

Exploring Digital Horizons within the Culture of the New Learning Commons

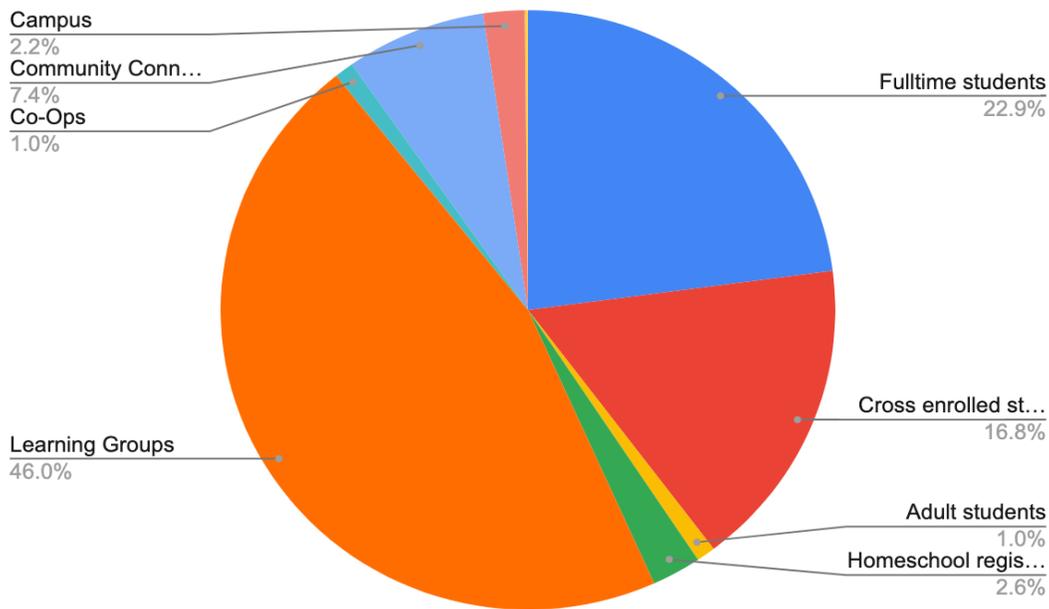
by Pippa Davies

In November 2017 the British Columbia (BC) Ministry launched a review of the education funding model, specifically looking at the needs of public schools and distributed learning. “One of the unique aspects of this funding review in British Columbia was the fact that the province has historically been a leader in K-12 distance, or distributed, learning.” (Barbour & LaBonte, 2018, 2020), British Columbia has consistently had the highest number of students enrolled in distributed learning and the highest proportion of students involved in distributed learning, usually two to four times the national average. Heritage Christian Online School is one of the largest distance learning schools and contributes to leading curriculum development with [StudyForge](#) outstanding professional development, blended learning around the province, and a dynamic virtual blended learning commons. In 2018 Ontario and other provinces have caught up with British Columbia in terms of distance learning and blended learning.

To truly embrace the culture of an innovative and culturally relevant learning commons, we needed to examine the focus within our school culture and explore the demographics of distributed learning in British Columbia. We needed to do extensive research and collaborate with different levels of staff and the community.

Our schools, [Heritage Christian Online School](#) and the campus version of [Heritage Christian School are](#) a blended commons of about 3800 full time students, and over 500 staff members who encourage, educate, and collaborate through different components of face-to-face interactions via the physical commons; or through virtual teaching on video conferencing platforms like [Zoom](#). Twenty-five percent of our distance-learning students have learning challenges and require universal supports, whilst many of our campus students come from lower-income families. Most of our students are homogeneous in that they come from a Christian background, but we also appeal to many students from different faith backgrounds.

This chart reflects the demographics of our students, meeting or schooling in different capacities.



Our new [website](#) and catalogue had to be accessible and visually pleasing to engage all grades and types of learners. Our resources and activities are a reflection of experiential learning in our learning commons, and a lesson on how to engage with distributed learners in varying modalities. Who are our learners? Based on our school learner profile we needed to be engaging with students who now learn independently, creatively, and collaboratively with others (Heritage Christian Online School (HCOS), 2020b). Innovative practices are constant, as we strive to keep the Learning Commons a vibrant and welcoming hub of our schools.

