



## Annual Operating Plan Technology – 2017-18

We will provide secure and reliable learning environments that will allow students and staff to use technology in an effective and seamless manner.

**Goal:** Increase staff knowledge of the technology available for teaching, learning and workplace applications

**Focus on Computational Thinking** (Responsibility: Superintendent of Education (D. Abbey), Educational Technology Team)

<b>Strategies</b> (What will we do?)	<p>Provide workshops and planning sessions with school and system staff to increase awareness and knowledge of Computational Thinking to support the 21<sup>st</sup> Century competencies.</p> <p>Note: Computational Thinking is the process involved in formulating a problem and expressing its solution(s) in such a way that a computer (human or machine) can effectively implement.</p>
<b>Evidence of Progress</b> (How well did we do it?)	<ul style="list-style-type: none"> <li>• Consultation with other School Boards and stakeholders around effective learning and teaching in the area of Computational Thinking (Fall 2017)</li> <li>• Design, prepare, and implement professional learning opportunities for:             <ul style="list-style-type: none"> <li>○ Program Teams</li> <li>○ Administrators</li> <li>○ Digital Lead Learners</li> <li>○ Students</li> </ul> </li> <li>• Appearance of strategies supporting Computational Thinking in schools (classrooms, Learning Commons, MakerSpaces)</li> <li>• Collect data with participants using tools developed 2016 17 to measure degree of implementation and impact on instructional practices</li> <li>• Connections to Computational Thinking &amp; Problem Solving in Ed Tech Projects. (Fall Spring 2017 18)</li> <li>• Development of a Computational Thinking/Coding continuum connected to curriculum and Revised Math Strategy (RMS). (2018 19)</li> </ul>
<b>Status</b> (Is anyone better off? How do we know?)	<p>The Education Technology Team has supported professional learning days on the topic of Computational Thinking with Administrators (GrEAT &amp; Director’s Meetings), Digital Lead Learners, students, and teachers (through Ed Tech Projects). Most recent events include Coding Faire on Sat, May 12<sup>th</sup>, 2018 and Computational Thinking professional learning day for all Program Team staff (Elementary Program, Student Success, Special Education, Indigenous Education) on June 15, 2018.</p> <p>The Education Technology Team has met with a Computational Thinking focus group including members from the Elementary Program Team. In process of developing a document highlighting What is Computational Thinking; What is Coding; Why Teach with Computational Thinking in Mind; Who is Computational Thinking For; Where is Computational Thinking in the Curriculum Additional Resources. The development of a Computational Thinking continuum or matrix which offers age appropriate examples of Introductory,</p>

	Intermediate, and Advanced tasks (both plugged and unplugged) will enhance teaching and learning in the classroom. Targeted deployment for both resources is for fall 2018.
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**Focus on leveraging technology tools and resources to promote learning and communication**

(Responsibility: Superintendent of Education (D. Abbey), Educational Technology Team)

<b>Strategies</b> (What will we do?)	Design and deploy a new Education Technology website for the purposes of hosting content that supports learning and teaching with technology as well as promotes communication and sharing with various stakeholders.
<b>Evidence of Progress</b> (How well did we do it?)	<ul style="list-style-type: none"> <li>• Work with IT and Communication department to develop an intuitive and user friendly website which can support staff in use of technology. (Fall 2017)</li> <li>• Import, build, and publish content for the Education Technology website.</li> <li>• Continue to create new content, as needed, in support of learning and teaching around the 21<sup>st</sup> Century Competencies.</li> <li>• Based on feedback from stakeholders improve effectiveness of site to support users.</li> </ul>
<b>Status</b> (Is anyone better off? How do we know?)	The shell of the website was created based slight changes to “School Site” template. Modifications include changes to page layout, site navigation, footer modification, and investigation of various “blocks” and properties that make up the website. Graphics and logos have been developed in consultation with communication department. Education Technology team members are in process developing new content and migrating the content and resources from past wikis and other online locations. Site will go live in late August or early September 2018.

**Goal:** Optimize our data systems to ensure that information is accurate, reliable, and easily accessible.

**Focus on developing a plan for secure communication and learning environments for parents and students.**

(Responsibility: Superintendent of Education (D. Abbey), Information Technology Services Management Team)

<p><b>Strategies</b> (What will we do?)</p>	<p>Development Parent and Student Portal Plan.</p>
<p><b>Evidence of Progress</b> (How well did we do it?)</p>	<ul style="list-style-type: none"> <li>• Establish design components for both Parent and Student Portals.</li> <li>• Identify a platform needed to support functionality. (January 2018)</li> <li>• Pilot usage of the Parent Portal with a small group of Digital Lead Learners. (Spring 2018)</li> <li>• Develop an Implementation timeline and training for rollout 2018 19. (Spring 2018)</li> <li>• Create resources on best practices using the Parent Communication Portal. (Spring 2018)</li> <li>• Deployment of the Parent Portal. (2018 19)</li> </ul>
<p><b>Status</b> (Is anyone better off? How do we know?)</p>	<p>In the Fall and Spring members of the IT Team, Ed Tech Team (including TELTc and DeLC), and subcommittee with Administrators met to establish needs for the Parent and Student Portal. Representatives from Edsby, Brightspace (D2L) and HWDSB have participated in meetings to share on a variety of options that are under consideration. Further meetings are planned to continue investigation and rollout strategies through spring 2018.</p> <p>Following presentations from the HWDSB who went live with their parent portal Feb 2018 we decided to use the PowerSchool Parent Portal Application which is included in our current PowerSchool licensing agreement as opposed to integrating another vendor’s application with our student information system.</p> <p>In April 2018, the Ministry granted Brightspace the contract for online learning environments. This has a parent communication functionality and pairs with PowerSchool Parent Portal functionality providing a further communication utilities and integration with the student learning environment in a secure manner. There is no cost to Board for this PowerSchool/Brightspace combination and with Hamilton 6 months ahead of us on implementation pathway we have ability to piggyback on their learning.</p> <p>Because of the time waiting for the Ministry approval of Brightspace and budget considerations we will start the pilot in fall 2018 and look to progressively implement the application in the Spring 2019 for full implementation by fall 2019.</p> <p>Professional development of this platform for teachers will be part of the Technology Annual Operating Plan in 2018 19.</p>

