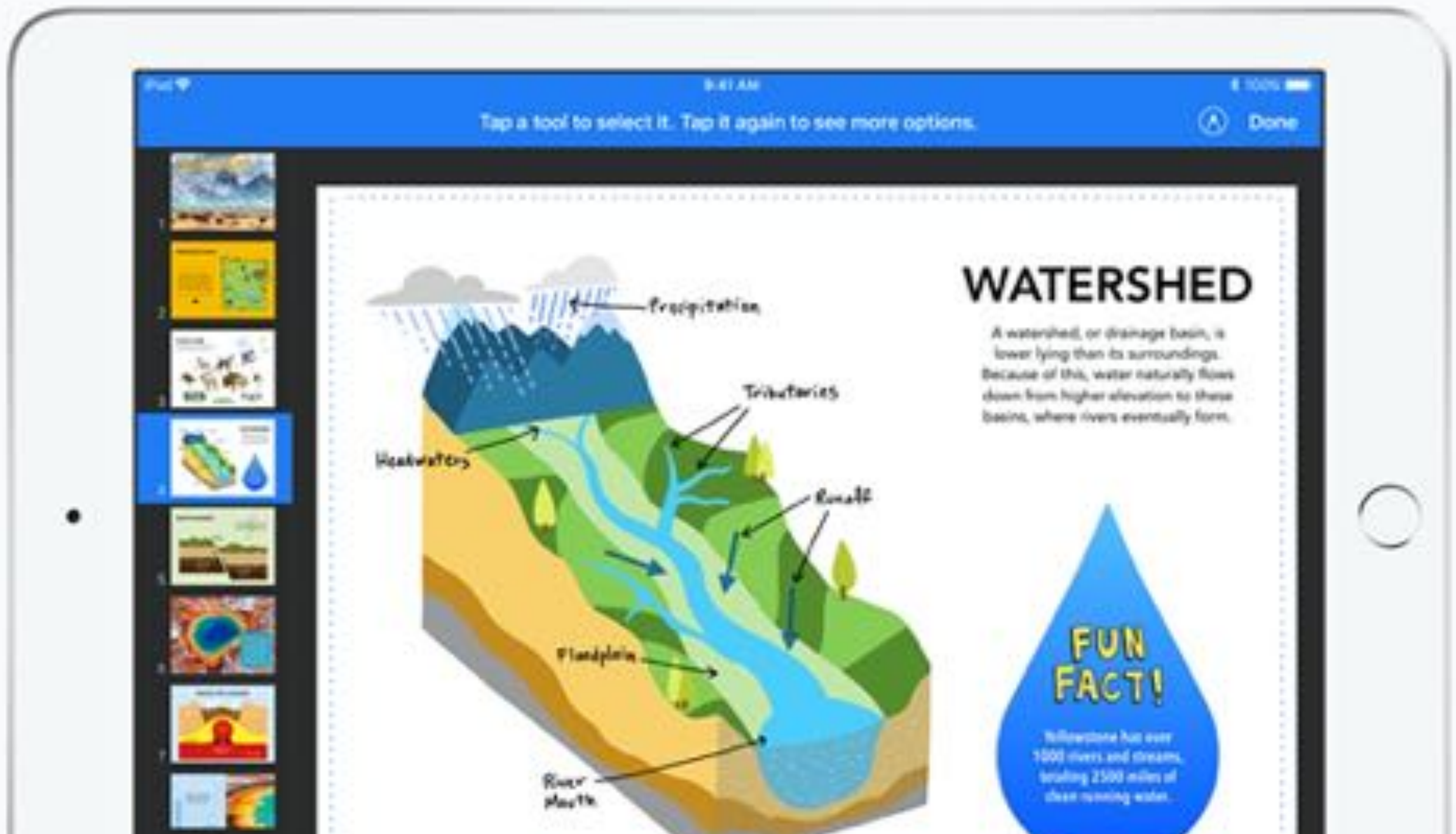


HORIZON CHRISTIAN SCHOOL

TECHNOLOGY TRAINING



PLEASE NOTE:

- This document is an overview of materials designed and presented over an eight month period.
- Sessions were held once a month, during a half-day inservice.



GETTING TO KNOW YOUR IPAD

BACK TO SCHOOL WEEK

SETTING UP NEW IPADS

- Teachers gathered to learn the basic functions of their new iPads.
- Teachers set the new iPads up properly with school email and apps
- Teachers learned basic operation of using iPadOS

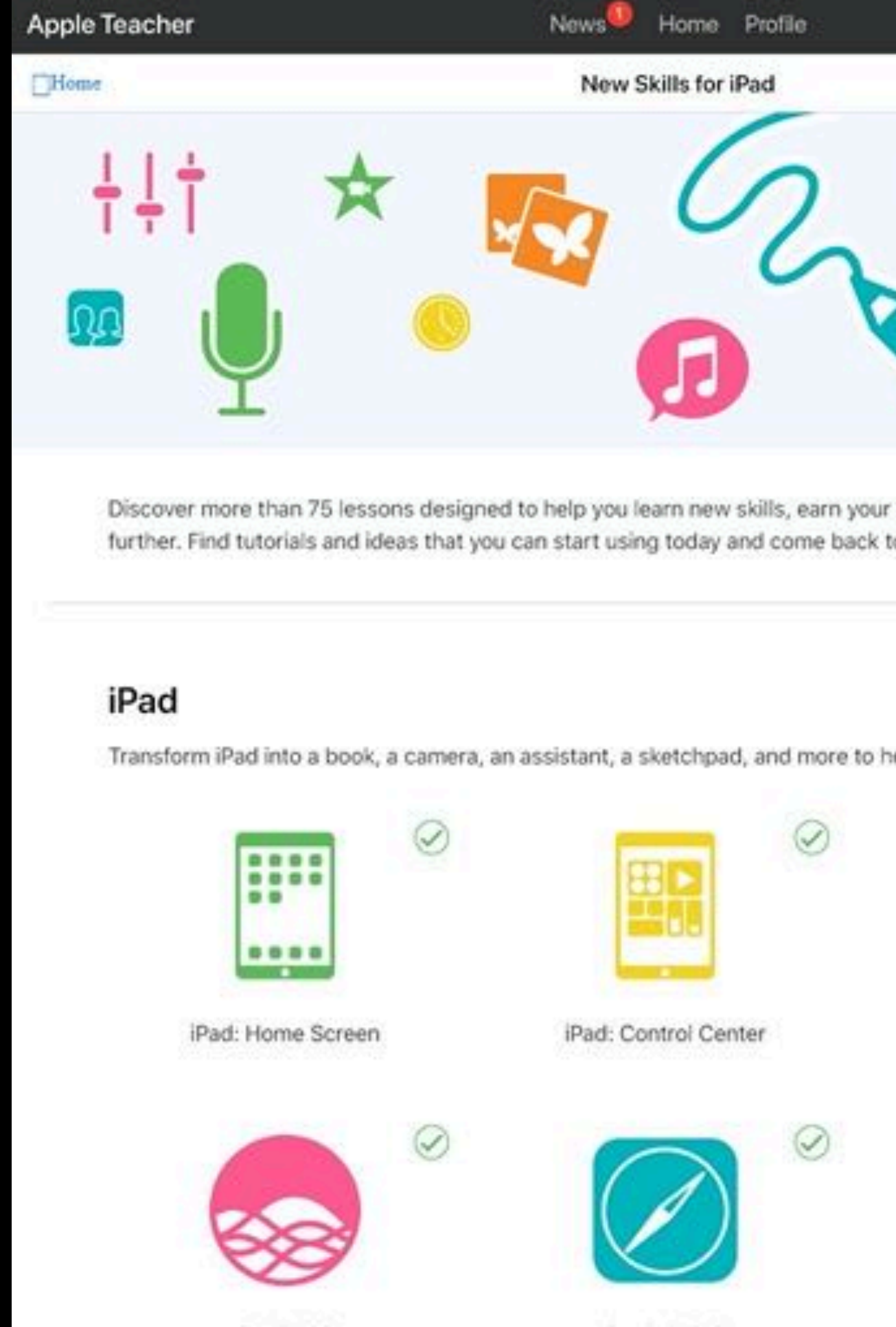


GOING FURTHER WITH YOUR IPAD

APPLE TEACHER CERTIFICATION

APPLE TEACHER

- Instructional Problem: Teachers may not know how to use iPads
- Learning Objective: Teachers will complete the steps to obtain "Apple Teacher Certification"
- Learning context: By making this a group activity, teachers were able to work together toward goals, keeping enthusiasm levels high.