Learning Commons leaders, Carol Koechlin and David Loertscher share on how our environment or culture needs to adapt to our new millennials: “Perhaps we could rethink the role of the cocoon, not as a skin totally protective from the cold cruel world out there, but rather as an environment of mentored experimentation as the pupa prepares to survive and thrive. Thus, we have proposed that the Learning Commons serve a unique purpose in the school as a bridge between educational philosophy being practiced and the real world. As such, the Learning Commons serves school curriculum but also is known as a place for experimenting, playing, making, doing, thinking, collaborating, and growing.” (Loertscher & Koechlin, 2014)

I love this thought that we are an extension of the school culture bridging the gap! Our blended commons include students participating once a week in learning groups in a brick-and-mortar environment, along with traditional distance education within the home environment. Students work with a supervising teacher and support team, including a large special education department, learning services consultants, and a

knowledgeable learning commons team. Because of the range of patrons in our schools, we have a complicated circulation system with different loan patterns stretching from packing shipments, to immediate accessibility via subscriptions and digital resources. We needed to find a library management system that was willing to grow with our school and the changes we anticipated along the way. Our story continues!

Phase one: Two years ago our school, under new leadership, created a mission statement that defined an intentional supportive community, engaged lifelong learners, authentic beliefs, and personalized learning choices (Heritage Christian Online School (HCOS), 2020d). Based on current research with the [Building a Virtual Learning Commons](#) initiative the digital learning commons would house the interface of all of the varying activities which our learning commons hosts, including space for inquiry, collaboration, webinars, contests, think tanks, maker movement and more. Once our digital commons had become a lively, participatory and collaborative experience, we would research a new physical learning commons. This has taken us a couple of years from inception to full integration. Most of the work has been done by learning commons staff with limited technology team support.

Phase two: Planning the new physical building is currently in process. Our virtual commons helped support what criteria would be needed with our campus version. Based on our virtual components, we would design the new physical learning commons with maker spaces, quiet spaces, social spaces, electronic access for computers and whiteboards, pre-school and kindergarten play areas, performing areas and collaborative spaces for teaching, events and contests. There would be mixed open and closed office spaces, with excellent natural or artificial lighting, where needed.

Data and Analysis

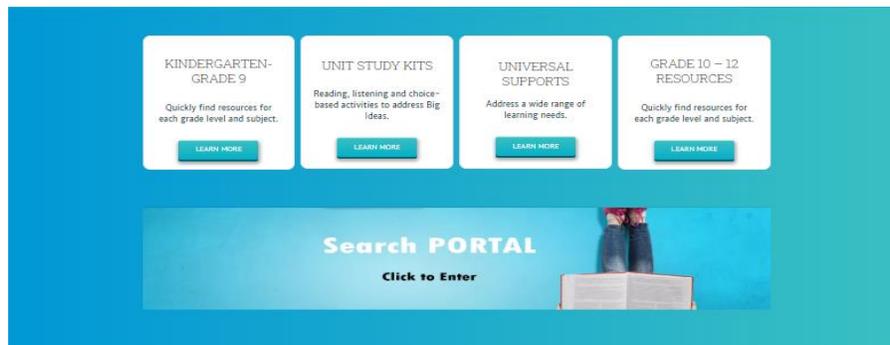
Surveys were sent to our unique set of patrons and we learned that many were frustrated with navigational issues on our previous website. We discovered that most patrons wanted simple terminology, instant access, materials to help decipher the new [BC learning standards](#), quiet and collaborative reading areas, book clubs that met science and [Applied Design, Skills, and Technologies \(ADST\)](#), standards, maker education events, robotics classes, contests, and immersive technologies.

Visual design in e-learning focuses on 'less is more' philosophy, delivering clear concise information that is simple and easy to digest. We are still a work in process, as learning commons staff love to chat! So editing has become a team approach with our design department, IT and administration.

Our learning commons team spent many hours researching a new interface and circulation system. We had experience using [WordPress](#) before, and were attracted to the intuitive CMS drag and drop features of the website theme [AVADA](#). We hoped to encourage all of our team and library patrons to be collaborating on our web pages with blog articles, contests, promotional events like book clubs and read-a-thons. We needed something visually appealing, simple to use and flexible to change. The AVADA format was chosen because it allowed for thematic changes on different pages, a variety of plug-ins (we installed contest plug-ins, event plug-ins, live chat, and security features) and creative menus. We also paid for hosting via the WordPress business team so that our team could have 24-hour support. This has proved invaluable.



Encouraging Christian Community Through Discipleship, Literacy, and Innovation



What is the Search Portal?



The Search Portal is your gateway to Learning Commons resources.

One search query produces results in our database subscriptions, eBooks, physical resources, web linking library and more.



