. Identify expectations for staff use of core District digital resources and systems
D. Provide direct instruction to all staff in the use of core resources and systems provided for learning and instruction, including collaboration and productivity solutions, learning management system, assistive technology resources and digital network
E. Develop assessments to determine staff skill and support needs
F. Identify tech integration strategies in weekly PLC meetings to benefit student learning

From the National Education Technology Plan is: *Educators will be supported by technology that connects them to people, data, content, resources, expertise, and learning experiences that can empower and inspire them to provide more effective teaching for all learners.*

*Technology offers the opportunity for teachers to become more collaborative and extend learning beyond the classroom. Educators can create learning communities composed of students; fellow educators in schools, museums, libraries, and after-school programs; experts in various disciplines around the world; members of community organizations; and families. This enhanced collaboration, enabled by technology offers access to instructional materials as well as the resources and tools to create, manage, and assess their quality and usefulness*

*To enact this vision, schools need to support teachers in accessing needed technology and in learning how to use it effectively. Although research indicates that teachers have the biggest impact on student learning out of all other school-level factors, we cannot expect individual educators to assume full responsibility for bringing technology-based learning experiences into schools. They need continuous, just-in-time support that includes professional development, mentors, and informal collaborations.*

| Benchmarks for LEARNING OUTCOMES AND PROFESSIONAL DEVELOPMENT FOR STAFF | Measures | Timeline |
|---|---|---|
| ADULT LEARNING COMPETENCIES AND PL | | |
| 2. INSTRUCTION: TEACHING AND LEARNING | | |
| 2.A.1 - At the end of five years, all district faculty members will have participated in high- quality professional learning that includes students' core curriculum and instruction access expectations, digital literacy strategies for curriculum, instruction and assessment, and using digital literacy learning and tools as a means to personalize learning for students. | Teacher Practice Profile aligned with Marzano's scales for development; a Teacher Practice Profile is a self assessment rubric to measure implementation skills. | Create TPP by January 2019<br><br>Launch August 2019<br><br>Annually 2019-2020 through 2022-2023 |
| 2.A.2 - Teacher professional learning outcomes identified and developed as professional competencies. Align digital learning professional development to Marzano's Instructional Elements in the New Art and Science and Teaching Scales. | Teacher Practice Profile aligned with Marzano's scales for development | On-going starting 2018-19 |
| 2.B.1 - Technology professional learning is designed as both direct instruction adult learning opportunities as well as job embedded learning opportunities through coaching, modeling best practices, district -based professional learning, and online professional development.<br>Core PL identified and designed for all.<br><br>Supplemental PL identified and designed for extension learning and personalized professional learning. | Digital Literacy Trainer Implementation Plans aligned with SIP's. District leadership team (curriculum, instruction, and administration will guide the professional learning designs.<br><br>Building level IDS will be provided PL to support job embedded PL and digital literacy opportunities for learning in curriculum and instruction. | September 2018<br><br>Annually aligned with SIP |

| Benchmarks for LEARNING OUTCOMES AND PROFESSIONAL DEVELOPMENT FOR STAFF | Measures | Timeline |
|---|---|---|
| 2.C.2 -  At least 90% of teachers use technology appropriately with students every day to improve student learning of the curriculum. Activities include some of the following: access to core instruction and curriculum through LMS and OER (Open Education Resources), research, multimedia, simulations, data analysis, communications, and collaboration. Teachers integrate evolving technologies that enhance student interest, inquiry, analysis, collaboration, and creativity. | Instructional Practices Inventory-Tech Data will demonstrate at least 15% in levels 5-6 (higher order, deeper thinking levels) in IPI buildings. | June 2020 |
| | | |
| 2.D. PL COMPETENCIES AND MICROCREDENTIALING | | |
| 2.D.1 - Design and implement a Professional Learning Competency System that incorporates micro-credentialing competencies. Micro-credentialing will be designed for both acknowledgement and growth for development. | Launch System | August 2019 |
| 2.D.2 - Professional development planning includes an assessment of district and teachers' needs. The assessment is based on the Professional Learning Competency System and uses a Teacher Practice Profile—self scoring and reflection—to monitor both teacher and system progress. | Teacher Practice Profile aligned to Marzano's Scales | Baseline January 2019 |
| 2.E - Identify strategies to embed with in instructional design in weekly PLC meetings that will account for learner variability. | Evidence in unit designs | June 2020 |