TECH QUICKIE! (A VIDEO TUTORIAL)

CONVERTING A DOCUMENT TO PDF USING AN IPAD



USING ONEDRIVE, ONENOTE, AND TEAMS

MASTERING OFFICE 365

Technology Teacher Training, Jan. 2020

Today's Schedule

	Secondary	Primary
12:45	Gather, Orientation RM156	
1:00	OneNote Deep Dive RM156	App Scavenger Hunt RM154
3:00	Group Presentations RM156	

Prolegomena:

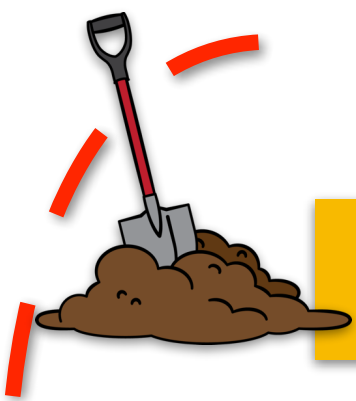
- WiFi Upgrade update, Other infrastructure news.
- OneNote Class Notebook Trial (secondary finals)
- Policy Notes, iPad Difficulties and Ideas page.



Elementary Teacher's Activity:

App Scavenger Hunt

Horizon Tech Inservice | Jan 30, 2020



Start: Divide into three groups

Go App Hunting!

Hint: Check out these websites:

common sense education®

education world®
Connecting educators to what works

edutopia

Double Hint: Check out the Education Category in the App Store!

For each of the subjects your group teaches, find an app you can imagine using. You may download several apps along the way that you end up deleting, but that's part of the scavenging!

Watch Out!
For demos of STEM toys and tools.

Today is a day to play. Explore, tinker, experiment. Our teaching schedule is rigorous and doesn't leave much time to ideation. So imagine with me, if you will, that you have a cart full of iPads, one for each student. They are charged. They each have a keyboard, a kid-resistant case, a pencil for writing or drawing digitally, and a camera that can make pretty good pictures or even video. And they all work. We're well on our way to actualizing this dream. In this for-now-a-dream (but soon a reality), you will be able to monitor each student's screen from your own iPad, or open the same resource on all of your student's iPad with a couple taps. A cart full of iPads won't do much good if we don't know what to do with them.

Not we, you. You are the teacher in your classroom, the grade-level expert. You know what concepts, knowledge, and skills your kiddos need to know. You know what sorts of things they talk about on recess and at lunch, what fascinates them. You know to what extent they work together, and what sorts of projects excite them.

There is a world of applications and websites that are designed for your grade-level, for each of the subjects you teach. Many are free, many others are inexpensive.

Today let's do some exploring.

Apps For Students		
Subject	App Name	1-5 Rating
Math		
Social Studies		
Bible		
Reading		
Writing		
Bible		
Science		
...		

Dont Forget Apps for Teacher!
Whiteboard Apps, Communication Apps, Planning Apps

Press both the top and home button to screenshot.



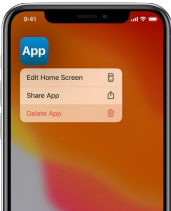
Use Key Note to capture your observations on the apps you find. Don't forget to include a screenshot of the app in action!



Finished! Use the Apple TV to share your apps with the other groups.



Need to delete an app? No Problem!
Long press on the app icon until a menu appears



Secondary Teacher's Activity:

Tasks

Organizational Scheme for OneNote Notebooks

Class Notebook from Start to Finish, Teams Integration

Assignment Creation, Distribution, Collection, and Grading

Begin Migrating Personal Files to Notebooks.

The screenshot displays the Microsoft OneNote application interface. The top ribbon shows tabs for Home, Insert, Draw, View, and Class Notebook. The Class Notebook tab is active, showing a notebook titled 'Technology Teacher Training 2019-2020 Notebook'. The sidebar on the left lists various sections and pages, including 'Inservice Sessions', 'Collaboration Space', 'Using the Collabor...', 'iPad Problems an...', 'Office 365 Proble...', 'Classroom Manag...', 'Secondary Specifi...', 'Primary Specific Is...', '_Content Library', 'Using the Content...', 'iPad and Apple Te...', 'Microsoft 365', 'Curriculum Planning', 'Classroom Manag...', 'Polar Ice Cap PBL', and '_Teacher Only'. The main content area shows a list of tasks for secondary teachers, including 'Organize Personal Curriculum Notebooks', 'Create New Class notebook, populate with students', 'Copy Curriculum from personal notebooks to class notebook', and 'Create assignments, grade'. The right-hand pane shows a list of tasks for elementary teachers, including 'Explore some Apps for Teaching: ExplainEdu', 'Explore some Apps', 'STEM', 'Math', 'Science: Sphero', 'Programming: ScratchJr', 'LEGO WeDo', 'Reading / Handwriting', 'Digital Storytelling', 'Story boarding', 'Reading: Libravox', 'Bible', 'Bible App for Kids: <https://apps.apple.com/us/app/bible-app-for-kids/id6688692393>', and 'Media: Garageband, iMovie'.

Notes:

Due: 1/30/20

Goals:

Secondary:

- Organize Personal Curriculum Notebooks
- Create New Class notebook, populate with students
 - Option to attach Team to notebook
- Copy Curriculum from personal notebooks to class notebook
- Create assignments, grade.

Elementary:

Explore some Apps for Teaching: ExplainEdu

- Explore some Apps
 - STEM:
 - Math:
 - Science: Sphero,
 - Programming: ScratchJr
 - LEGO WeDo
 - Reading / Handwriting
 - Digital Storytelling
 - Story boarding
 - Reading: Libravox
 - Bible:
 - Bible App for Kids: <https://apps.apple.com/us/app/bible-app-for-kids/id6688692393>
 - Media:
 - Garageband
 - iMovie

COLLABORATIVE LEARNING WITH TECHNOLOGY

PROJECT BASED LEARNING

October Inservice



Inspirational, Isn't it?

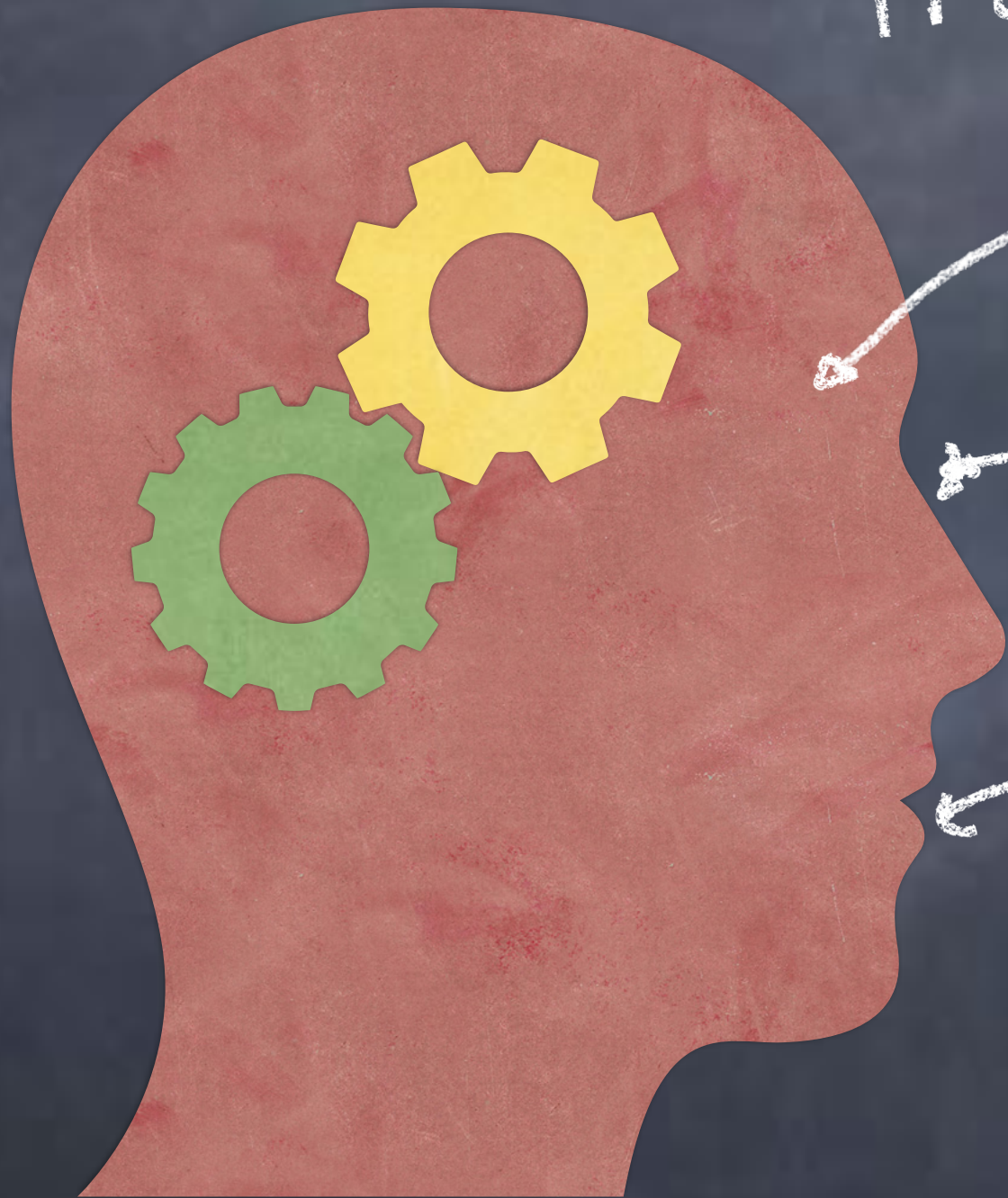
What if.....