Our current stats show us that since inception 18 months ago we have achieved 169,598 views with 193 posts and 24,781 visitors. On days that we post, we see a significant trend in viewing and engagement. Each staff member in the Learning Commons has a day to post, empowering the democratic aspect of our Learning Commons as a team. We also appeal to guest bloggers to share reviews of books and STEAM (Science, Technology, Engineering, Arts, Math) integration.

Catalogue

As we researched cataloging and circulation systems we compared many of the more popular programs such as [SirsiDynix](#), [Follett](#), [Mandarin](#), [Oliver5](#) and finally settled on [Insignia](#) for cost reasons and for the excellent search functions. We have been very happy with the new cataloging system, which allows for our websites, books, kits, and subscriptions (such as [Explora](#), [GALE Cengage](#), and [OverDrive](#)) to be fully authenticated using API (application program interface) technology. This allows for a fully integrated search where patrons can check for currency, age-appropriate content, and different formats (eBook, physical books, websites, lesson plans or articles and audiobooks). We are still working out glitches, making the search process faster and working on the SEO (search engine optimization). On our [interface](#) we have learned to be on the lookout for heavy images, too many plug-ins (which bloat the system), and making sure the sites were accessible for all. Using Google analytics we are analyzing our data and moving towards making sure we are compliant in website optimization, accessibility, and data security.

Our circulation statistics have increased since incorporating the [SORA mobile app](#) on OverDrive and the new Insignia catalogue.

Circulation Statistics 2017-2019 in OverDrive and SORA

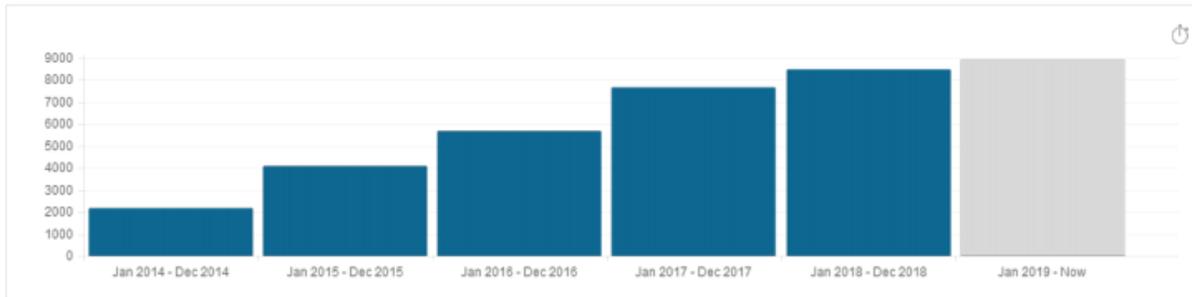
In the chart below you will note that each year our OverDrive circulations have increased steadily along with our unique user activity. Our holds status has decreased as we actively purchased resources and reversed the holds trend. Most of our purchases are tied to curriculum, both digital and physical content, student and teacher requests.