# Critical Commitment 3: Access to Resources

Team Lead: Director of Technology

The committee identified the following actions needed for Critical Commitment 3:

A. Develop rollout plan and refresh timelines and priorities for each of the following:
    1) Implement mobile devices for 24/7 access for staff PK-12 (teachers and administrators)
    2) Provide other staff device appropriate for their work needs
    3) Implementing 1:1 mobile device for 24/7 access for high school students
    4) Implementing 1:1 mobile device for 24/7 access for middle school students
    5) Providing 2:1 mobile device allocation for elementary students
B. Identify criteria for determining 1:1 device specifications
C. Develop and provide orientation for staff on 1:1 learning environments.
D. Develop orientation and subsequent programs to inform users and families about 1:1 goals
E. Review and create or modify necessary policies, procedures, and management systems related to 1:1 resource distribution and management.
F. Identify and expand access to community-based wifi access to support student learning needs
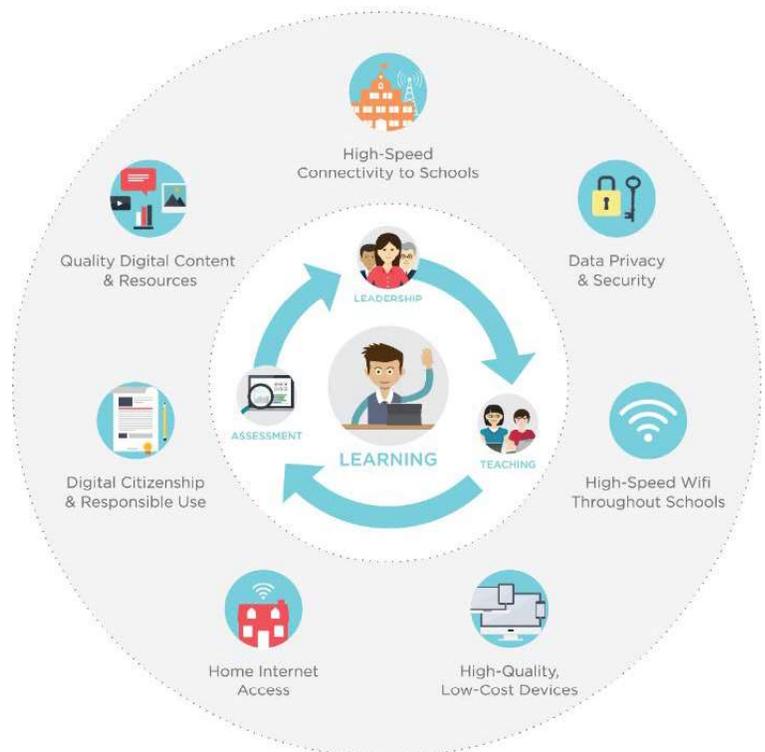
The 2017 National Education Technology Plan identifies the following goal:

*Preparing students to be successful for the future requires a robust and flexible learning infrastructure capable of supporting new types of engagement and providing ubiquitous access to the technology tools that allow students to create, design, and explore. The essential components of an infrastructure capable of supporting transformational learning experiences include the following:*
• **Ubiquitous connectivity.** Persistent access to high-speed internet in and out of school
• **Powerful learning devices.** Access to mobile devices that connect learners and educators to the vast resources of the internet and facilitate communication and collaboration
• **High-quality digital learning content.** Digital learning content and tools that can be used to design and deliver engaging and relevant learning experiences
• **Responsible Use Policies (RUPs).** Guidelines to safeguard students and ensure that the infrastructure is used to support learning