Inspirational, Isn't it?

We did that?

Project-Based Learning vs. Doing Projects

Doing Projects	Project-Based Learning
Model and assignment based	Problem and opportunity based
About the product	About the process
Occur after the "real learning"	Real learning occurs through the project
Can be done alone	Requires collaboration and teacher guidance
All projects have the same goal	Students make choices that determine the outcome



Project-based Learning

Brain-based

Visual

Social,

Collaborative

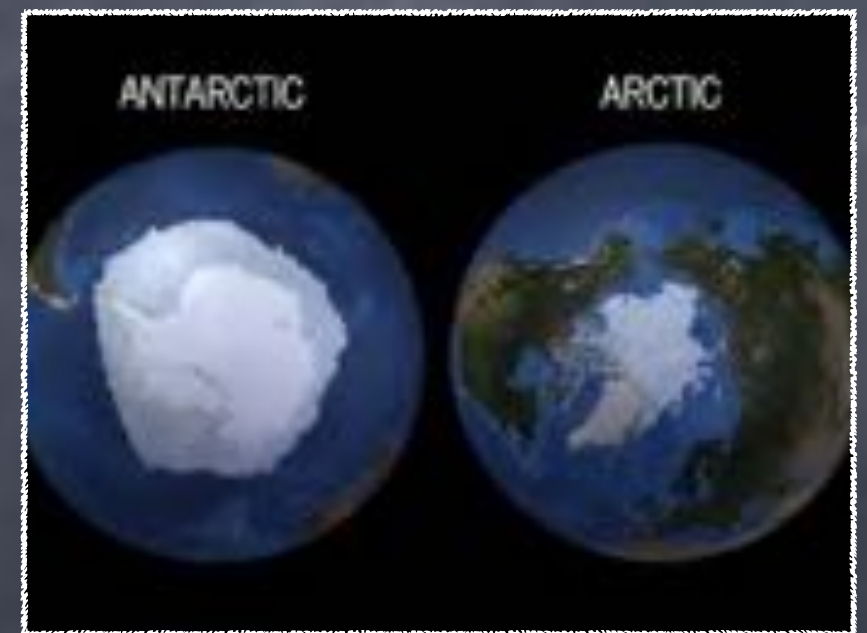
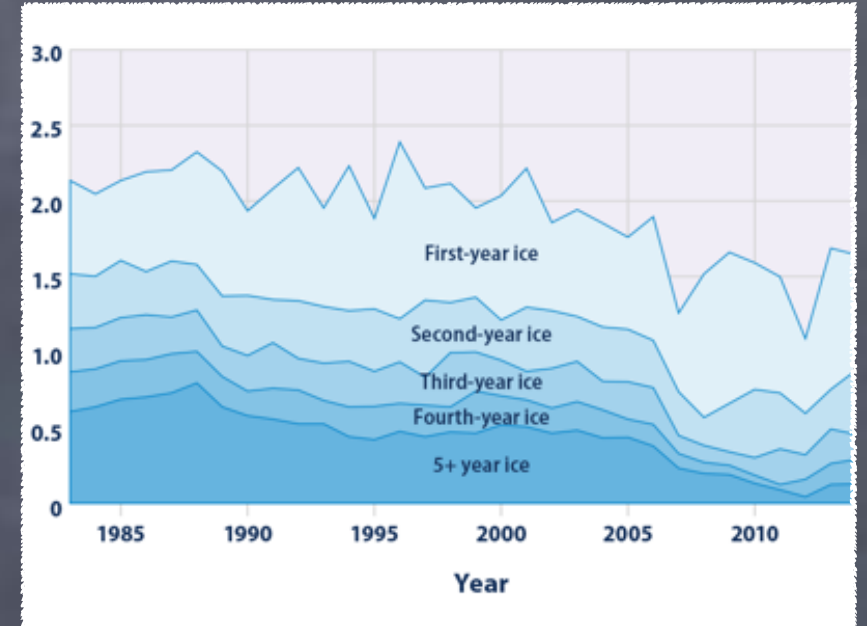
"We find it helpful to distinguish a
"dessert project" - a short,
intellectually-light project served up
after the teacher covers the content of
a unit in the usual way - from a
"main course" project, in which the
project is the unit. In Project Based
Learning, the project is the vehicle for
teaching the important knowledge and
skills student need to learn. The
project contains and frames
curriculum and instruction."