Trends

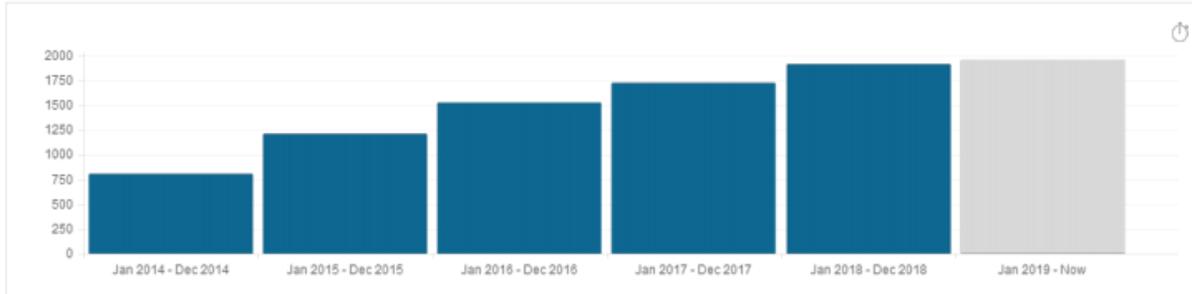
Year over year / User activity

Year over year

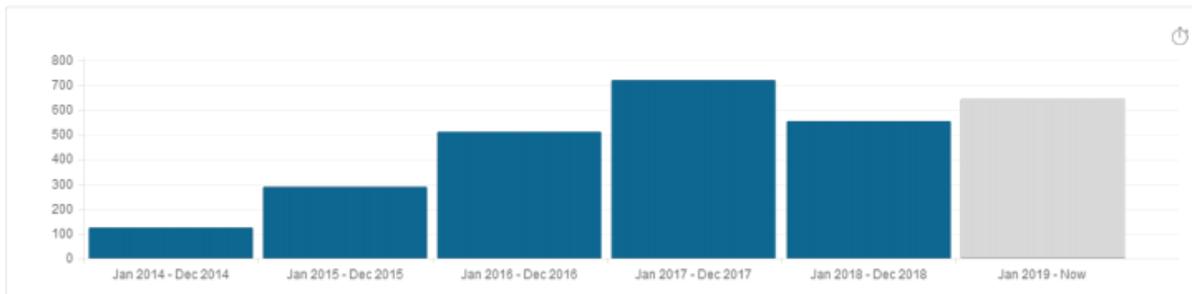
Checkouts: Year over year



Unique users: Year over year

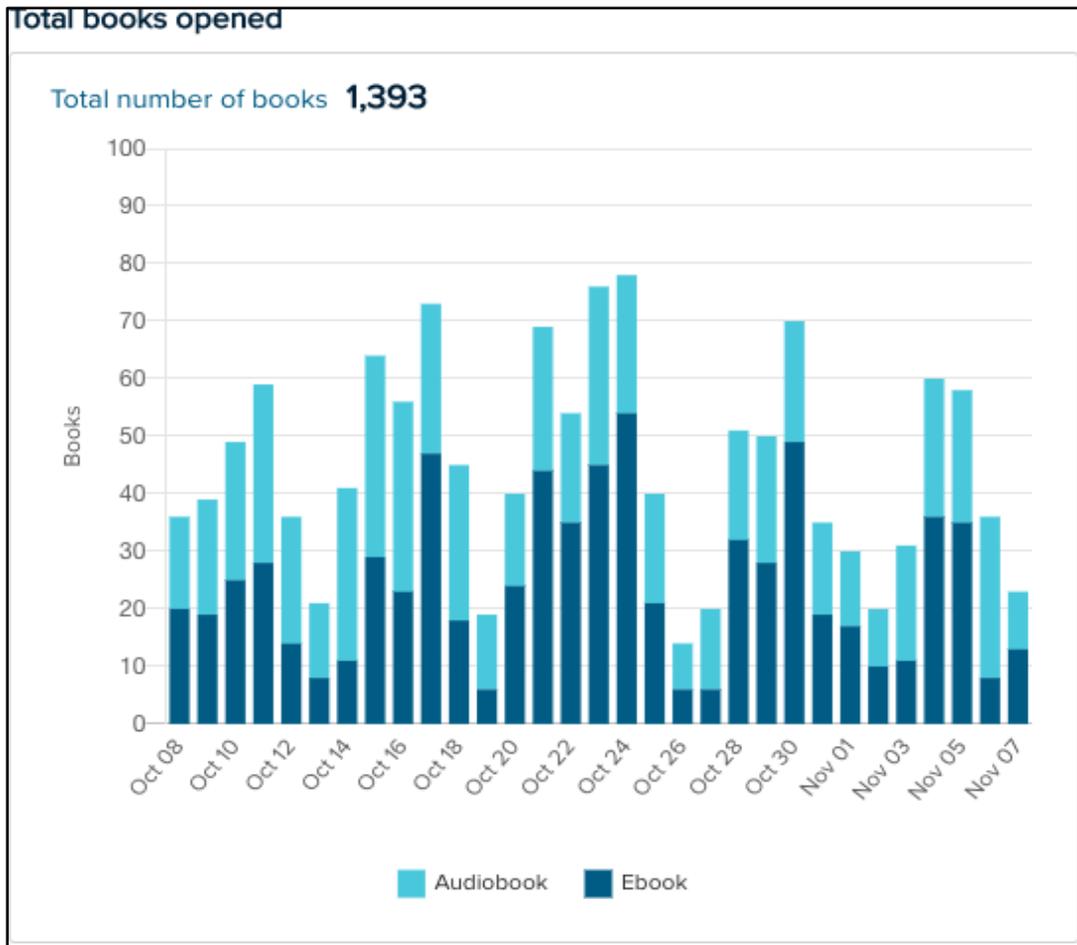


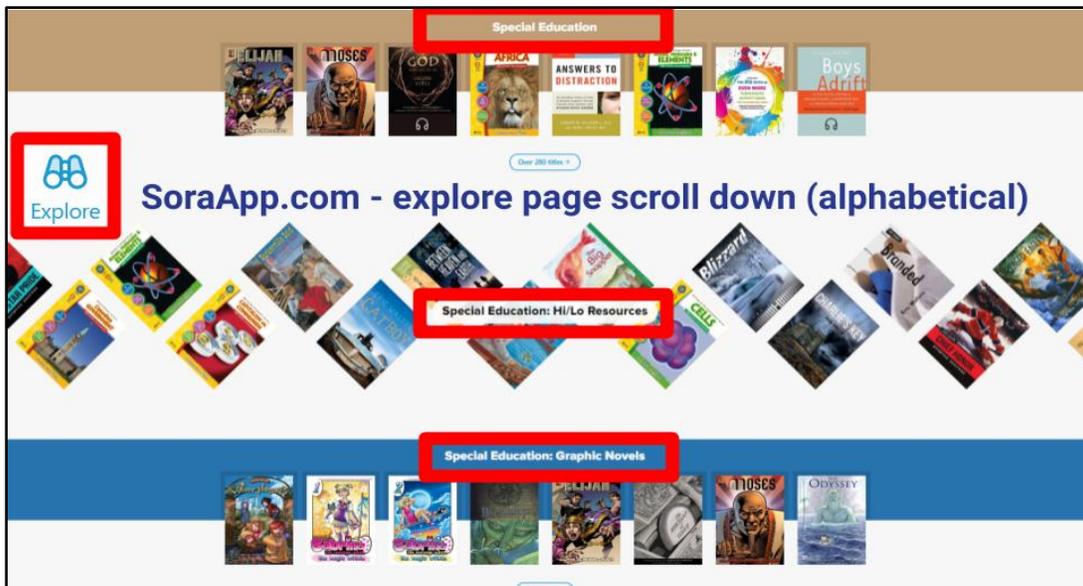
Holds: Year over year



User activity

To meet the demand for universal supports, our team purchased a large number of audiobooks and read-along books to match the “big ideas” in our curriculum, as well as to bolster the fiction and nonfiction collection for all grades. The findings suggest many of our students are now reading by audiobook as shared in this monthly graph. They are meeting the reading requirements by listening and reading with different adaptive technologies.







Adaptations on OverDrive and Sora

- Reading Setting Options
 - **OpenDyslexic font**, or choice of several standard fonts
 - White, black, or tan background
 - Font can be made larger or smaller
- Search for words or phrases within the text
- Touch a word to define
- Touch words or sections to highlight
- Touch and drag over a word or section to add notes
- View notes and highlights on home or account screen
- View recently defined words (Sora App only)

Physical Commons

Insignia Statistics (physical materials) since inception a year ago - 11,515 items were loaned.

Our patrons are entitled to six free return shipments (up to 30 items) of different materials, including unit study kits fully aligned to the [BC Modernized Curriculum](#), supplemental kits (hands-on activities), CD.'s, microscopes, chemistry sets, books, robots, STEAM Kits, textbooks, and universal support such as [Susan Barton](#) workbooks and various materials to help with Dyslexia, Autism, and other challenges.

Collaboration

