Empowering Students With Project-Based Learning and Google Tablets

Content provided by Google for Education
Empowering students with project-based learning and Android tablets

*St. Albans City School*

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Helping moments like these...

...happen again and again and again
A complete education solution, from hardware to content
“Going Google means adopting a culture that extends beyond the classroom walls: it’s about openness, curiosity, and working together.”

– Jim Sill Educator & Trainer
Visalia, California

Empowerment
Discover a world of infinite resources

Choice
Use the right device, anytime anywhere

Teamwork
Work together in real-time

Scalability
Affordable and easy to manage
Students and teachers use Google Apps across multiple devices, so they can work together anytime, anywhere
A choice of devices that are at home in the classroom
Manage 4 devices or 40,000 all from a web browser
Give teachers access to a wide array of education tools for tablets and Chromebooks, all in one place: Google Play for Education

- Android apps
- Chrome apps
- K-12 books
- YouTube videos
More love for learning with Android tablets and Google Play for Education

Choice
Affordable selection of tablets

Scale
IT that just works

Inspiring digital content

Teamwork

Empowerment
Tools that empower teachers
## Pick the tablet that’s right for your class

<table>
<thead>
<tr>
<th>Tablet</th>
<th>Features</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nexus 7</strong></td>
<td>- Light and portable 7” tablet</td>
<td>$259</td>
</tr>
<tr>
<td></td>
<td>- Super high resolution screen</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 2GB of RAM for smooth performance</td>
<td></td>
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<tr>
<td><strong>ASUS Transformer Pad</strong></td>
<td>- 10.1” tablet with optional keyboard / trackpad</td>
<td>$299</td>
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<tr>
<td></td>
<td>- 1 year accidental damage protection to guard against the unexpected</td>
<td></td>
</tr>
<tr>
<td><strong>Samsung Galaxy Tab 4 Education</strong></td>
<td>- 10.1” HD tablet</td>
<td>$399</td>
</tr>
<tr>
<td></td>
<td>- Multi-window functionality makes it easy to multi-task</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Protective case and Corning Gorilla Glass included</td>
<td></td>
</tr>
<tr>
<td><strong>HP Slate 8 Pro</strong></td>
<td>- Versatile 8” tablet</td>
<td>$329</td>
</tr>
<tr>
<td></td>
<td>- Battery lasts up to 11.5 hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Corning Gorilla Glass Screen for increased durability</td>
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</tbody>
</table>
Set up personalized access for up to 5 students*

- Explore the full potential of tablets in the classroom *before* deciding to invest in 1:1

- Use the same tablets across multiple classes, adding up to 5 unique student accounts to a single device

- Each student gets personalized access to their Google Apps, Docs, and the content shared with them through Google Play for Education.

*Nexus 7 tablets only for now, support for other devices coming soon*
Go easy on the IT department with simpler set-up and management

Set up a classroom in minutes
It’s easy to find the right material for any lesson

Teachers can browse by...

- All Topics/Grade Levels
- All Types
- Free and Paid
- All Intended Uses
- All Common Core Standards
- Subject and grade
- Classroom activity
- Educational standard
Teachers have the flexibility to differentiate

- Julie
- Lisa
- Scott
- Laura
- Rick
- Tia
- Jaime
- Shazia
- Will
- Pat
- Emily
- Ian
- Lucia
- Bram
- Megan
- Ashwin

- Space cadets
- Animal lovers
- Major generals
- Budding artists
Get creative with any assignment

**WeVideo**
Help students demonstrate ideas through video, an essential skill for 21st century communication

**Book Creator**
Turn students into authors as they create their rich media books on any topic

**Sketchbook Express**
Whether it’s for doodling or professional illustration, transform any tablet into digital canvas

**Explain Everything**
Encourage students to express themselves in new ways as they create presentations featuring audio, video, photos and weblinks
Give students new ways to participate

**Socrative**
Create quizzes, polls, and exit tickets, then view student results in real time.

**Nearpod**
Share interactive presentations with students and facilitate peer learning.

**Class Dojo**
Improve classroom behavior quickly and easily by giving instant feedback.

**Quizlet**
Create and share flashcards students can use to practice anywhere.
And build skills with apps that adapt to student needs and interests

**Booksy**
Help beginning readers build skills and confidence with interactive, leveled books

**Math Workout Pro**
Enhance mental arithmetic through fun games and daily practice

**BrainPop**
Watch a different animated movie every day, then test your knowledge with an interactive quiz

**Dragonbox Algebra**
Anyone can learn the basics of algebra at their own pace.
Affordable book rentals let teachers customize any curriculum

Find books on Google Play for Education

Students can start reading from tablets or Chromebooks

And continue from any web browser

Publishers include:

Houghton Mifflin Harcourt

HarperCollins Publishers

ABDO

A Family of Educational Publishers

Lerner

Penguin Random House

Andrews McMeel Publishing

Cengage Learning
A school-friendly, focused way to share YouTube videos
Easy-to-use tools keep workflow simple

- Purchase via PO
- Reassign apps when a student no longer needs them
- Uninstall apps to keep student devices up-to-date
- Easily share licenses with other teachers

<table>
<thead>
<tr>
<th>BOOK</th>
<th>COPIES</th>
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<tr>
<td>CK-12 Middle School Math Grade 6, Volume 2...</td>
<td>31</td>
<td>30</td>
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<td>CK-12 Foundation</td>
<td>Rent more</td>
<td>Assign</td>
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<tr>
<td>Multiplication, Grade 4</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Spectrum</td>
<td>Rent more</td>
<td>Assign</td>
</tr>
<tr>
<td>The Secret Garden 100th Anniversary</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Frances Hodgson Burnett</td>
<td>Rent more</td>
<td>Assign</td>
</tr>
<tr>
<td>Black Beauty</td>
<td>6</td>
<td>5</td>
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</table>
Tools for moments like these

Choice
Affordable tablets

Scale
IT that just works

The right content

Teamwork

Empowerment
Empowered teachers
Introductions and Contact Information

Kiara, Sebastian, Maya, Colin, and Ethan

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Each learning community (PreK-8) is responsible for one or more stewardship projects.

Each project impacts a larger community and provides an opportunity for students to practice being stewards and active citizens in their community.

Stewardship at St. Albans City School website
High alert – Large amounts of blue-green algae were observed during our visit. Dense scums or highly colored waters were present. The water is not safe for recreational use in this area. Please see Department of Health information about beach closings and hazardous areas. No toxin testing was conducted.

Status based on visual assessment only.

Monitoring Type:
Visual Monitoring System

Total phosphorus in Lake Champlain
1992 - 2013

Vermont Blue Green Algae Tracker

The Background

Our first experiences with Nexus 7 tablets and the MyTracks app

Class trip to Cady Hill Forest used MyTracks

Worked with trail development experts from Sinuosity

Showed our community types of erosion
Community trip to Hard’ack/Aldis Hill

Measured, identified, and documented erosion at Hard’ack/Aldis Hill
Community Resources

Bill Valliere
Presented his work from the Rubenstein School of Environment and Natural Resources. We hope to use this information to build a survey for the Hardack Project.

Jaime Casap
Google Education Evangelist

Google Hangout w/ Devin Sandoz

Denise Smith
Hard'ack/Aldis Hill Recreational Trail Project

Introduction
Tech

Google Drive
Used to communicate
Could talk if we needed help.
Could give each other pics
T ook notes on teachings

Google Forms
Survey

Google Play for Education
Researching and installing apps takes minutes, giving teachers time to work on the rest of the project

MyTracks
Can take pictures
Maps where you go
Could write notes on pics
Transfers to Google Earth

Nexus 7 tablets
Piloted with Google
Used MyTracks and the built-in GPS to help with mapping

Platform

Devices

Content
Trails

We will be improving the trail system
- Groomed cross-country ski trails
- Freeride trails
- New beginner, intermediate, and advanced biking and hiking trails
- New ‘hike-only’ trails
- Closing some trails
Erosion at Hard’ack

Erosion has made the trails dangerous and not as enjoyable
Brings minerals into the lake that fuel algae blooms
A more well-designed trail system will filter the water and limit erosion from water running down Hard’ack
Tread erosion is one of the types of erosion at Hard’ack. It happens when a flat area gets wet and boggy and people walk through it. It creates a sort of pit that gets deeper and deeper as more people walk through it.
Trail Widening

Trail widening has the same source as tread erosion. Flat parts of the trail collect water, but instead of people walking through it, they walk around it. This takes away natural habitat and the trail continues to widen because the boggy area increases in size the more the trail widens.
Weathering

Weathering is a natural form of erosion. When running water runs along surfaces, it removes loose sediment. It can expose bedrock and make trails unenjoyable and potentially dangerous. We can limit it by having more well-designed trail system that makes water go through a stable area, rather than stay on open trails.
Lake Champlain

- Flows down the trails unfiltered because of the design of the trail
- Runoff contains phosphorus
- Goes into storm drains, leads into lake
- Phosphorus promotes too much plant and algae growth
- Algae produces toxins
St. Albans Bay

The End of the Beginning - The Hard Work Pays Off

Learning  Engagement  Impact
Next Steps for the Recreation Reserve Project

Preparing New Students

e-Cybermission

Grants

Getting onto the Trails

Playing in a Clean Lake and on Sustainable Trails

Learning  Engagement  Impact