

Teaching Technology to Newcomers



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NJTESOL/NJBE Spring Conference 2019

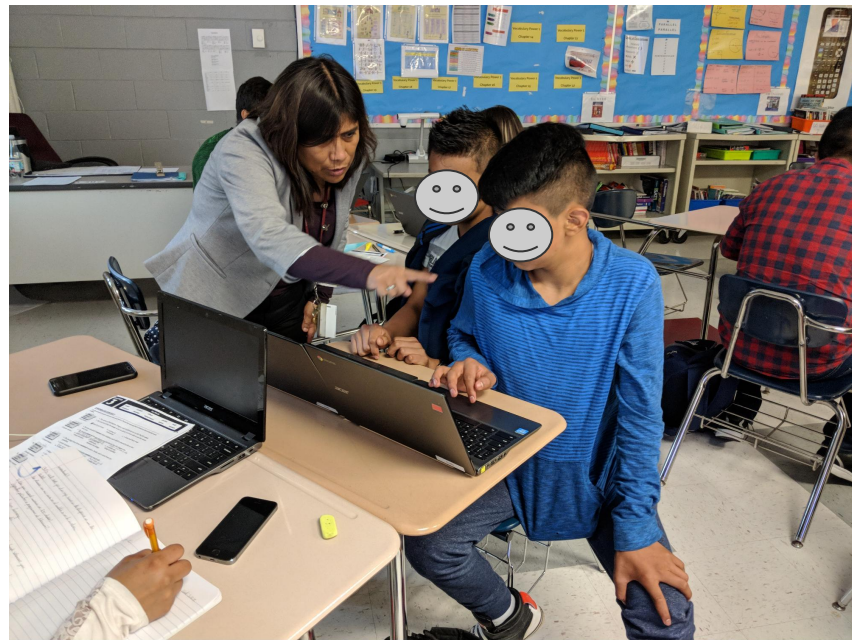
- Newcomers Program @ Bernards High School
- Technology and ELs
- Skills
- Applying Technology Skills to Academic Tasks
- Further Scaffolds
- Resources

Newcomers @Bernards High School

- The majority of students in our Newcomers Program are SLIFEs
- Come from Central America
 - Honduras → Spanish speakers
 - Guatemalan → Spanish and Mam speakers
 - Paraguay → Spanish and Guarani speakers
- Have a wide range of background knowledge about technology
- Previous educational experiences range from first grade education up to completing high school, with the average being a 3rd grade education.
- Many students live in non-traditional family settings or have experienced trauma before or during their journey here.
- Many of our high schoolers are independent and work full time in addition to school, live alone and support themselves.

Newcomers @Bernards High School

- Newcomers Program
 - ELL Bilingual Math (1 full year)
 - ELL Bilingual Social Studies (semester)
 - ELL Bilingual Science (semester)
 - ELL Transitional Skills (1 full year)
 - Beginner ESL English(1 full year)
 - Beginner ESL(1 full year)
- ELL Transitional Skills Curriculum
 - Semester 1
 - School
 - Time
 - Calendar
 - Seasons
 - Numbers
 - Money
 - Semester 2
 - Computer Skills
 - Typing
 - Google Suite
 - Research
 - Reading for Information



Technology and ELs

- According to [¡Colorín Colorado!](#),
“English language learners' experience with technology can vary greatly from one student to the next. Some kids may have never used a computer. Others may be doing all of the troubleshooting!”
- What is Digital Citizenship?
Well, first *citizenship*, which is formally defined as “the quality of an individual’s response to membership in a community.” This makes citizenship far more complex than a simple legal matter, but rather one that consists of self-knowledge, interaction, and intimate knowledge of a place, its people, and its cultural history. So digital citizenship is nearly the same thing—“the quality of a response to membership in a *digital* community” ([Teach Thought](#), 2017)
- A definition for educators: Digital Citizenship is “The quality of habits, actions, and consumption patterns that impact the ecology of digital content and communities.” ([Teach Thought](#), 2017)



DIGITAL CITIZENSHIP

Use

Use technology to gather information, communicate, or to just-have-fun.