“Libraries will continue to exist as both “brick and mortar” and, “virtual” institutions in the foreseeable future. Regardless of their being “brick and mortar” or “virtual”, libraries continue to serve “real” users in both environments because library services have

always been tied to a community. Thus, it will be all the more important for libraries to offer relationship-centric information services.” (Tonta, 2009)

If community and relationship were the first priority in our mission, then our first step would be to increase collaboration with patrons who had reference queries.

By installing a live chat plug-in as a reference desk function, all of our staff would have an immediate and fast response time to questions, such as access, booking, and information retrieval. This has been very successful for instilling confidence in our patrons and helping them get going right away. Our statistics show a clear correlation between engaged patrons and less email to staff. Students can get in touch with a library staff member and get answers to their questions without having to wait.

Creative, Critical Thinking and Social Skills

The new standards in BC include creative, critical thinking and social skills within the core competencies.

Student driven events:

Contests: Our contests and literacy events continue to be a big hit with our students throughout the year, and we have incorporated plug-ins to make sure the students can interact with our site and chat with the facilitators. We currently are hosting a photography contest, a SORA badge contest, a read-a-thon/fundraiser contest, a Santa giving event, a writing and poetry contest, a [Dash Robotics](#) contest, a coding club, a 3D printing club and also many summer and winter literacy raffles.