## INFRASTRUCTURE
To Support Everywhere, All the Time Learning



High-Speed Connectivity to Schools

Data Privacy & Security

Quality Digital Content & Resources

LEADERSHIP

ASSESSMENT

LEARNING

TEACHING

High-Speed Wifi Throughout Schools

Digital Citizenship & Responsible Use

Home Internet Access

High-Quality, Low-Cost Devices

| Benchmarks for ACCESS TO RESOURCES | Measures | Timeline |
|---|---|---|
| 3.A.1 - Provide mobile devices for 24/7 access for teachers and administrators Pk-12 | | |
| 3.A.1 a) High School staff | Devices provided | 2018-2019 |
| 3.A.1 b) Middle School staff | Devices provided | 2019-2020 |
| 3.A.1 c) Elementary School staff | Devices provided | 2020-2021 |
| 3.A.2 - Develop rollout plan and refresh cycle of devices for all other staff | Device plan determine for support staff | August 2018 |
| 3.A.3 - Implement 1:1 mobile devices for 24/7 access for high school students | Devices provided | 2019-2020 |
| 3.A.4 - Implement 1:1 mobile devices for 24/7 access for middle school students | Devices provided | **2020-2021** |
| 3.A.5 - Provide 2:1 mobile device allocation for elementary students | Devices provided | 2021-2023 |
| | | |
| 3.B.1 – Identify criteria for determining device specifications for rollouts | Device specification needs identified for each level (HS, MS, ES) | August 2018 |
| | | |
| 3.C.1 - Develop and provide orientation for staff on 1:1 learning environments; elementary staff on 2:1 environments | Staff Orientation provided | HS 2018-2019 MS 2019-2020 ES 2020-2021 ongoing |
| | | |
| 3.D.1 - Develop orientation and subsequent programs to inform users and families about 1:1 goals | Family orientation and programs developed with buildings | HS 2018-2019 MS 2019-2020 ongoing |
| 3.E.1 - Review and create or modify necessary policies, procedures and systems related to 1:1 resource distribution and management | | 2018-2019 Then annually review |
| 3.E.1a) Review/Update acceptable use policy, device loan agreement and damage/loss practices | Acceptable use policy, device loan agreement, and damage/loss protocols updated | January 2019 Then annually review |
| 3.E.1b) Establish systematic device checkout and return protocols, asset management system, and loaner device criteria | Management system identified, and protocols established within buildings | 2018-2019 for HS, 2019-2020 for MS |

| Benchmarks for ACCESS TO RESOURCES | Measures | Timeline |
|---|---|---|
| 3.F.1 - Identify and expand community-based wifi access to support student learning needs | Increase awareness and community engagement | 2018-2019 |
| 3.F.1a) Identify current community based wifi access locations for students | Publicize wifi access locations | 2018-2019 |
| 3.F.1b) Expand wifi access coverage at buildings to cover school grounds | Wifi coverage provided on all school grounds | 2018-2019 |
| 3.F.1c) Identify options and associated costs for District to establish community wifi or LTE network for student internet access outside of school | Options and costs identified | 2019-2020 |

# Critical Commitment 4:

## Robust Infrastructure and Support Systems:

Team Leads: Director of Technology and Deputy Superintendent

The committee identified the following actions for Critical Commitment 4:
  A.  Ensure foundational systems integrate and support the District's learning and operational needs
       1.  Evaluate current and alternate student information systems
       2.  Implement quality data analytic system and visualization resource to drive continuous system improvement
  B.  Ensure robust data center, network, and support systems support and allow continued growth of digital resources in instruction and business operations.
       1.  Annually forecast network utilization needs and continually monitor network use and performance to ensure capacity exceeds demands.
       2.  The district will add additional infrastructure and internet bandwidth as usage dictates.
  C.  Identify metrics related to technical support requirements and re-evaluate existing building and district technology support levels to ensure adequate technical support is readily available to timely address support needs in 1:1 learning environments.

NETP recommends districts "*Draft sustainability plans for infrastructure concerns that include upgrades of wired and wireless access as well as device refresh plans and sustainable funding sources while ensuring the safety and protection of student data.*"

| Benchmarks for<br>**ROBUST INFRASTRUCTURE AND SUPPORT SYSTEMS** | Measure | Timeline |
|---|---|---|
| DATA QUALITY SYSTEM—(APPENDIX A) | | |
| 4.A – Develop a strategic, long term data plan in which CRCSD systems talk to each other and information is consolidated and presented to key stakeholders in a manageable and useful way | | 2019-2020 |
| 4.A.1 - Review district's student information system (SIS) and provide recommendations for possible upgrade or replacement. | Meetings with Vendors<br>Specs Defined | August 2017-June 2018<br><br>Transition 2018-2019<br><br>Launch Registration January 2019 |
| 4.A.2.a- Research data consolidation and reporting systems (data warehouse) that can provide dashboarding capability of key student data | Meetings with vendors<br><br>Specs defined | August 2017-November 2018 |
| 4.A.2.b Acquire and deploy data warehouse system that consolidates district student data and provides real-time dashboards of important information to teachers and administrators | Data Warehouse Plan Design Visualization Dashboard | July 2020<br><br>August 2018 |
| 4.A.3.a Reassess current Learning Management System (LMS) options to ensure systems alignment support staff and student learning needs | Use a specifications document to cross walk needs with the learning management system and options | August 2019 |
| 4.A.4.a Reassess current cloud productivity suite to ensure system aligns to staff and student learning needs | Use a specifications document to cross walk needs with cloud productivity systems and options | August 2019 |