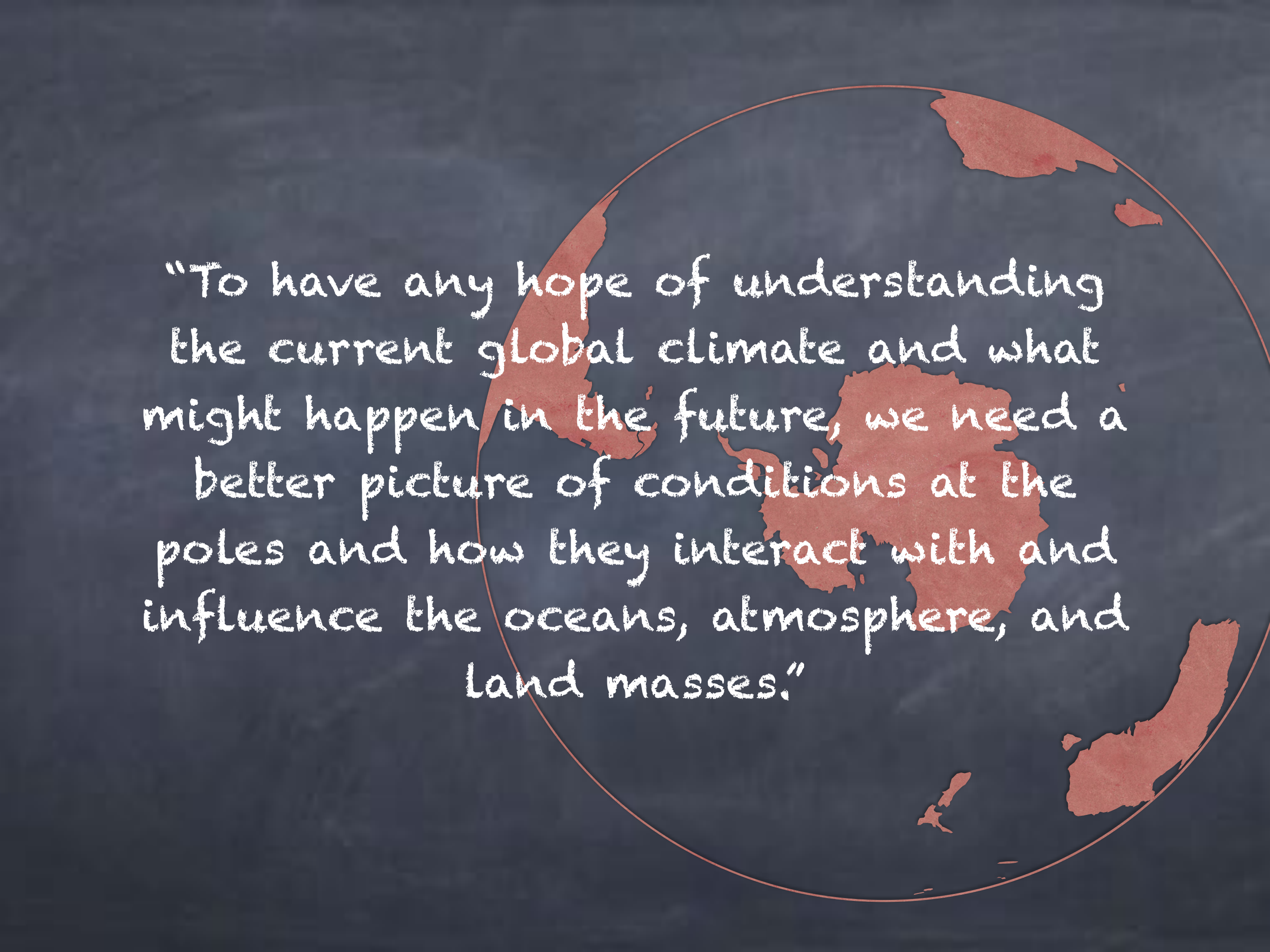


2020 Horizon Polar Summit

Changing Polar
Regions







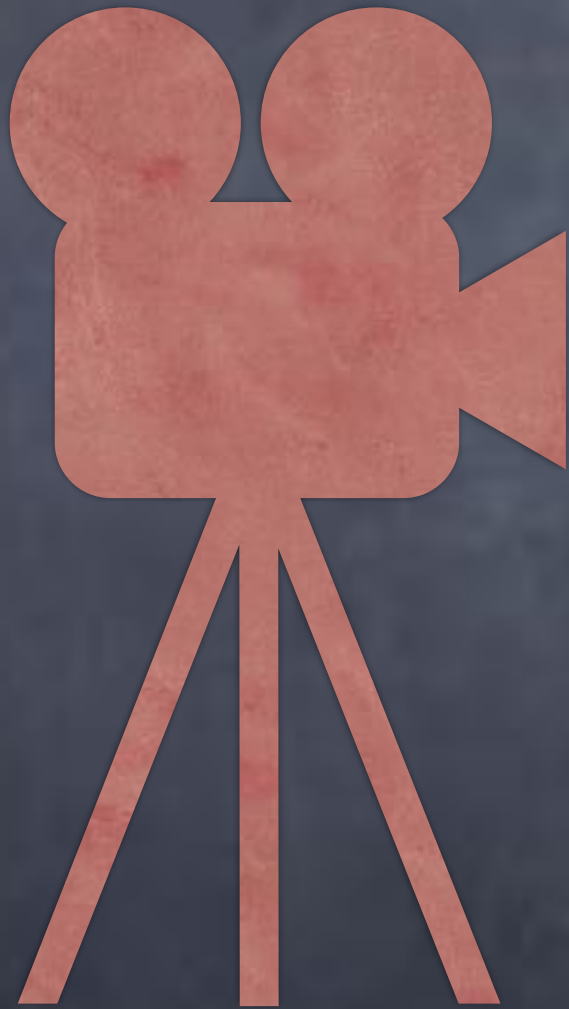
"To have any hope of understanding the current global climate and what might happen in the future, we need a better picture of conditions at the poles and how they interact with and influence the oceans, atmosphere, and land masses."

The Prompt:

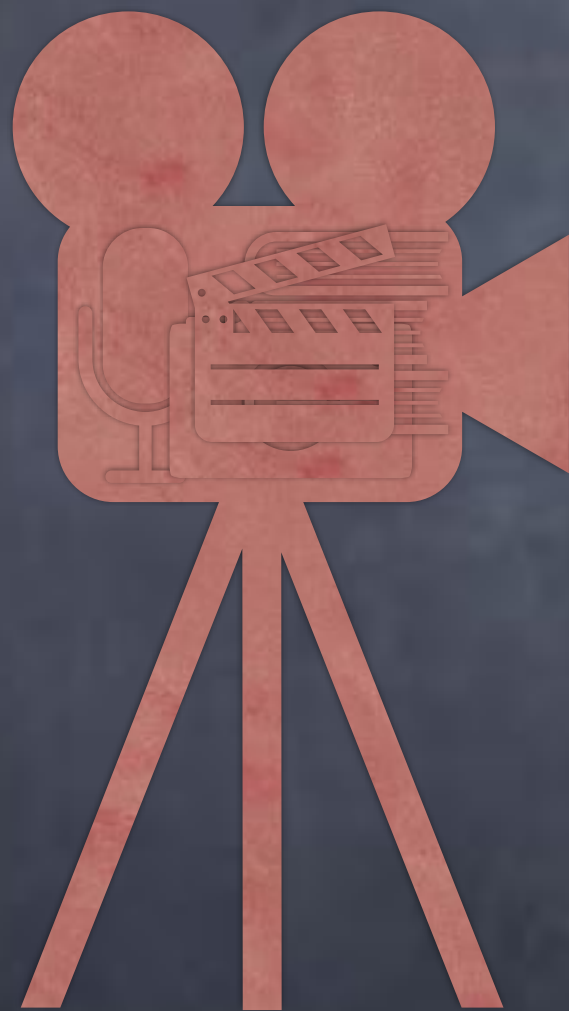
Determine whether the benefits outweigh the drawbacks of establishing large, stable, international research stations at the poles to better understand our changing planet in order for life to adapt to the future.

Guidelines

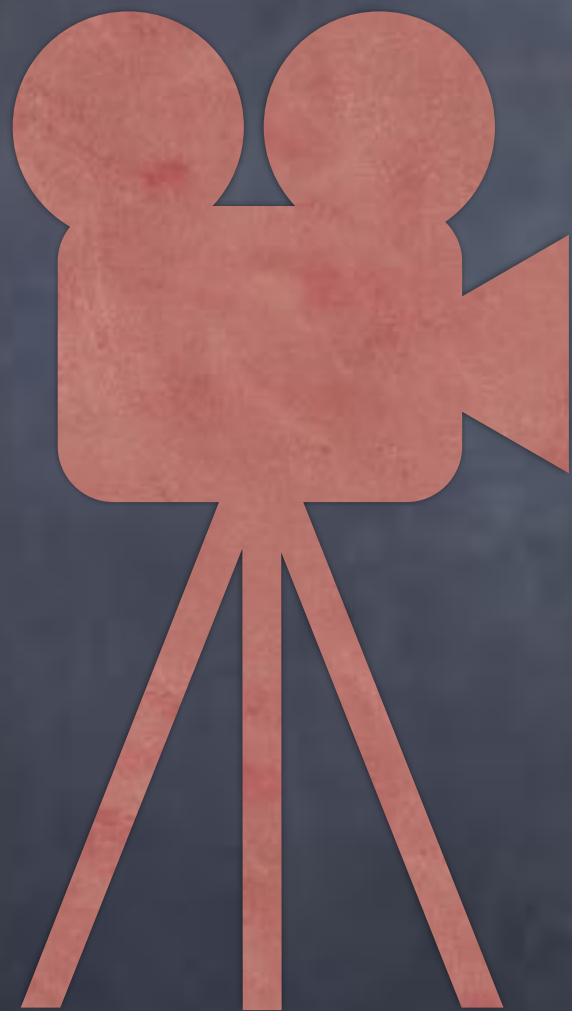
Presentations
Should have:



Guidelines



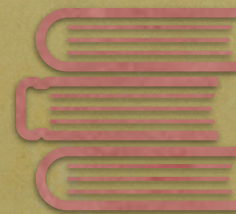
Guidelines



video



pictures

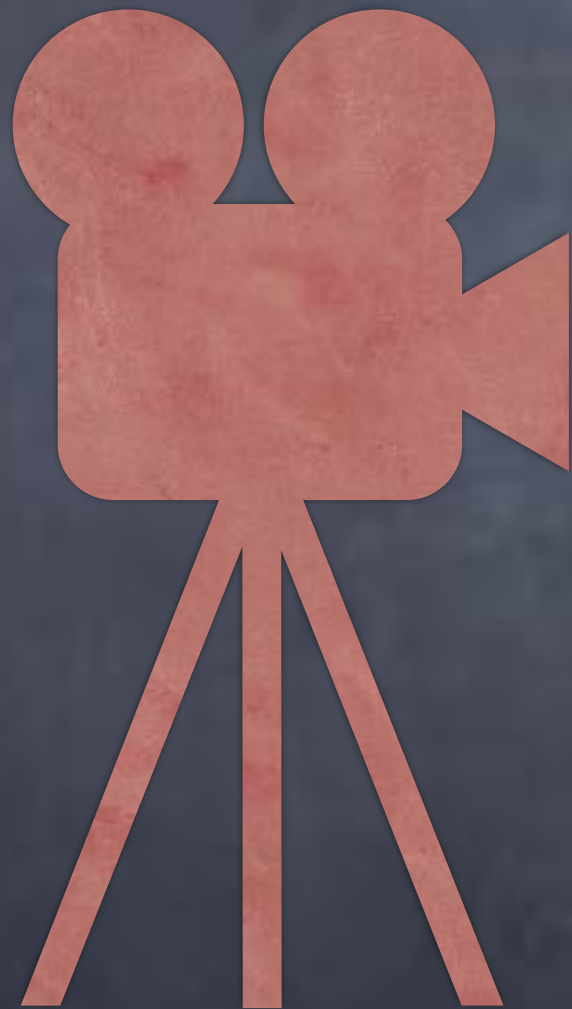


text



audio

Guidelines



**Pro
Tip!**

Create a
shared
workspace in
OneNote to
collaborate

MORE PROJECT BASED LEARNING

DIGITAL STORYTELLING TOOLS AND TECHNIQUES

IPAD INSERVICE

FEBRUARY 2020



N

SECONDARY

NOMENCLATURE

FEBRUARY 2020

SECONDARY AGENDA

- ▶ Goal 1: Organization for secondary notebooks and groups.
 - ▶ Nomenclature expectations
 - ▶ Decide on Perpetual groups
 - ▶ Teams vs. OneNote only groups
- ▶ Goal 2: Deeper understanding of Office Concepts
 - ▶ Office Groups