Book Clubs and Maker Events: [Book clubs](#) have become very popular at our school with STEAM book clubs and coding clubs, 3D printing clubs, and literature circles. Our virtual sandbox, or space for creative and critical thinking skills, includes experiential learning in a virtual or physical capacity. Our team of book club moderators offers STEAM-based and literary-based (literature circles) book clubs in a virtual capacity using Zoom and [Flipgrid](#) as platforms for delivery and sharing. In my STEAM book club students complete a module of science standards as they delve into design thinking, using fiction and nonfiction to explore science “big ideas”. They become inventors and investigators as they explore problems either locally or globally. Our Kelowna librarian hosts a [Maker Day](#) once a month where she exposes students to robotics and STEAM integration along with design thinking skills. Campus classroom teachers connect with our learning commons staff to deliver cooperatively planned STEAM inquiry-based sessions via the beautiful [STEM Picture Perfect](#) lesson plans. Our learning groups deliver blended classrooms throughout the province where students meet one-on-one

with a teacher, weekly. Here our Maker Kits, which include: robots [Dash](#) and [Ozobot](#), [JD Robot](#), [Geosmart toys](#), [BrainBuilder](#) sets, [Snap Circuits](#), [Keva planks](#), [Knex](#), [Magformers](#), [Makedo](#), [Raspberry Pi](#), [Arduino](#) and [LEGO Mindstorms](#) are used in abundance, as teachers share hands-on learning and innovative practice. We are constantly adding to the collection of STEAM kits, under the supervision of our STEAM mentors, who deliver workshops mentoring other teachers throughout the province.

Professional Development

Webinar Wednesdays [workshops](#) are held once a month as a means to share educational content, train new patrons, explore our subscription databases and invite our community to share their strengths. We have facilitated author workshops on Zoom and in the classroom, and invited speakers to share on diversity, including residential schools and Remembrance Day. We also host events for research skills and digital citizenship for all grades.

Inclusion and Universal Supports

Hands-on activities are part of what makes personalized learning so inviting in our schools. Our mission statement includes the following: a learner [profile](#), a teacher [profile](#) and a school mission [statement](#). Our goal is to encourage students to be engaged in lifelong learning and it is our mission to help encourage them with immersive technologies and current reliable resources. We have spent time collaborating with our Special Education Department to deliver universal supports, both digitally and physically, with adaptive technologies like Google Chrome Read Write, Dyslexia materials, a huge collection of audiobooks on SORA, Susan Barton materials, reference books and workbooks for students on the spectrum.

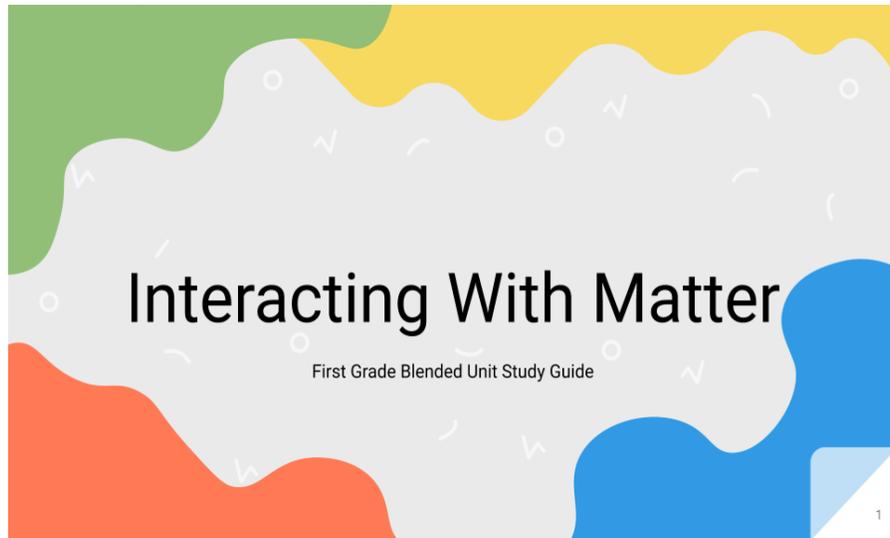
Subscriptions as Learning Resources

Our list of subscriptions may be found [here](#). Popular resources include [Reading Eggs](#), [BrainPOP](#), [Discovery Education Streaming](#), [Mystery Science](#), [Matific](#), [Gizmos](#), [Tynker](#) (coding) and research databases, such as [Explora](#), [Gale Cengage](#), [PebbleGo](#) and [Curio](#). The research subscriptions, especially, offer adaptive technologies and differentiated learning such as closed captioning, diverse speed of the video, transcripts, text-to-speech, faster reading or slower reading, highlighting of text while reading aloud, enhanced text visibility, word definitions and text format changes.