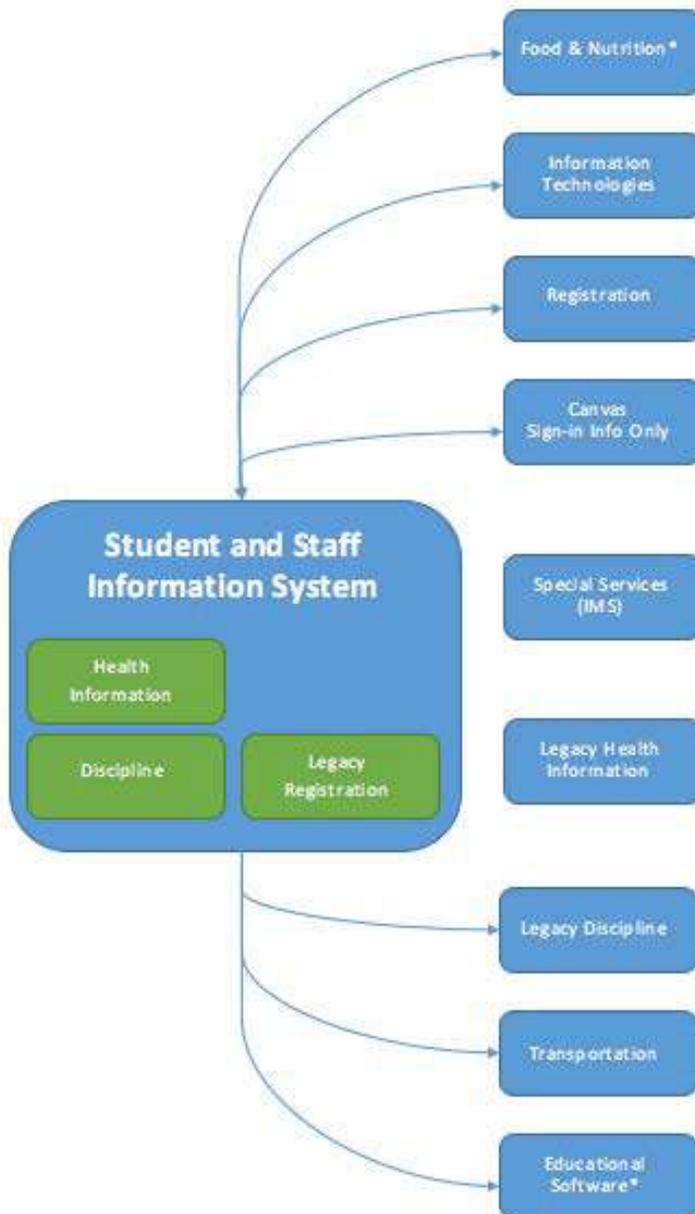| | | |
|---|---|---|
| 4.B - Ensure robust data center, network, and support systems support and allow continued growth of digital resources in instruction and business operations. | | **Ongoing** |
| 4.B.1 - Annually forecast network utilization needs and continually monitor network use and performance to ensure capacity exceeds demands | Capacity needs for upcoming year forecasted | Feb-Mar annually |
| 4.B.1.a) Set 70% utilization threshold to drive upgrades or addition of infrastructure or internet bandwidth | Additional capacity added to address utilization | As needed |
| 4.B.2 - Leverage Universal Services (e-rate) funding for both Category 1 and Category 2 resources | Needs identified, and application completed | Annually by e-rate deadline |
| 4.B.3 - Annually evaluate core data center hardware system performance. Refresh core infrastructure hardware within 5 years | Hardware performance evaluated annually | Core hardware refresh 2020 |
| 4.C- Identify metrics related to technical support requirements in 1:1 environments | Recommendations by January 30, 2019 | Annual assessment |
| 4.C.1 – Benchmark technical support best practices and staffing protocols for 1:1 multi-high school districts | Create guiding principles and expectations document | February 2019 |
| 4.C.2 – Identify re-alignment opportunities within existing support structures for district and building level | Re-alignment of staffing to District goals | Annually |

**APPENDIX:**

**APPENDIX A:**

Data System Current State:

Our current data input system starts with our student and staff information systems and either pushes into separate systems in each department or each department's system pushes into the SIS. In some cases, the SIS doesn't connect with departmental systems at all.