ELEMENTARY

DIGITAL

FEBRUARY 2020

ELEMENTARY AGENDA

- ▶ Digital Skills:
 - ▶ Use keynote to make motion graphics
 - ▶ Image masks, Instant alpha, animate transitions, alpha Channel
 - ▶ Use iMovie to make a movie
 - ▶ Green screen, transitions, overlays, non-linear editing
 - ▶ App smashing, handing files from one app to another
- ▶ Story-telling Skills
 - ▶ Outlining :: Storyboarding
 - ▶ Plot, Pacing, Setting, etc.



FEBRUARY 2020

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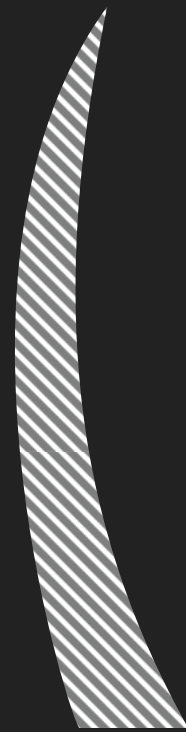
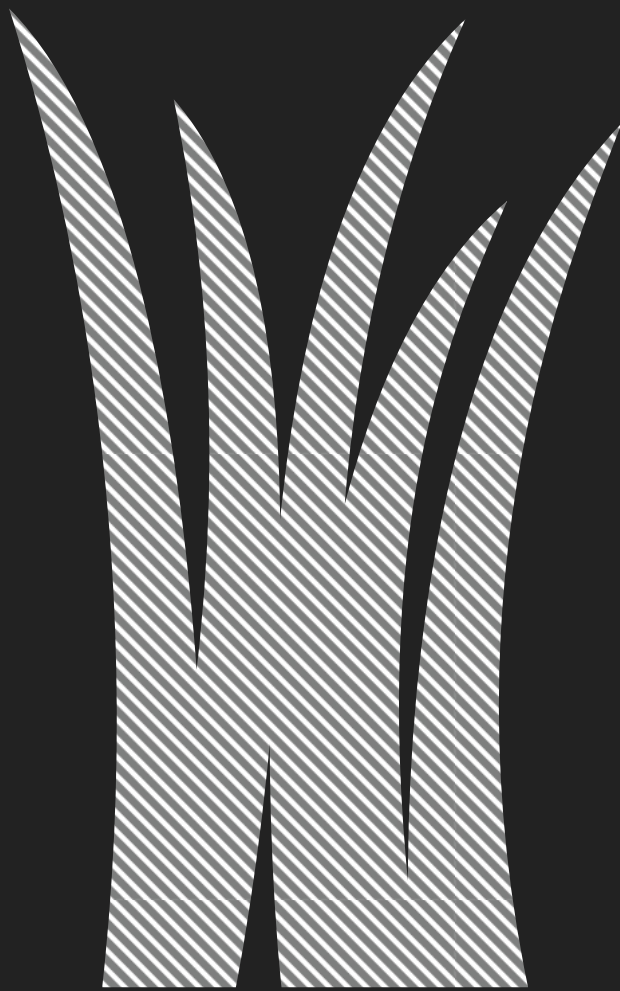


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STEM TOOLS AND CONCEPTS

CURRICULUM PLANNING FOR COLLABORATION

BOARD PRESENTATION OUTLINING IPAD 1:1 PROGRAM

APPENDIX

HORIZON CHRISTIAN SCHOOL IPAD PROGRAM

OVERVIEW

LATE WINTER, 2020

- The Whys
- Timeline so Far
- Pieces in Play
- User Experience from Various Perspectives
- Next Steps, as I See Them



THE WHYS
WHY
MORE
TECHNOLOGY?



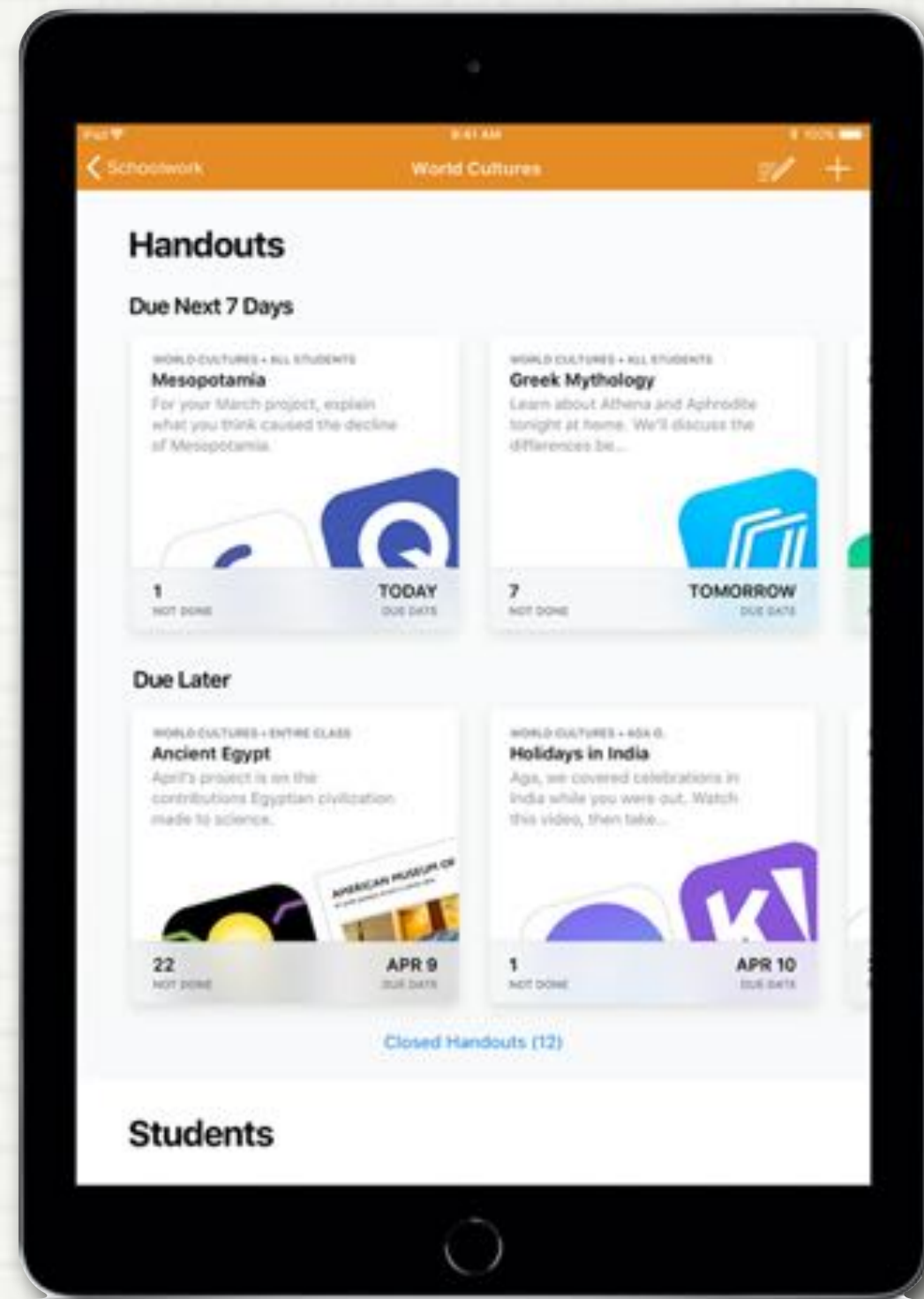
TECHNOLOGY EXPECTATIONS

AIDING STUDENT LEARNING WITHOUT GETTING IN THE WAY

- Horizon needs to be able to manage devices
- Students need to be able to collaborate
- Teachers need access to a robust LMS
- Devices need to be affordable and durable
- Ready access to robust application ecosystem
- Accepts pencil input for handwriting and drawing capabilities



THE WHYS WHY IPADS?