Engage

Engage in the world through social media. Crowdsource! Inquire!

Respect

Respect others' point of view on the internet. Accept what they say as meaningful and then explain why you disagree.

Give

Give the author credit for the work you use.

Voice

Respectfully voice your opinion through a technological venue.

Sift

Sift through the resources you have gathered online.

SEEK

Find different voices and points of view on a topic.

Include

Include all who wish to join.

Listen

Listen to what others are saying. Engage in active listening techniques.

Technology and ELs

- Students are part of a digital community within their school and within their world.
- Technology is an “intrinsic part of the classroom.”
 - Use of visual supports
 - Assists visual learners
 - Aides in self-learning
 - **Technology has its place, but also has to be kept in its place. It's a supplemental asset, not a magic bullet, that needs to be used strategically. It's great to enhance reading instruction, for writing for authentic audiences all over the world (and not just the teacher), and for providing a way for students to learn from mistakes they make through self-correcting exercises that only they — and not the whole world — sees. However, nothing beats face-to-face interaction, nuanced instruction, and personal encouragement. ([¡Colorín Colorado!](#))
- [Preparing](#) ELs to be 21st-Century learners

Technology and ELs

- Challenges
 - Language skills and vocabulary
 - Limited Access outside of school time
 - Different levels of Experience
 - School infrastructure → school access to technology and resources
 - Keeping Up → new jargon and technology
- Survey of 117 teachers in 2002 regarding Special Education and EL students technology learning conducted by the Visilearn Company identified the most effective strategies as:
 - Hands-on labs
 - Simple, step-by-step instructions
 - Lots of large graphics
 - Information presented in small chunks
 - Real-world exercises

Technology and ELs

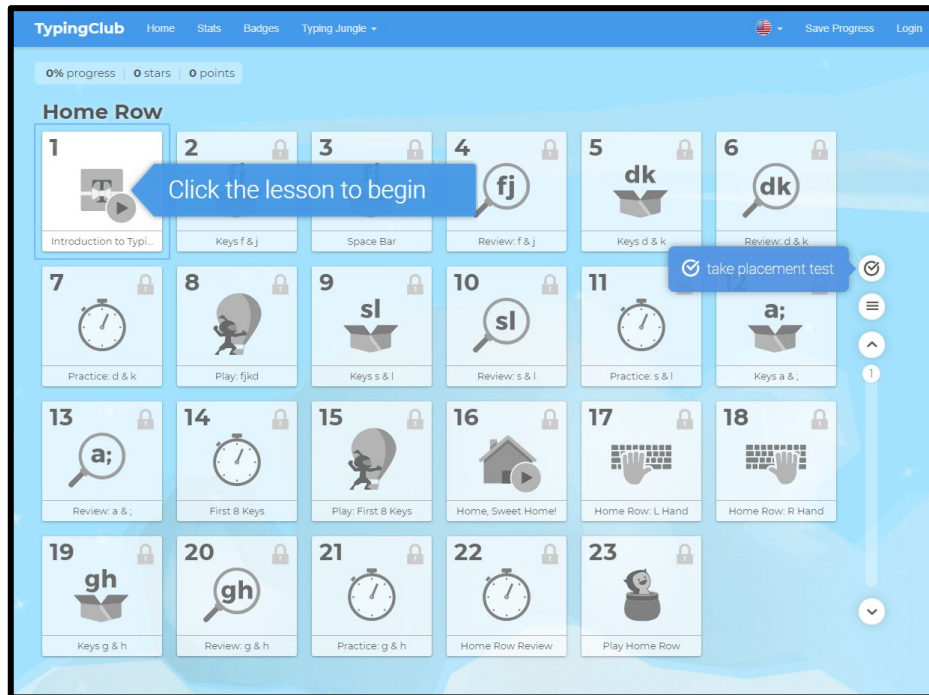
- Presenting Class Material
 - **Tasks:** Computer tutorials should be organized by tasks: the things most students want to do with the program.
 - **Steps:** For each task, concise, step-by-step instructions should be provided.
 - **Illustrations:** Each step should be illustrated with a computer screenshot that shows exactly what to do. The bigger the illustration, the better.
 - **Reinforcement:** At the end of each important task, stand-alone exercises should be included to give students an opportunity to practice the tasks. Including multiple exercises will ensure that students who work quickly will remain occupied.
- Build Vocabulary
 - Find out what students know
 - Review the basics
 - Use props and demonstrations
 - Check comprehension
- Use handouts → screenshot is your friend!
- Create simple assignments for beginners → work with known information
- Extended practice time → guiding the mouse, clicking, double-clicking, dragging, scrolling, search engines
- Use pair and group work → collaborative documents, peer-teaching
- Establish meaningful goals → motivation comes from content that is interesting and relevant
- Teach students to consider the source