Present State

Food & Nutrition *

Information Technologies

Registration

Canvas Sign-in Info Only

**Student and Staff Information System**

Health Information

Discipline

Legacy Registration

Special Services (IMS)

Legacy Health Information

Legacy Discipline

Transportation

Educational Software *

Data System Future State (July 2020)

The future Data System would encompass an integrated SIS system with clear One Roster or API connectivity for data flow between each department and the SIS. Designated data tables will flow into a Data Warehouse, which will be used to develop data dashboards for each departmental system.

Future State
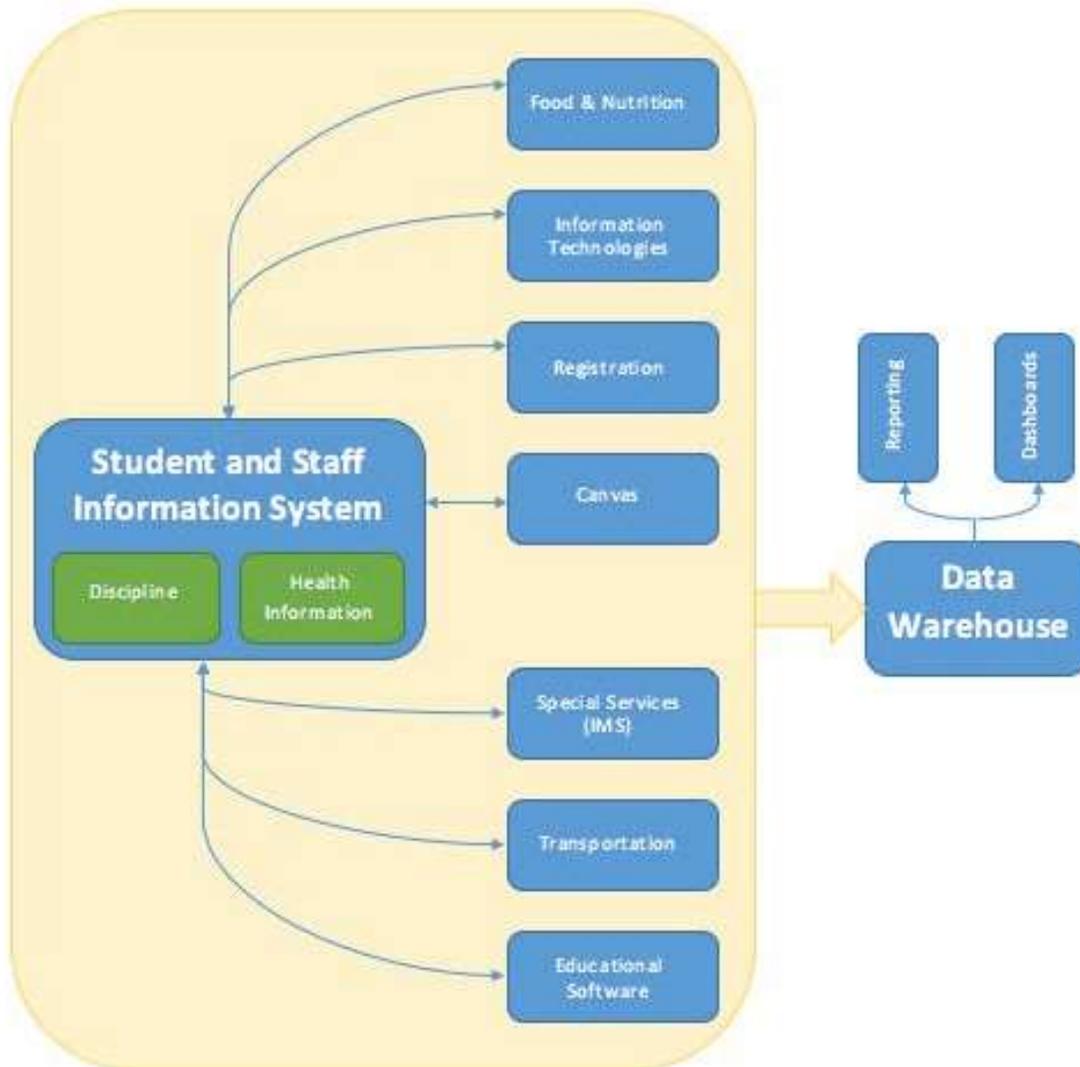
Cedar Rapids Community Schools- Technology Plan Timeline