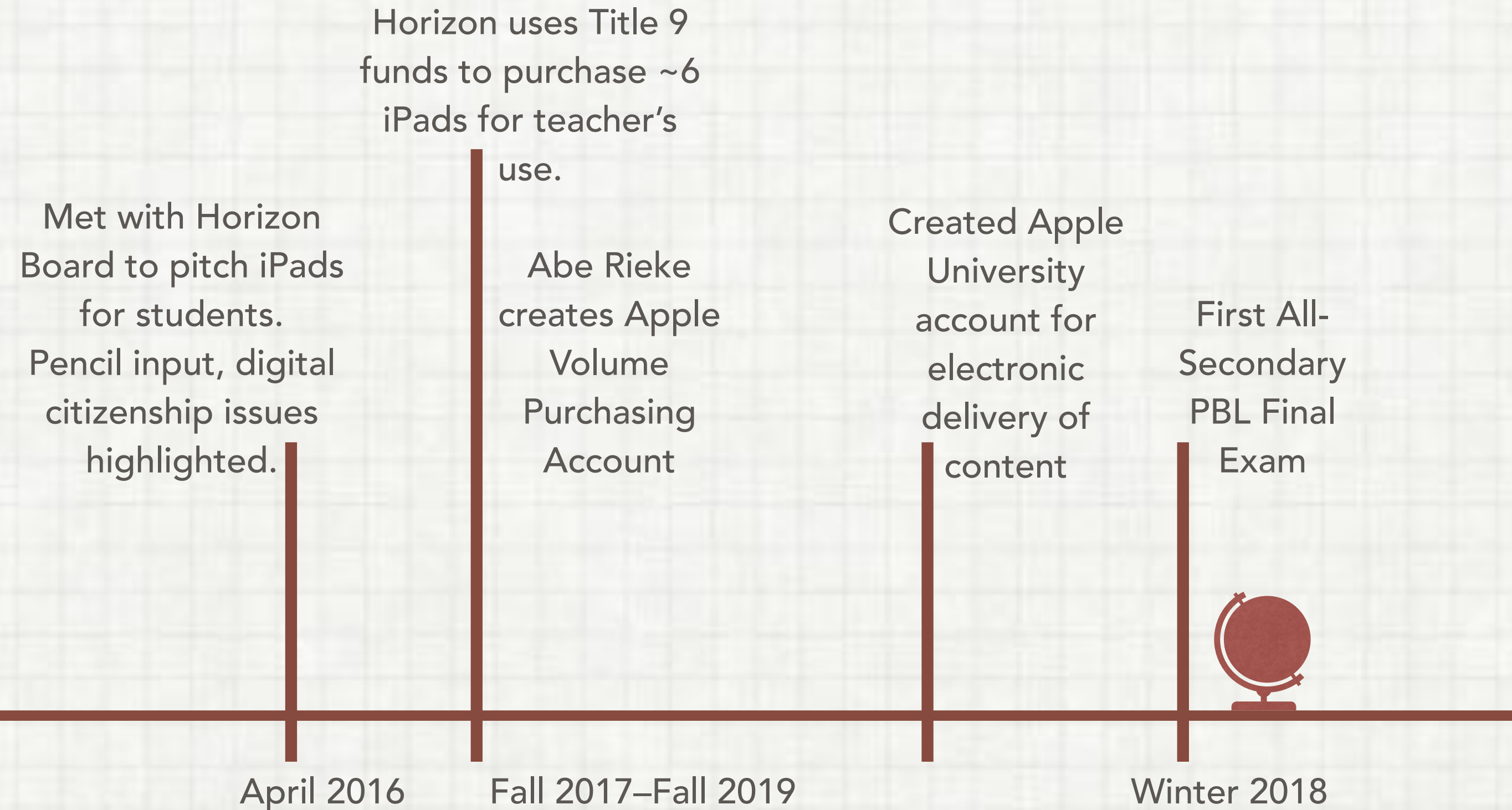
AVAILABLE OPTIONS

	Costs/year (4 year lifecycle)	Office Software	Input Methods	MDM	Classroom Management Tools	EDU App ecosystem
Chrome books	\$85	MS365 (browser), Google Apps	Keyboard, Touchscreen	Yes (google)	Yes (3rd Party, e.g. Securely)	Yes
MS Surface	\$318	MS365, Google Apps	Keyboard, Touchscreen, Pencil	Yes (InTune)	Yes (3rd Party, e.g. Faronics	Moderate
Mac Laptops	\$249	MS365, Google Apps, Apple Apps	Keyboard	Yes (ASM + 3rd Party)	Apple Classroom	Moderate
iPads	\$125	MS365, Google Apps, Apple Apps	Keyboard, Touchscreen, Pencil	Yes (ASM + 3rd Party)	Apple Classroom	Yes

WHY IPADS?

- Teachers and Administrators have clearly emphasized the value of Handwriting for Learning.
 - iPads and Microsoft Surface Devices excel at these.
- We use MS365 for email, groups, and storage.
 - Microsoft has strong integration of Apple Pencil input throughout its iPad apps.
 - Gradelink syncs with both Microsoft School Data Sync and Apple School manager.
- iPads offer a single device that grows with students from kindergarten through high school.
 - Strong education app ecosystem that integrates into classroom management functions.

THE TIMELINE, SO FAR



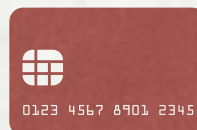


Research iPads in School in conjunction with MDM, SIS, etc. Complete Apple Teacher training, receive Certification

Winter 2019

Homeschool Program Begins Exploring Google Classroom to maintain momentum for off campus students

Secondary All School PBL: Consumerism



Receive \$10k Grant, develop plans for rolling out iPads to teachers and building infrastructure



Spring 2019

Upgrade Server,
begin syncing
Gradelink to
Microsoft School
Data Sync for
Student accounts.
Create Apple
School Manager
Account




Purchase iPad,
Keyboard, and
Pencil for Teachers



Create Office 365
Accounts for all
Secondary and
Homeschool Students



Begin
Syncing
Gradelink to
MS365 for
account,
classes

Summer 2019

Offer Lego Robotics
as a Secondary
Friday Intensive



Begin upgrade of
Wireless Network by
installing 6 additional
WAPs, 6 more
forthcoming.