**Focus on Data Integration of LITE with PowerSchool** (Responsibility: Information Technology Services Management Team)

<p><b>Strategies</b> (What will we do?)</p>	<p>Integrate our special education system (LITE) with the boards student information system PowerSchool. This integration will eliminate manual updating of special education student data speeding up ONSIS reporting period and eliminating transposition errors by school admin staff.</p>
<p><b>Evidence of Progress</b> (How well did we do it?)</p>	<ul style="list-style-type: none"> <li>• Module for Special Ed Lite installed. (October 2017)</li> <li>• Special Education identify key fields needed to be aligned with PowerSchool and ONSIS. (September 2016)</li> <li>• PowerSchool migrated from the cloud to on premise. (November 2017)</li> <li>• Revised batch process to update the data in place. (October, 2017)</li> <li>• Fully implemented and tested. (November, 2017)</li> <li>• Identify list of other processes that can benefit from PowerSchool Data Integration.</li> <li>• Prioritize implementation plan data integration.</li> </ul>
<p><b>Status</b> (Is anyone better off? How do we know?)</p>	<p>Data mapping is complete. The logic for integration between the two systems is nearing completion. Testing ONSIS compliance and looking to pilot phase this spring with two schools (1 Secondary and 1 Elementary) to test the integration before a system wide rollout in the next school year.</p>

**Goal:** Provide an up-to-date technology infrastructure that meets the needs of classrooms, administration and departments.

**Focus on building back up servers to allow continuity of the boards primary services hosted on our servers.**

(Responsibility: D. Abbey and J. Ecklund)

<b>Strategies</b> (What will we do?)	Create Disaster Recovery and Business Continuity capacity for our student and business systems.
<b>Evidence of Progress</b> (How well did we do it?)	<ul style="list-style-type: none"> <li>• Install back up servers at alternative location to our current data centre.</li> <li>• Test the systems to ensure they can operate from a remote location without the loss of data.</li> </ul>
<b>Status</b> (Is anyone better off? How do we know?)	All Facilities work is complete. All new computer servers installed. Contracts for Bell Canada and Brantford Hydro have been updated to now include connectivity to allow all schools to reach the TRC as a primary site and the SCS disaster recovery location as a secondary site. New Internet service at SCS is operational. Next steps will be for the Server Administrators to start installing the programs and applications onto the new computer servers with a target completion date of June/July 2018.

**Focus on providing up-to-date Technology Infrastructure to remote areas of the board not served by the Bell Fibre network.**

(Responsibility: D. Abbey and J. Ecklund)

<b>Strategies</b> (What will we do?)	Deploying Software Defined Wide Area Network (SD-WAN) devices to schools identified by the Ministry of Education as schools that can benefit by increased network access. Deploying SD-WAN devices to schools that could not be reached by our fibre service provider to increase network access.
<b>Evidence of Progress</b> (How well did we do it?)	<ul style="list-style-type: none"> <li>• Implementation so SD-WAN devices at schools identified by the Broadband Modernization Wave 1 &amp; 2 initiative.</li> <li>• Survey of schools after SD-WAN devices deployed to see if the connectivity network speed is more stable and proves faster access to the internet.</li> </ul>
<b>Status</b> (Is anyone better off? How do we know?)	<p>SD-Wan Solution – Wave 1 schools. Technology is a good idea but with the long term Bell contract in place this precludes us from rolling this out across our district. The intent of the project would be to reduce costs to the board for internet at each school and provide the schools 1 meg data for each student. We currently pay Bell \$775.00 per month for each 1 Gig Fibre connection. To enable SD-WAN at these sites an additional charge of \$800.00 would be layered on top of the \$775.00 which does not make this ministry project more affordable but more expensive in the long run. In lite of this it is recommended that Grand Erie not pursue the Wave 2 rollout of SD-WAN. Any grant money provided by the Ministry can be used to support SD-WAN for the Wave 1 schools for the next few years.</p> <p style="padding-left: 40px;">Wave 1 Schools – 100%</p> <p style="padding-left: 40px;">Wave 2 Schools – Decline Project</p> <p>Update May 2nd, 2018 – Ministry of Education has been in discussions with Bell Canada about the cost Bell is proposing not just for GEDSB but many school board under contract with Bell. Bell is working on revised pricing and depending on what they come back with we can re-examine the feasibility of the project for our Bell Schools.</p>