| | Action | 2018-2019 | 2019-2020 | 2020-2021 | 2021-2022 |
|---|---|---|---|---|---|
| **Clear Learning Outcomes for Students** | Identify clear future-ready learning outcomes for student by grade-level bands aligned to International Society for Technology in Education (ISTE) standards for students<br>Publish a scope and sequence for digital citizenship instruction | Adopt/Update Digital Literacy Standards for grade level spans (PK-2, 3-5, 6-8, 9-12)<br><br>All priority standards distributed PK-12 by June 2018 | Design and implement embedded technology literacy curriculum and performance expectations<br><br>Grades 6-12 | Design and implement embedded technology literacy curriculum and performance expectations<br><br>Grades PK-5 | Review and refine annually as needed |
| | Establish metrics to assess student learning outcomes | Review and refine technology literacy curriculum and assessment system<br>Essential Questions<br>Proficiency scales or rubrics<br>Potential assessments or demonstration products<br>Grades 6-12 | Review and refine technology literacy curriculum and assessment system<br>Essential Questions<br>Proficiency scales or rubrics<br>Potential assessments or demonstration products<br>Grades PK-5 | Review and refine annually as needed | Review and refine annually as needed |
| | Embed future-ready learning outcomes within each core content area | | Units of studies identified in curriculum maps through professional Learning communities with embedded ISTE standards<br><br>Grades 6-12 | Units of studies identified in curriculum maps through professional Learning communities with embedded ISTE standards<br><br>Grades PK-5 | Review and refine annually as needed |
| | Provide direct instruction to all students on the use of core resources and systems provided for learning, including collaboration and productivity solutions, learning management system, assistive technology resources and digital networks | Core resources and systems provided for learning identified for staff;<br><br>Age appropriate sample lessons for direction instruction created for each resource | Staff provide direct instruction to all students on how to access and use core instructional resources<br><br>Age appropriate sample lessons reviewed/updated annually or needed based on resource | Staff provide direct instruction to all students on how to access and use core instructional resources<br><br>Age appropriate sample lessons reviewed/updated annually or needed based on resource | Review and refine annually as needed |

| | | | | | |
|---|---|---|---|---|---|
| **Clear Learni** | Identify clear learning outcomes for staff based on International Society for Technology in Education (ISTE) standards for teachers | Teacher professional learning outcomes identified and developed as professional competencies. | Review and refine annually as needed | Review and refine annually as needed | Review and refine annually as needed |

| Action | 2018-2019 | 2019-2020 | 2020-2021 | 2021-2022 |
|---|---|---|---|---|
| Provide personalized learning opportunities for staff to improve instructional design strategies and meet staff learning outcomes | Technology professional learning is designed as both direct instruction adult learning opportunities as well as job embedded learning opportunities all. | Core PL identified and designed for all. Supplemental PL identified and designed for extension learning and personalized professional learning. | Review and refine annually as needed | Review and refine annually as needed |
| Identify expectations for staff use of core District digital resources and systems | Per Teacher Practice Profile Data, at least 90% of teachers use technology every day, including some of the following areas: research, lesson planning, organization, administrative tasks, communications, student achievement data, and collaboration. | Per Instructional Practices Inventory-Tech Data will demonstrate at least 15% in levels 5-6 (higher order, deeper thinking levels) in IPI buildings | Review and refine annually as needed | Review and refine annually as needed |
| Provide direct instruction to all staff in the use of core resources and systems provided for learning and instruction, including collaboration and productivity solutions, learning management system, assistive technology resources and digital network | Design and implement a Professional Learning Competency System that incorporates micro-credentialing competencies. Micro-credentialing will be designed for both acknowledgement and growth for development. | Review and refine annually as needed | Review and refine annually as needed | Review and refine annually as needed |
| Develop assessments to determine staff skill and support needs | | Professional development planning includes an assessment of district and teachers' needs. The assessment is based on the Professional Learning Competency System and uses a Teacher Practice Profile—self scoring and reflection—to monitor both teacher and system progress. | Review and refine annually as needed | Review and refine annually as needed |
| Identify tech integration strategies in weekly PLC meetings to benefit student learning. | | Identify tech integration strategies in weekly PLC meetings to benefit student learning Evidence in unit designs | Review and refine annually as needed | Review and refine annually as needed |