First PBL Final
using OneNote
Class notebooks
for team
collaboration

Begin 4hour/month
Teacher Technology
Training on using
iPads in classroom



Fall 2019

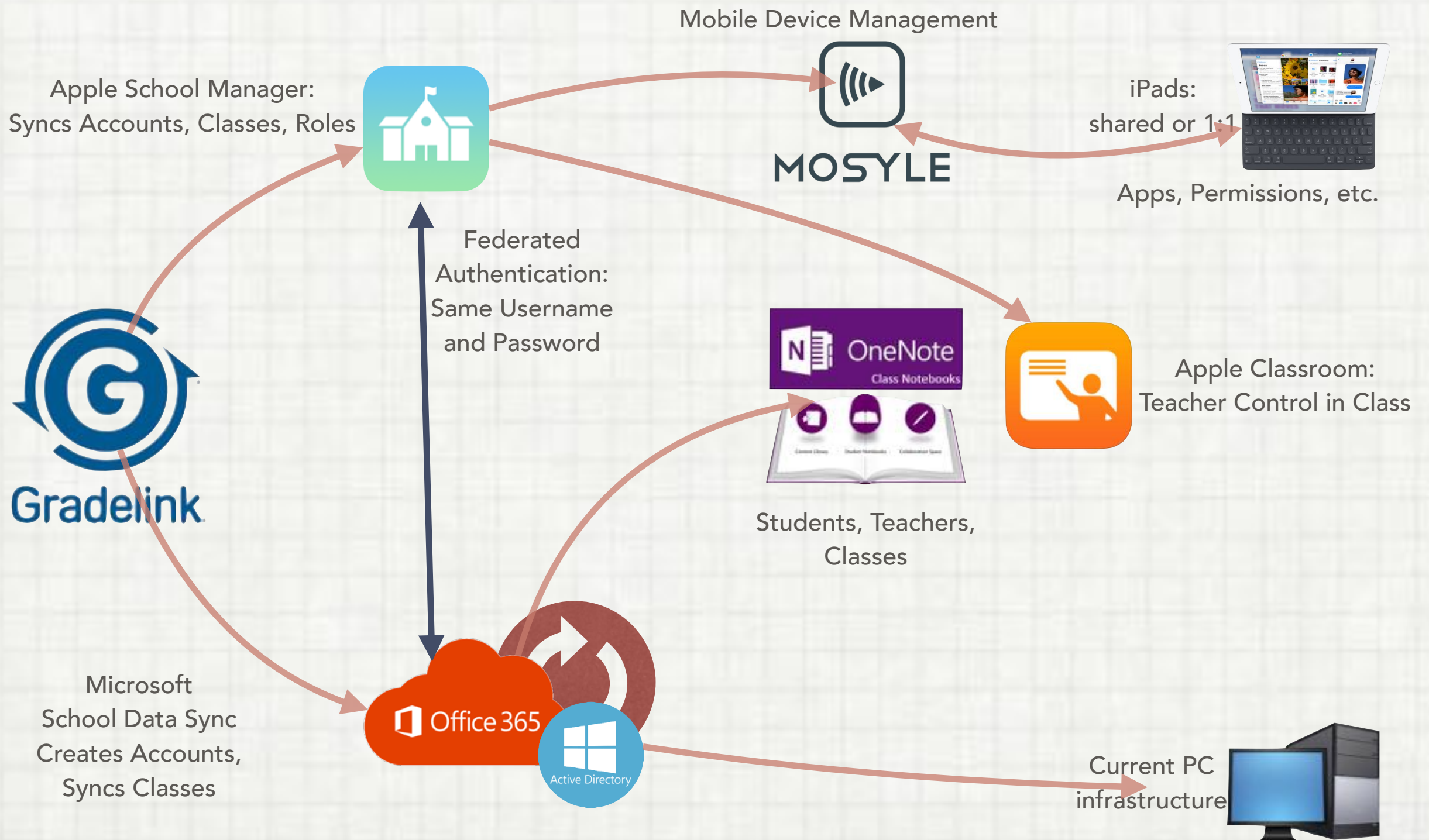
Winter 2020

FROM GRADELINK TO MANAGED DEVICES SYSTEM ARCHITECTURE



THE PIECES IN PLAY

ARCHITECTING A SYSTEM THAT'S DURABLE, SCALABLE, AND EASILY ADMINISTERED



USER EXPERIENCE FROM VARIOUS ANGLES



STUDENTS AND PARENTS

FREEDOM IN BOUNDARIES

- Single Sign on: One Username (school email) and password across all services.
- Automated connection to Horizon's Wireless Network, Web filtering follows device.
- Classes automatically loaded into Microsoft 365 (OneNote, Teams, Group Calendars, etc)
- All necessary Apps and services pre-loaded onto iPad.
- Students learn good habits, using industry standard tools (office apps, email, calendaring, task lists)

TEACHERS AND STAFF

LOW FRICTION COMMUNICATION AND FEEDBACK

- Classes and Students automatically loaded into Office365
- Class iPad usage can be managed via simple to use app.
- Applications and services (files, email, etc.) can be accessed from any device, anywhere
- All class content can be easily shared with absent students (including lecture material using MS Whiteboard)
- Observe, assess, and interact with Student class notes at any time.

ADMINISTRATIVE

LOW OVERHEAD

- User data, roles, and class lists synced from Gradelink to all ancillary services (active directory, MDM, etc).
- Zero touch deployment: Provide device and email address and password to user, everything else is automated.
- Easily add or delete applications on devices, remote management.
- Low financial maintenance: ~\$5 per device, per year, additional \$3 per teacher, per month.

AS I SEE THEM
NEXT
STEPS



NOW THROUGH JUNE

CONTINUE PREPARING

- Continue Running All-teacher Technology Training.
 - Digital citizenship, classroom management roll playing, further familiarization with the toolset.
- Continue Preparing infrastructure: 6 more WAPs, Preparing student information syncing structure.
- Begin writing policies and best practices.
- Set up ticketing system for help desk, check out system for STEM electronics and peripherals.

JUNE THROUGH AUGUST

STAGE IS SET

- Populate gradelink with Student MS365-generated emails
- Enhance utilization of MS365 resources: migrate calendaring system from gradelink, embed MS365 calendar into website, set rooms and equipment as MS365 resources, etc.
- Continue writing policies and best practices.
- Purchase iPads and equipment.
- ?Retrofit Computer Lab for Design and STEM lab purposes.

	Description	Number	Per Device	Total
1:1 iPads	32GB iPad 7	~65 (students + Loaners)	299	19435
Shared iPads	128GB iPad 7	40 (2 Carts)	399	15960
Logitech Cases	Slim Folio keyboard	105	100	10500
Logitech Pencils		105	50	5250
Admin Mac Mini	512GB SSD, 32GB RAM (self installed)	1	1399	1399
Administer's MacBook	8GB RAM, 256GB SSD.	1	1399	1399
Hardware Subtotal:				53943
Yearly Software costs				
MS365 (Teacher)	/month/teacher	15	3.25	585
Mosyle MDM	/year/device	105	5.50	577.5
MS365 (student)	0			
Total Startup Costs:				55105.5

SEPTEMBER FORWARD

STUDENT TRAINING, TEACHER SUPPORT

- Issue 9–12th grade students devices, deploy 2 iPad Carts for elementary and middle school students.
- Be positioned to support students and teachers on device use and best practices.
- First year heavy digital citizenship accross all grade levels (continued emphasis during elementary years and 7th and 9th grade year).
- Begin retrofitting current computer lab to be Design and STEM lab.

