Technology Roadmap
One to One Plan
18 December 2017
School could be different.
School could be better.

Meta-Analysis of 1-1 Laptops
- Increased achievement in ELA, arts, writing, math, and science
- More student centered and project-based instruction
- Improved engagement
- Improved teacher-student relationships

“For such a program to be effective...schools must focus on crafting comprehensive plans that cover everything from infrastructure to curriculum to pedagogy to professional development.”
ROADMAP

**Concept** (Dec - March)

- Idea Generation
  - Requests
  - Customer Pain
  - Review Best Practices
  - Legislation

**Research** (April - June)

- Assess Industry
  - Benefit Assessment
  - Curricular Needs
  - Assessment Needs
  - Funding

**Analysis** (July - Sept)

- Business Analysis
  - Cost/Benefit
  - Resources Required
  - Capital Expenses
  - Anticipated Outcomes

**Develop** (Oct - now)

- Strategize Tech Plan
  - Technology Grouping
  - Professional Development
  - Curriculum
  - Develop Budget
  - Develop Timeline

**Launch**

- Implementation
  - Finalize Plan
  - Distribute Plan
  - Publish Plan
  - Budget Allocation
  - Training

**Key Deliverables**

- Concept Docs
- Research Report, Supporting Documents, Definition Statement
- Business Case, Product Requirement Document
- Schedule, Technology Plan Document, Forecast Budget
- Launch Plan, Launch Budget, Student Benefit Forecast Target Launch Date
ACADEMIC TECHNOLOGY VISION

To ensure unprecedented, world-class academic results with technology as a powerful enabler; to provide equitable, rigorous, joyful, engaging, future-ready learning to every student in every school, every day.
Vision in Context

**Devices**
- 1:1 Initiative
- Asset Management System
- Theft Prevention
- Adequate Resource Allocation

**Infrastructure Services**
- Ubiquitous Internet Access and Network Bandwidth
- Safe and Secure Technology Environment

**Shared Educational Technology Platform**
- Collaborative Tools
- SIS Student/Parent Portal
- Online Learning Tools

**Technology Proficiency**
- Digital Citizenship
- Accelerating Innovation Cohort
- Cyber Security

**Data Reporting**
- Data Warehouse
- Self-Service Reporting
STRAATEGIES FOR AN EMPOWERED AND ENGAGED COMMUNITY OF LEARNERS

KNOWLEDGE BUILDING

CREATION

LOVED. CHALLENGED. PREPARED.
Knowledge Building

Advocacy

Creation

Knowledge Building

Curriculum and Canvas

LOVED. CHALLENGED. PREPARED.
<table>
<thead>
<tr>
<th>Community Experts</th>
<th>Publication</th>
<th>Blogging</th>
<th>Rapid Feedback Peer Editing</th>
<th>Video Production</th>
<th>3D Printing</th>
<th>Internet-based Research</th>
<th>Textbooks</th>
<th>Digital</th>
<th>Simulations</th>
</tr>
</thead>
</table>

Computers for every student

<table>
<thead>
<tr>
<th>Agency</th>
<th>Advocacy</th>
<th>Creation</th>
<th>Knowledge Building</th>
</tr>
</thead>
</table>

Curriculum and Canvas

**LOVED. CHALLENGED. PREPARED.**
<table>
<thead>
<tr>
<th>SYNERGY</th>
<th>Promote Equity</th>
<th>Empower our People</th>
<th>Ensure Excellent Schools</th>
<th>Educate the Whole Child</th>
<th>Engage Families</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>21\textsuperscript{st} Century Skills</td>
<td>Shared content and planning for teachers</td>
<td>Improve attendance and engagement</td>
<td>Authentic pre-career opportunities</td>
<td>Access to classroom resources and child’s progress</td>
</tr>
<tr>
<td></td>
<td>Distance Learning Opportunities</td>
<td>Time savings for teachers</td>
<td>Better instructional decisions</td>
<td>Improved feedback to support growth</td>
<td>Technology supports for parents</td>
</tr>
</tbody>
</table>
PHASED ROLLOUT STRATEGY

Fully-Integrated Curriculum and Professional Development Support

17-18
AIC 6-8

18-19
All 6-8
AIC 9

19-20
All 9-12
AIC K-5

20-21
All K-5
AIC 6-8 Step Back

Ongoing data collection and evaluation
LEADING WITH LEARNING

January-June:
- Course Companion (LEAP and Curriculum)
- LEAP Leaders and initial LEAP Integration School Leaders PD

March-June:
- PD Training Center: Devices, Platforms, Curriculum Integrations

June-August:
- Full LEAP Integration
- PD Day Integration
- Digital Citizenship for Students

August-October:
- Student Rollout
- Ongoing Instructional Support and Admin Coaching

October-January:
- LEAP Program Rollout

2018-2019 Middle Grades
BUDGETING AND LOGISTICS

2018

BUDGETING
Device Selection
Logistics Plan in Place
Contract to City Procurement

Feb.-April

WAREHOUSE AND SET UP
Storage Setup and Configuration
Prepare Schools

May-Aug.