Typing Club

- Free!
 - Paid version available
 - Free version offers up to 2 teachers and up to 3 classes
- 100 lessons on the keyboard
- Begin in September
 - Teach about the parts of the keyboard, parts of the chromebook, safety
- Navigating and logging in skills
- Multiple uses



Typing Club - Student View



The image shows the 'Typing Club' Home Row interface. At the top, there's a navigation bar with 'Home', 'Stats', 'Badges', and 'Typing Jungle'. Below this, a progress bar shows '0% progress', '0 stars', and '0 points'. The main area is a grid of 24 lesson cards, numbered 1 to 23. Card 1 is 'Introduction to Typing' and is highlighted with a blue arrow pointing to it with the text 'Click the lesson to begin'. Other cards include 'Keys f & j', 'Space Bar', 'Review: f & j', 'Keys d & k', 'Review: d & k', 'Practice: d & k', 'Play: fjk', 'Keys s & l', 'Review: s & l', 'Practice: s & l', 'Keys a & ;', 'Review: a & ;', 'First 8 Keys', 'Play: First 8 Keys', 'Home, Sweet Home!', 'Home Row: L Hand', 'Home Row: R Hand', 'Keys g & h', 'Review: g & h', 'Practice: g & h', 'Home Row Review', and 'Play Home Row'. A blue button with a checkmark and the text 'take placement test' is overlaid on the grid. On the right side, there are icons for a menu, a home button, and a search icon.