THE PIECES IN PLAY

ARCHITECTING A SYSTEM THAT'S DURABLE, SCALABLE, AND EASILY ADMINISTERED



THE PIECES IN PLAY

ARCHITECTING A SYSTEM THAT'S DURABLE, SCALABLE, AND EASILY ADMINISTERED

iPads:
shared or 1:1

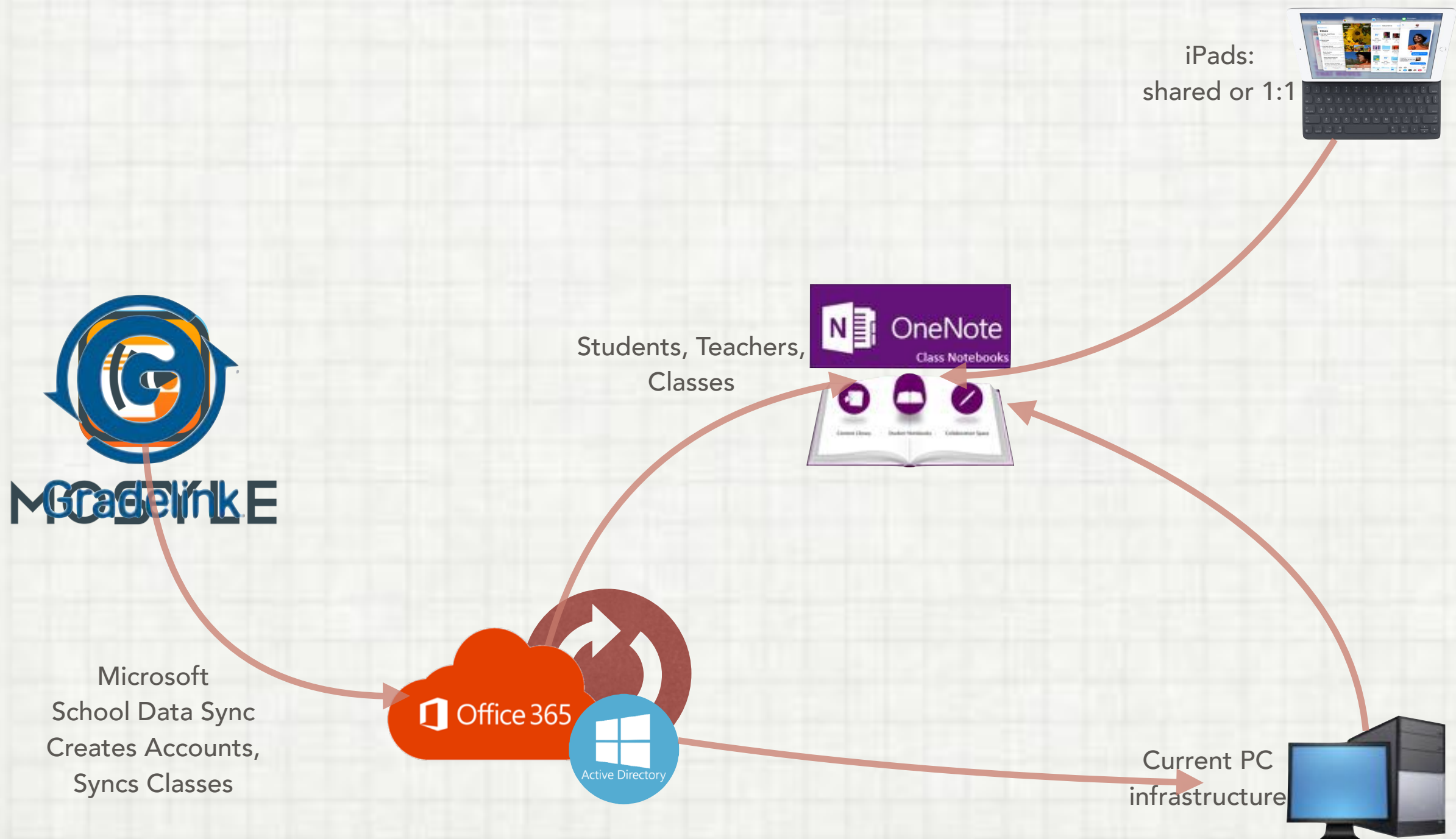


Current PC
infrastructure



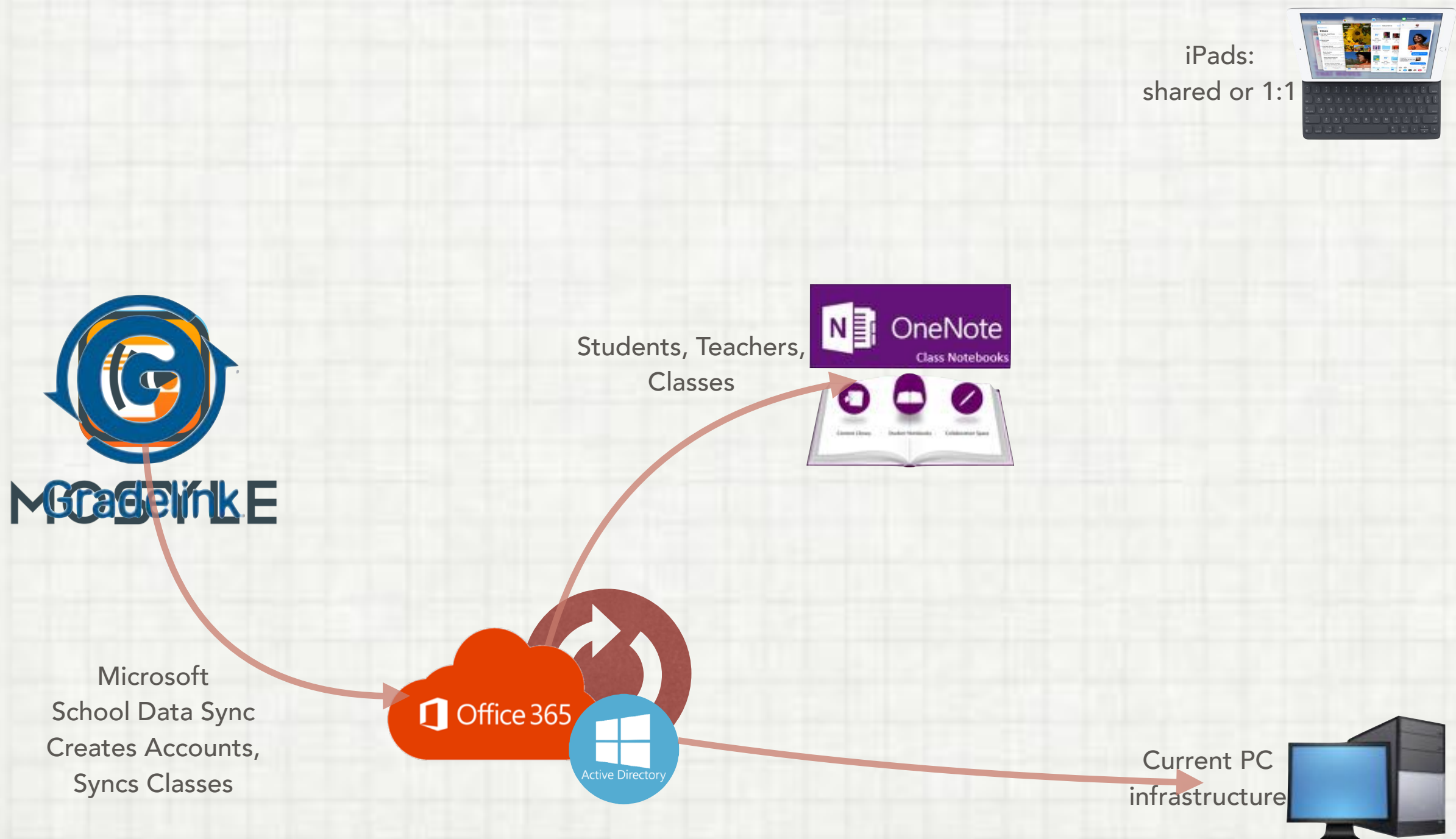
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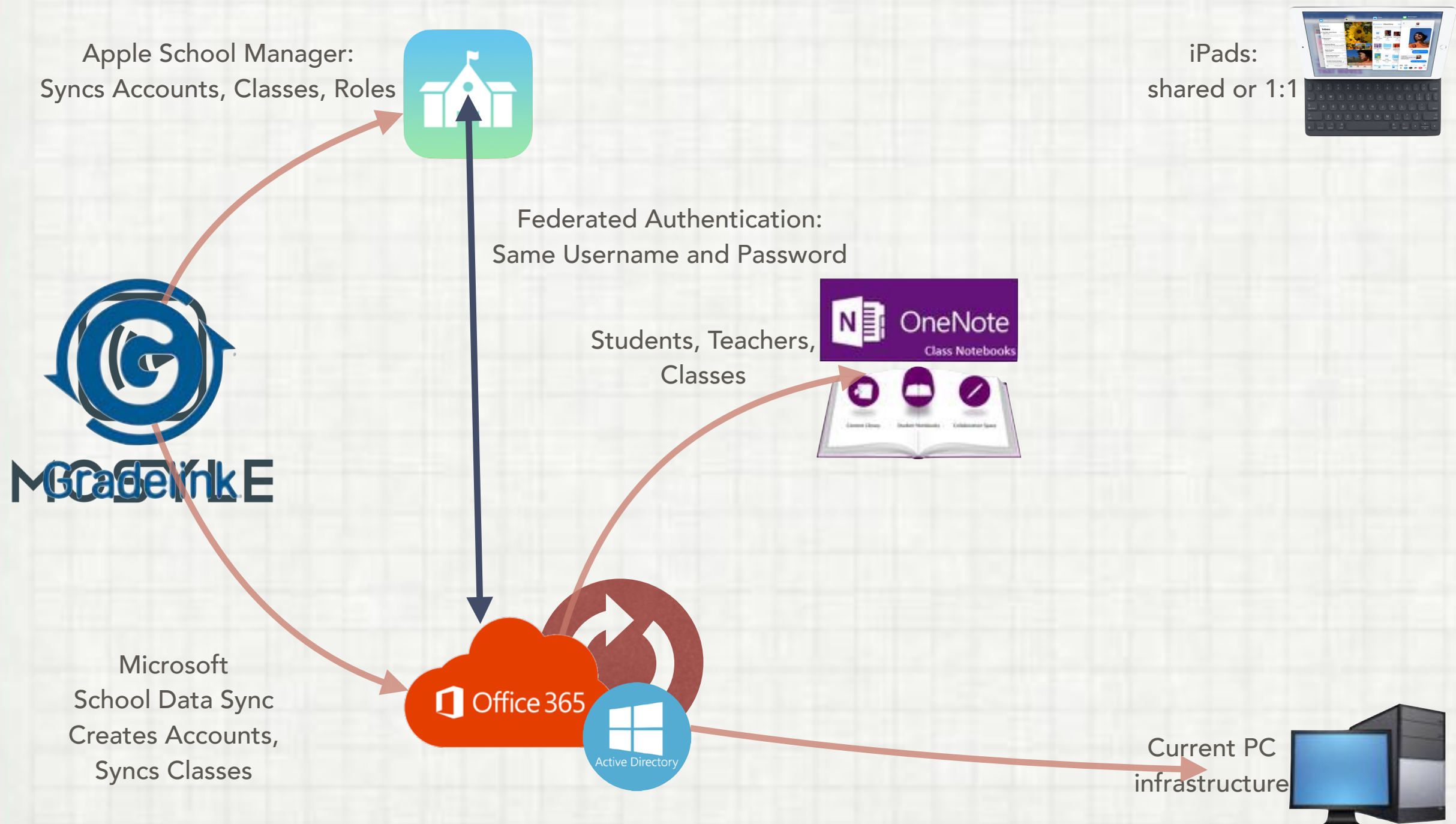
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