Creative and Engaging Curriculum

Our learning commons team has created and published unit study kits that help address many of the standards within our BC Modernized Curriculum. These kits tie directly to

the books (both physical and digital) and databases we have in our Learning Commons. Patrons may either order a physical kit, which includes a parent guide, or a digital kit which may be accessed immediately on the OverDrive or SORA (student app) eBook library. The kits are inquiry-based, and encourage diversity with First Peoples Principles, audio options and multiple facets of differentiated learning. They also include many subject areas with a unique STEAM or cross-disciplinary approach. In each kit, students can see which competencies are being met, and teachers can assess student work with rubrics and assessment features. Here is an example of one of our unit study kits in newly formatted Google slides.



Collection Development

Our collection development is driven by the curricular and core competencies, as set out in the BC Modernized Curriculum. Given that we only receive a portion of government funding, it can be challenging to finance a growing learning commons. Our administration team has supported the needs of a vital learning commons, as they fully understand the relevance of digital resources and the need for cross-disciplinary audiovisual resources to help our students learn according to their personalized choice and modality. We support our teachers and families' choices, as they choose engaging curriculum, quality fiction and non-fiction that meet the individual needs of our students.

As we move into the new decade we are aware that our student needs will change with the constantly expanding technological changes. We look forward to being on the cutting edge of these changes, learning together as a vibrant and engaging community. In a recent audit by the BC Ministry our school was commended for an excellent learning commons that included widely curated materials and relationship via a live chat reference desk. The learning commons theme which imbibes democracy in relationship and an active blended commons is working to serve our community at large.

References/Resources

Advanced Brain Technologies. (2020). Brainbuilder Pc Family Edition Digital Download. Retrieved from <https://advancedbrain.com/shop/brainbuilder-pc-family-edition/>

Arduino. (2020). Home page. Retrieved from <https://www.arduino.cc>

AVADA. (2020). AVADA: Design Visually. Create Efficiently. Retrieved from <https://avada.theme-fusion.com>

Barbour, M.K. & LaBonte, R. (2018). *State of the Nation K-12 ELearning in Canada 2018 Edition*. Retrieved from <https://k12sotn.ca/wp-content/uploads/2019/01/StateNation18.pdf>.

Barbour, M.K. & LaBonte, R. (2020). State of the Nation: K-12 E Learning in Canada. Retrieved from <https://k12sotn.ca/>

Barton, S. (2020). Barton Reading & Spelling System. Retrieved from <https://bartonreading.com>

BrainPOP. (2020). A Universe of Learning. Retrieved from <https://www.brainpop.com>

Capstone. (2020). Pebble Go. Retrieved from <https://pebblego.com>

Capterra. (2020). Oliver v5. Retrieved from <https://www.capterra.com/p/182604/Oliver-v5/>

Canadian School Libraries. (2020a). Leading Learning Appendix 6: Building a Virtual Learning Commons. Retrieved from <https://ilsop.canadianschoollibraries.ca/appendix-6-building-a-virtual-learning-commons/>

Canadian Broadcasting Corporation (CBC) Learning & Radio Canada. (2013-2019). Curio.ca. Retrieved from <https://curio.ca/en/>

Canadian School Libraries. (2020b). *Leading Learning: Standards of Practice for School Library Learning Commons in Canada*. Retrieved from <http://ilsop.canadianschoollibraries.ca>

Dash Robotics [Computer software]. (2019). Retrieved from <https://www.dashrobotics.com>

Discovery Education. (2020). Discovery Education Streaming. Retrieved from <https://www.discoveryeducation.com/solutions/streaming-plus/>

EBSCO. (2020). Explora. Retrieved from <https://www.ebsco.com/products/explora>

Edmentum. (2020). Reading Eggs. Retrieved from <https://readingeggs.com>

Elenco. (2020). Snap Circuits. Retrieved from <https://www.elenco.com/brand/snap-circuits/>

Flipgrid friends. (2020). Flipgrid. Retrieved from <https://info.flipgrid.com>

Follett. (2020). Follett – Educational Products, Services, and Technology. Retrieved from <https://www.follett.com>

Gale Cengage. (2020). Library Research – Gale. Retrieved from <https://www.cengage.com/search/showresults.do?N=197>

GEOSMART. (2020). GEOSMART The future of geomagnetic play. Retrieved from <https://geosmart.eu>