TypingClub Home Stats Badges Typing Jungle

0% progress 0 stars 0 points

Home Row

1 Introduction to Typing

2 Keys f & j

3 Space Bar

4 Review: f & j

5 Keys d & k

6 Review: d & k

7 Practice: d & k

8 Play: fjk

9 Keys s & l

10 Review: s & l

11 Practice: s & l

12 Keys a & ;

13 Review: a & ;

14 First 8 Keys

15 Play: First 8 Keys

16 Home, Sweet Home!

17 Home Row: L Hand

18 Home Row: R Hand

19 Keys g & h

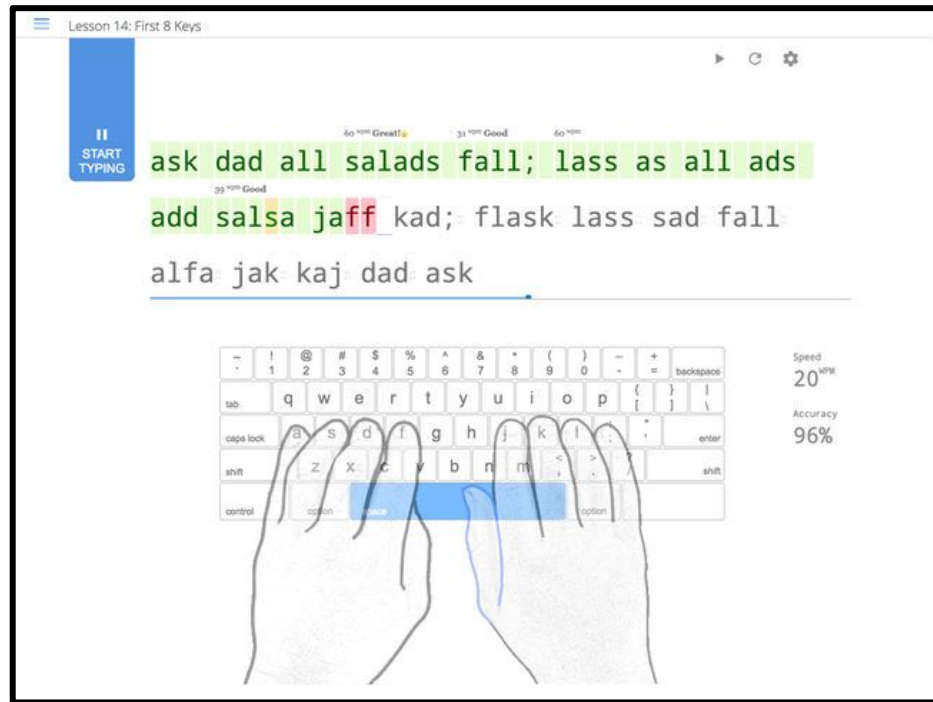
20 Review: g & h

21 Practice: g & h

22 Home Row Review

23 Play Home Row

take placement test



The image shows the 'Lesson 14: First 8 Keys' interface. At the top, there's a navigation bar with 'Lesson 14: First 8 Keys'. Below this, there's a blue button with the text 'START TYPING'. The main area displays three lines of text for typing practice: 'ask dad all salads fall; lass as all ads', 'add salsa jaff kad; flask lass sad fall', and 'alfa jak kaj dad ask'. Above the first line, there are performance indicators: '60 WPM Great!', '31 WPM Good', and '60 WPM'. Below the text, there's a keyboard diagram showing the first eight keys (q, w, e, r, t, y, u, i) highlighted in blue. On the right side, there's a speedometer showing 'Speed 20 WPM' and 'Accuracy 96%'.