| | 2018-2019 | 2019-2020 | 2020-2021 | 2021-2022 |
|---|---|---|---|---|
| **Access to Resources** Implement mobile devices for 24/7 access for staff PK-12 (teachers and administrators) Provide other staff mobile or desktop device as appropriate for their work needs | Refresh Middle School computers Mobile devices for high school staff Identify device options to address support staff needs | Implementing 1:1 mobile device for 24/7 access for high school students Mobile devices for middle school staff | Implementing 1:1 mobile device for 24/7 access for middle school students Mobile devices for elementary school staff | Providing 2:1 mobile device allocation for elementary students |

| Action | 2018-2019 | 2019-2020 | 2020-2021 | 2021-2022 |
|---|---|---|---|---|
| Implementing 1:1 mobile device for 24/7 access for 9-12 students<br><br>Providing 2:1 mobile device allocation for elementary students | | | | |
| Identify criteria for determining 1:1 device specifications | Device specification needs identified for each level (HS, MS, ES) Reviewed annually | Review device specification annually | Review device specification annually | Review device specification annually |
| Develop and provide orientation for staff on 1:1 learning environments. | Annual orientation for high school staff starts | Annual orientation for middle school staff starts- | Review and refine annually as needed | Review and refine annually as needed |
| Develop orientation and subsequent programs to inform users and families about 1:1 goals | Develop orientation materials | Orientation and subsequent programs provided to inform high school families about 1:1 goals | Orientation and subsequent programs provided to inform middle and high school families about 1:1 goals | Review and refine annually as needed |
| Review and create or modify necessary policies, procedures, and management systems related to 1:1 resource distribution and management. | Acceptable use policy, device loan agreement, and damage/loss protocols updated | Management system identified, and protocols established within buildings | Review and refine annually as needed | Review and refine annually as needed |
| Identify and expand access to community-based wifi access to support student learning needs | Increase awareness and community engagement related to need for community-wide internet access<br><br>Identify current community based wifi access locations for students<br><br>Expand wifi access coverage at buildings to cover school grounds | Identify options and associated costs for District to establish community wifi or LTE network for students' internet access outside of school<br><br>Continue community engagement conversation | Continue community engagement conversation | |

**Robust Infrastructure and Support Systems**

| Action | 2018-2019 | 2019-2020 | 2020-2021 | 2021-2022 |
|---|---|---|---|---|
| Ensure foundational systems integrate and support the District's learning and operational needs | Review district's student information system (SIS) and provide recommendations for possible upgrade or replacement<br><br>Research data consolidation and reporting systems (data warehouse) that can provide dashboarding capability of key student data | Acquire and deploy data warehouse system that consolidates district student data and provides real-time dashboards of important information to teachers and administrators<br><br>Reassess current Learning Management System (LMS) options to ensure systems alignment support staff and student learning needs | Review and refine annually as needed | Review and refine annually as needed |

| Action | 2018-2019 | 2019-2020 | 2020-2021 | 2021-2022 |
|---|---|---|---|---|
| | | Reassess current cloud productivity suite to ensure system aligns to staff and student learning needs | | |
| Ensure robust data center, network, and support systems support and allow continued growth of digital resources in instruction and business operations. | Annually forecast network utilization needs and continually monitor network use and performance to ensure capacity exceeds demands | Annually evaluate core data center hardware system performance. Refresh core infrastructure hardware within 5 years | Core hardware refresh summer 2020 | Annually leverage Universal Services (e-rate) funding for both Category 1 and Category 2 resources |
| | Annually leverage Universal Services (e-rate) funding for both Category 1 and Category 2 resources | Annually leverage Universal Services (e-rate) funding for both Category 1 and Category 2 resources | Annually leverage Universal Services (e-rate) funding for both Category 1 and Category 2 resources | |
| Identify metrics related to technical support requirements and re-evaluate existing building and district technology support levels. | Benchmark technical support best practices and staffing protocols for 1:1 multi-high school districts | Monitor support needs annually and adjust structures as needed | Monitor support needs annually and adjust structures as needed | Monitor support needs annually and adjust structures as needed |
| | Identify re-alignment opportunities within existing support structures for district and building level | | | |