Gizmos. (2020). Online Simulations that Power Inquiry and Understanding. Retrieved from <https://www.explorellearning.com>

Heritage Christian School (HCS). (2020). HCS Home Page. Retrieved from <https://heritagechristian.ca>

Heritage Christian Online School (HCOS). (2020a). HCOS Home Page. Retrieved from <https://onlineschool.ca>

Heritage Christian Online School (HCOS). (2020b). HCOS Learner Profile. Retrieved from <https://onlineschool.ca/about-us/learner-profile/>

Heritage Christian Online School (HCOS). (2020c). HCOS Learning Commons. Retrieved from <https://hcslearningcommons.org>

Heritage Christian Online School (HCOS). (2020d). HCOS Mission. Retrieved from <https://onlineschool.ca/about-us/our-mission-values/>

Insingia. (2020). Insignia Library System. Retrieved from

<http://www.insigniasoftware.com/insignia/ILS.aspx>

Keva Planks. (2019). Changing Lives in Schools and Homes. Retrieved from <https://kevaplanks.com>

Knex. (2020). Build Together. Retrieved from <https://www.knex.com>

Lego. (2020). Lego Mindstorms. Retrieved from <https://www.lego.com/en-ca/product/lego-mindstorms-ev3-31313>

Loertscher, D V. & Koechlin, C. (2014). Climbing to Excellence: Defining Characteristics of Successful Learning Commons. *Knowledge Quest* 42 (4): 14-15. Chicago, IL: American Library Association (ALA). Retrieved from http://www.ala.org/aasl/sites/ala.org.aasl/files/content/aaslpubsandjournals/knowledgequest/docs/KQ_MarApr14_ClimbingtoExcellence.pdf

Magformers. (2020). Home page. Retrieved from <https://www.magformers.com>

Makedo. (2020). Home page. Retrieved from <https://www.make.do>

Mandarin. (2012). Mandarin Library Automation. Retrieved from <https://www.mlasolutions.com>

Mark, D. & McNee, D. (2019). Strong Leadership Builds Libraries: The Vital Role of Administrators in the School Library Learning Commons. *Canadian School Libraries Journal*, 3 (3). Retrieved from <https://journal.canadianschoollibraries.ca/strong-leadership-builds-libraries-the-vital-role-of-administrators-in-the-school-library-learning-commons/>

Matific. (2020). Maths Education Platform Designed by Pedagogical Experts. Retrieved from <https://www.matific.com/ca/en-ca/home/>

Mystery Science. (2020). Mystery Science: Lessons for Elementary Teachers. Retrieved from <https://mysteryscience.com>

National Science Teaching Association. (2020). Science Store. Retrieved from https://www.nsta.org/store/product_detail.aspx?id=10.2505/9781681403281

Ozobot. (2019). STEAM Made Simple. Retrieved from <https://ozobot.com>

Province of British Columbia. (2019). BC's New Curriculum. Retrieved from <https://curriculum.gov.bc.ca>

Province of British Columbia. (2020a). Applied Design, Skills, and Technologies. Retrieved from <https://curriculum.gov.bc.ca/curriculum/adst>

Province of British Columbia. (2020b). B.C. Performance Standards. Retrieved from <https://www2.gov.bc.ca/gov/content/education-training/k-12/teach/curriculum/bc-performance-standards>

Rakuten OverDrive [Computer Software]. (2020). Retrieved from <https://www.overdrive.com>

Raspberry Pi 4. (2020). Teach, Learn, and Make with Raspberry Pi. Retrieved from <https://www.raspberrypi.org>

SirsiDynix. (2020). Software & Services for Your Library. Retrieved from <https://www.sirsidynix.com>

OverDrive Education. (2020). Sora. Retrieved from <https://meet.soraapp.com>

RobotShop. (2019). EZ-Robot JD Humanoid Robot. Retrieved from <https://www.robotshop.com/uk/ez-robot-jdhumanoidrobot.html>

StudyForge [Computer Software]. (2015). Retrieved from <http://studyforge.net>

Tonta, Y. (2009). Digital Natives and Virtual Libraries: What Does the Future Hold for Libraries? Retrieved from https://www.academia.edu/255147/Digital_natives_and_virtual_libraries_What_does_the_future_hold_for_libraries

Tynker. (2020). Coding Made Easy. Retrieved from <https://www.tynker.com>

WordPress. (2020). WordPress. Retrieved from <https://wordpress.com>

Zoom. (2020). Zoom for Video, Conference Rooms, & Phones. Retrieved from <https://zoom.us>