Lesson 14: First 8 Keys

START TYPING

ask dad all salads fall; lass as all ads

add salsa jaff kad; flask lass sad fall

alfa jak kaj dad ask

Speed 20 WPM

Accuracy 96%

Typing Club - Teacher View



Dashboard



Classes



Students



Instructors



Typing Tests



Lesson Plans



Settings



Billing



Reports



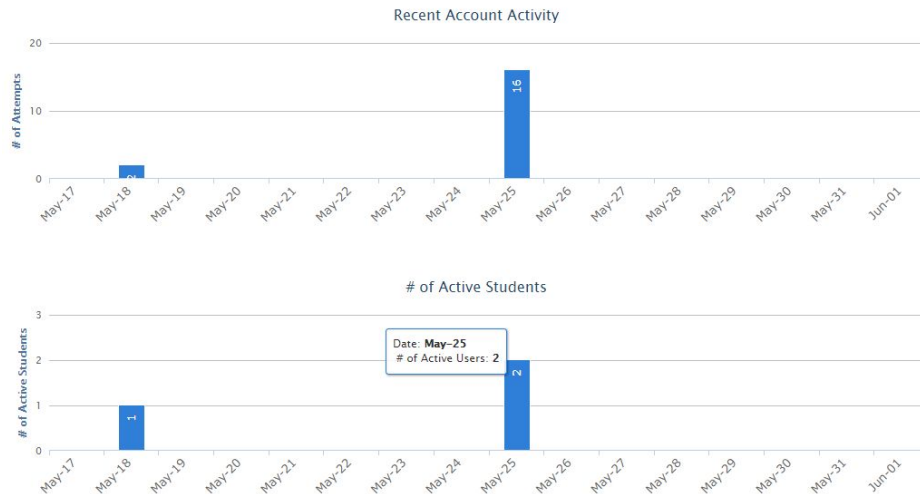
Support



Documentation



Project Updates



Live Activity Feed

Time	Student	Lesson	Stars	Accuracy	Speed	Score		
11:35 a.m.	Abdias Perez Lopez	#14 Keys w & o	★★★★★	96%	25 WPM	2658	▶	👁
11:34 a.m.	Abdias Perez Lopez	#13 Review: ei	★★★★★	97%	21 WPM	2469	▶	👁
11:31 a.m.	Abdias Perez Lopez	#51 Capital SLA:	★★★★☆	92%	14 WPM	1645	▶	👁
11:28 a.m.	Abdias Perez Lopez	#50 Capital JFKD	★★★★☆	92%	16 WPM	1504	▶	👁
11:25 a.m.	Abdias Perez Lopez	#49 Goal 30 WPM	★★★★☆	95%	15 WPM	1128	▶	👁
11:20 a.m.	Abdias Perez Lopez	#48 Goal 30 WPM	★★★★☆	96%	19 WPM	1459	▶	👁
11:19 a.m.	Abdias Perez Lopez	#5 Review: Is	★★★★★	98%	18 WPM	2593	▶	👁
11:18 a.m.	Abdias Perez Lopez	#48 Goal 30 WPM	★★★★☆	99%	18 WPM	1470	▶	👁
11:16 a.m.	Abdias Perez Lopez	#47 Goal 30 WPM	★★★★☆	98%	17 WPM	1360	▶	👁
11:13 a.m.	Abdias Perez Lopez	#46 Goal 30 WPM	★★★★☆	95%	16 WPM	1190	▶	👁

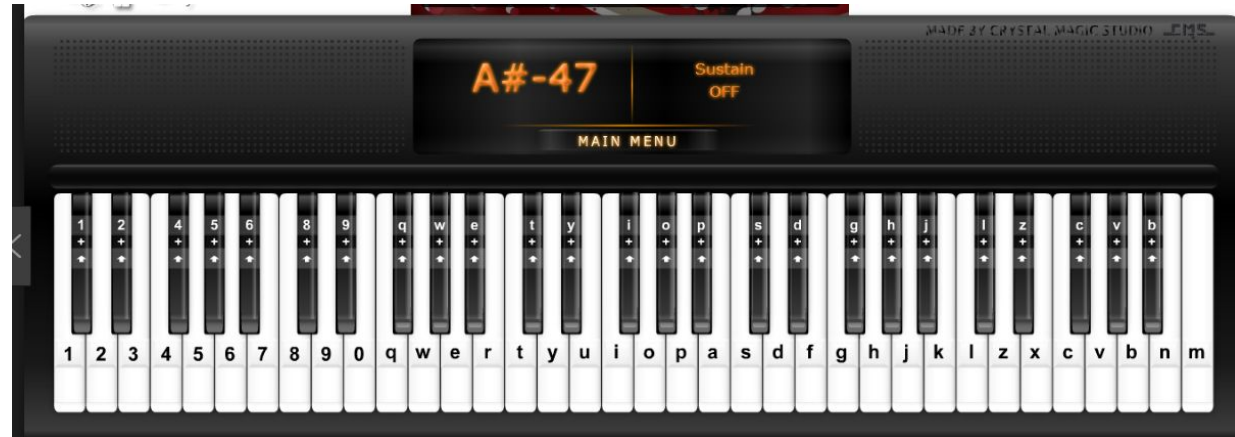
Typing Games

www.typing.com → Typing Games

[Typing Games Zone](#)

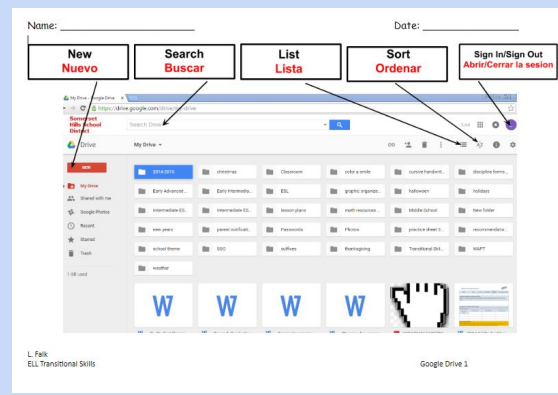
[ENSE-LANG](#)

[Virtual Piano](#)





- Build Vocabulary
- Use handouts → screenshot is your friend!
- Google Drive
 - Create folders for each class
 - Practice saving to a location for each new document
 - NAME YOUR DOCUMENTS!!!!!!!!!!!!!!
 - NO UNTITLED!!!!!!!!!!!!!!
 - Organize unsorted documents at the end of the year