SCHOOL DELIVERY
Delivery to Schools
OCTO Setup Plan for distribution to Students

Sept.-Oct.
Device Versatility for All Content Areas

- World-facing camera
- Pen and touch integration
- Light weight
- External microphone, probes and peripherals
- Accessibility support
- Conforms to technical requirements of software in use.
Device Versatility for All Content Areas

- World-facing camera
- Pen and touch integration
- Light weight
- External microphone, probes and peripherals
- Accessibility support
- Conforms to technical requirements of software in use.
Risks for Mitigation

- Procurement and personnel timeline
- Hiring quality technical support personnel or contractors
- Training event for principals and APs
## Appendix A

### Phase I Rollout Comparison

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Strengths</th>
<th>Risks</th>
</tr>
</thead>
</table>
| Middle School 6-8 | • Schoolwide culture change  
                  • Focused curriculum and PD support  
                  • Relatively small numbers of schools | • Real needs will persist in high school, elementary.  
                  • Equity gaps may persist due to better implementation at some schools. |
| Grade 3 and 6     | • Two grade years instead of 3 to support  
                  • SY 19-20 doesn't require as much student startup time. | • Older students at school feel unserved.  
                  • Large number of elementary schools to serve before we build technical support staff and expertise.  
                  • Multiple grade bands of LEAP support to adapt. |
| Wards 5, 6, 7, 8  | • Intentional mitigation of equity gaps  
                  • All grade bands served.  
                  • Largest schools generally not in this group. | • Large curriculum and PD lift due to new work encompassing all grade bands.  
                  • District must support two versions of everything – curriculum, PD, assessment.  
                  • Very large number of schools. |
## Augmenting Our Devices: Key Technology

<table>
<thead>
<tr>
<th>Device</th>
<th>Rationale and capability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Device monitoring software</td>
<td>Allows teachers to monitor and manage devices of the whole class in real time.</td>
</tr>
<tr>
<td>Next generation interactive panels</td>
<td>Allows teachers and students to wirelessly share screens on whole-class display. Also useful for distance learning.</td>
</tr>
<tr>
<td>Device tracking and/or etching</td>
<td>Theft and loss prevention</td>
</tr>
<tr>
<td>Assistive technology or special-needs versions of devices</td>
<td>Accessibility</td>
</tr>
</tbody>
</table>
# Appendix C
Draft Training and Support (SY 16-17)

<table>
<thead>
<tr>
<th>Time Frame</th>
<th>Who?</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>February-March</td>
<td>Secondary LEAP Leaders</td>
<td>LEAP module Course Companions: Canvas power tools embedded in Unit 4 LEAP modules</td>
</tr>
<tr>
<td>April-June</td>
<td>Middle grades teachers</td>
<td>Unit 4 LEAP with Course Companions: Teachers experience key tools (Canvas) to support learning of LEAP content.</td>
</tr>
<tr>
<td>April-June</td>
<td>OCTO technicians and contractors</td>
<td>Configuration and help desk support of devices</td>
</tr>
<tr>
<td>May-June</td>
<td>School leaders</td>
<td>Rollout plan, roles, logistics, expectations</td>
</tr>
<tr>
<td>May-August</td>
<td>School POCs (DSL, etc.)</td>
<td>In-person overview of logistics plan + Canvas self-study to account for late hiring.</td>
</tr>
<tr>
<td>May-August</td>
<td>Technical coaches</td>
<td>Basic support of all schoolwide technology, full year vision, train the trainer for September teacher-facing modules.</td>
</tr>
<tr>
<td>May-August</td>
<td>Librarians</td>
<td>Digital Citizenship student-facing module and student assessment.</td>
</tr>
</tbody>
</table>
## Appendix D
Draft Training and Support (SY 17-18)

<table>
<thead>
<tr>
<th>Time Frame</th>
<th>Who?</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>August-September</td>
<td>Teachers</td>
<td>Plan as part of LEAP Module 1</td>
</tr>
<tr>
<td>September-October</td>
<td>Students</td>
<td>Digital Citizenship training and assessment</td>
</tr>
<tr>
<td>September-April</td>
<td>Teachers</td>
<td>Monthly coaching modules led by tech coaches and librarians</td>
</tr>
<tr>
<td>October</td>
<td>Students</td>
<td>Startup training – device use and care.</td>
</tr>
<tr>
<td>August-June</td>
<td>Teachers</td>
<td>Self-study modules on key software.</td>
</tr>
<tr>
<td>August-June</td>
<td>Students</td>
<td>Course companions</td>
</tr>
</tbody>
</table>
## Appendix E: IRDP Outline

### Work Plan Group

<table>
<thead>
<tr>
<th>Office</th>
<th>Participants</th>
</tr>
</thead>
</table>
| OTL    | Dewayne McClary: Educational Technology  
         | Nicole Klues: Canvas  
         | TBD from Corie Colgan's team: Curriculum  
         | Jen Boudrye: Librarians  
         | Karen Cole |
| OCOO   | TBD from Beulah Daniel's Team  
         | TBD from Doug Hollis' Team |
| OSS    | TBD from Jane Spence's team  
         | TBD 1-2 principals |
| OCTO   | TBD |
| OE     | TBD from Liz McCarthy's team  
         | TBD from Andria Caruthers' team |
| OFPE   | TBD from Vincent Baxter's team |