Name: _____ Date: _____

Google Drive

Vocabulary:

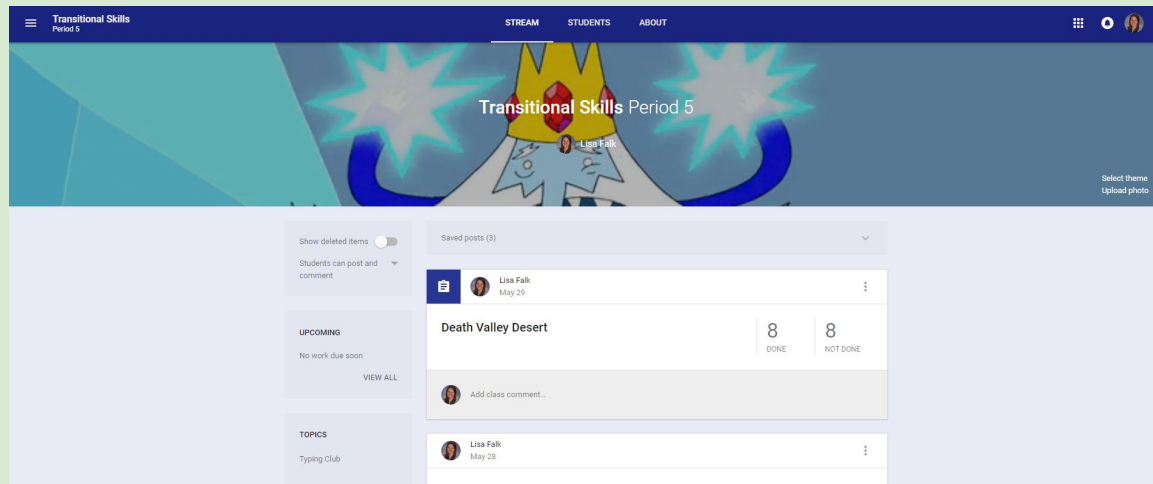
new	nuevo	undo	deshacer
document	documento	redo	Rehacer
presentation	presentación	save	ahorrar
spreadsheet	hoja de cálculo	share	para compartir
drawing	dibujo	remove	para eliminar
folder	carpeta	rename	para cambiar el nombre
computer drive	unidad de ordenador	search	buscar
photo	fotografía	sort	para ordenar
settings	ajustes	open	abrir
alphabetical order	orden alfabético	close	cerrar
recent	reciente	list	una lista
starred	sembrado de estrellas	grid	una cuadrícula
trash	basura	sign in	abrir la sesión
account	cuenta	sign out	cerrar la sesión
apps	aplicaciones	download	descargar

L. Falk ELL Transitional Skills Google Drive 1

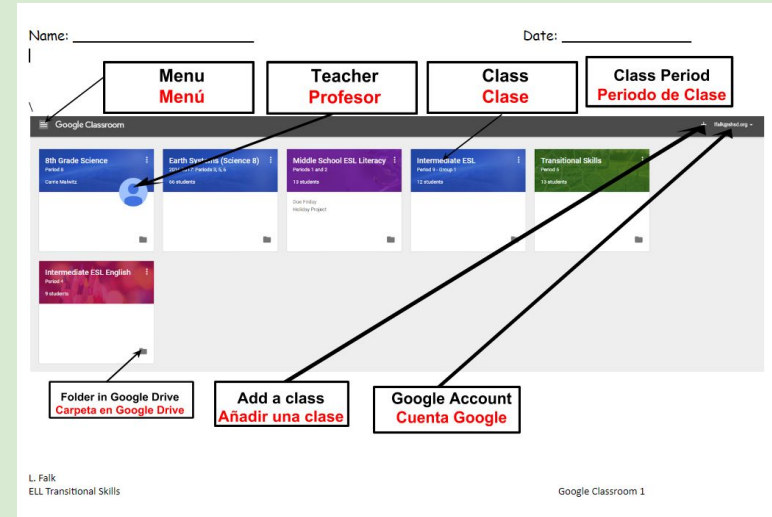
Name: _____ Date: _____

Shortcut Keys:

Shift + t	New Document	Ctrl + z	Undo
Shift + p	New Presentation	Ctrl + Shift + z	Redo
Shift + s	New Spreadsheet	/	Search Drive
Shift + d	New Drawing	Ctrl + /	Shortcut Menu
Shift + f	New Folder	N	Rename




- Build Vocabulary
- Use handouts → screenshot is your friend!
- Google Classroom
 - Label parts in both languages to create connections, multiple meaning words



Presenting Material

- Hands-on labs
- Simple, step-by-step instructions
- Lots of large graphics
- Information presented in small chunks
- Real-world exercises

www.inpics.net

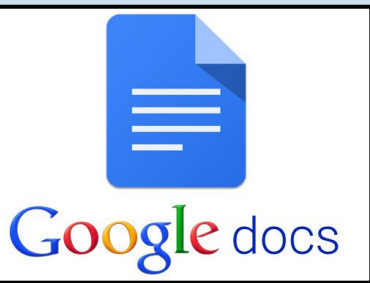


in pictures

The simplest way to learn computer subjects

Office 2007	Office 2010	Office 2013	Google Suite	Web Skills	VPN Software
Access 2007	Access 2010	Access 2013	Google Docs	PHP Basics	What is a VPN?
Excel 2007	Excel 2010	Excel 2013	Google Sheets	MySQL	Best VPNs
PowerPoint 2007	PowerPoint 2010	PowerPoint 2013	Google Slides	HTML/CSS	
Word 2007	Word 2010	Word 2013			

Computer tutorials based on pictures, not words.



- Chunk information
- Focus on a couple of skills at a time
- Embed skills in content-related tasks
- Google Docs
 - Part 1→ create documents, cut/copy/paste text, format text and paragraphs, research and insert/format images
 - Part 2→ Employ Tables
 - Part 3→ formal writing techniques, organization, headers, page numbers

DOCS BASICS

Create a New Document

Cut, Copy and Paste

Format Words

- Change font
- Change font size
- Change font style
- Change font color

Format Paragraphs

- Change paragraph alignment
- Indent paragraphs
- Change line spacing

Use Bullets and Numbering

- Apply bullets
- Apply numbering
- Change bullet character

Adjust Page Settings

- Set margins
- Change orientation
- Set paper size

Check Spelling

Change the Zoom Level

Print a Document

- Print a PDF
- Print to the Web

LONG DOCUMENTS

Format Text with Styles

- Apply a style
- Create new styles
- Modify a style

Find and Replace

Set Tabs

Insert a Page Break

Employ Headers and Footers

- Insert headers
- Insert page numbers

SPECIAL FEATURES

Insert Pictures

- Move and resize pictures
- Wrap text around pictures

Employ Tables

- Insert a table
- Add rows and columns
- Change column width

Create a Hyperlink

Undo and Redo

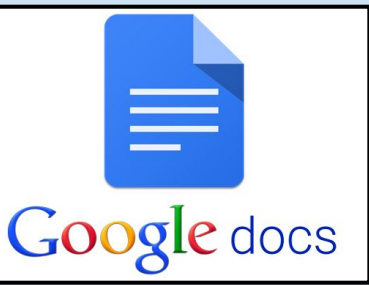
ADVANCED DOCS

Employ Templates

Count Words

Insert Table of Contents

Collaborate with Others



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- **Reinforcement:** At the end of each important task, stand-alone exercises should be included to give students an opportunity to practice the tasks. Including multiple exercises will ensure that students who work quickly will remain occupied.
- Example→

Chart

- ☐ Title font→ Center Align, Times New Roman, Size 12, **Bold**, Underlined



- ☐ Subtitles font→ Center Align, Times New Roman, Size 12, **Bold**

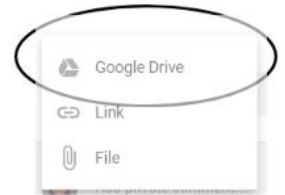


- ☐ Text font→ Center Align, Times New Roman, Size 12



Submit

- ☐ Open Google Classroom
Go to Transitional Skills: Period 5
Click on "Google Docs Project 1"
Click "Add"
Click "Google Drive"
Click on "Recent"
Click on the Document.
Click Add.
Click "Turn In."



- ☐ Close your document.



The Renaissance

- Text and Images

Amabilia Perez
Transitional Skills
Period 9
2 / 6 / 19

The Renaissance ~ El Renacimiento

Keywords ~ Palabras Claves

Leaders of a religion are called **clergy**.
Los líderes de una religión son **el clero**.



Magellan visited many new places. He was an **explorer**.
Magallanes visitó muchos lugares nuevos. Él era un **explorador**.



A **manuscript** was a book write by hand.
Un **manuscrito** es un libro escrito a mano.



Movable type improved the way books were made.

The Reformation - Longer, Academic Tasks

The Reformation

In the early 1500s, Martin Luther, a Roman Catholic monk in Germany, began the Reformation. Luther did not agree with some of the teachings of the Church. For example, the Church taught that people could only go to heaven if they did good **deeds**. Luther believed that **faith** alone was the most important thing. Luther also believed that the Church did some wrong things. He told the Church that it needed to **reform** its ways. He made a list of protests, called 95 theses, and nailed them to a church door.

The Roman Catholic Church was very angry with Martin Luther. It tried to force German **officials** to punish him. But many people in Germany and other parts of northern Europe agreed with Luther. They joined in his **movement**, called Lutheranism. The Lutheran Church became the first Protestant church. **Eventually**, the Roman Catholic Church made some reforms. A group of clergy called Jesuits was created to strengthen the Catholic faith in Europe.

Before You Go On

Who was Martin Luther?

Martin Luther was...a monk who believed that the Church did some wrong things.

The Cells Outline - Creating Outlines to Summarize Information

Cloze

Transitional Kill

Period 9

3/13/19

The cell

I. Plant and Animal Cells

A. All living things are made of cells

1. All cells need food. Water and to eliminate wastes
2. A cell is the smallest structure of life
3. Cells have different structures with different jobs
 - a) Get food and water
 - b) Keep the cell clean
 - c) Reproduction

B. Cell parts

1. Combination: the outer covering of the cell
 - a) Water and food enter
 - b) Waste leaves
2. Nucleu: the control center that directs all cell activities
3. Cytoplasm: a gel-like substance that surrounds all parts of the cell within the membrane
4. **Plant cells** also have
 - a) Cell wall: adds more support to the plant cell
 - b) chloroplast : use energy from the sun to combine water and carbon dioxide to make food for the cell

Photosynthesis Lab Report - Summative

Name: _____

Transition Skills

Period 9

3/14/19

Photosynthesis Lab Report

1. Question (Purpose) ~ *Pregunta (Propósito)*

2. Hypothesis ~ *Una Hipótesis*

3. Materials (what do you need to conduct the experiment) ~ *Materiales (que necesitas para realizar el experimento)*




4. Procedure (the order in which you conducted the experiment) ~ *Procedimiento (el orden en el que realizaste el experimento)*

5. Results (Observations and Data) ~ *Resultados (Observaciones y Datos)*

Color = *Color*

Size = *Tamaño*

Appearance = *Apariencia*

Date 	Observations Plant in Sunlight 	Observations Plant in the Dark 
3/14/19 Thursday	Color - Size - Appearance -	Color - Size - Appearance -
3/20/19 Wednesday	Color - Size - Appearance -	Color - Size - Appearance -
3/25/19 Monday	Color - Size - Appearance -	Color - Size - Appearance -
3/28/19 Thursday	Color - Size - Appearance -	Color - Size - Appearance -

6. Conclusions ~ *Conclusiones*

In conclusion,

6. Conclusions ~ Conclusiones

The purpose of this experiment was to see how sunlight affects photosynthesis. Our hypothesis was if the plant has sunlight, it will grow, and if it doesn't, it will die. Our materials included a ruler, 2 plants, sunlight (window), and darkness (a box). To complete the experiment, first we labeled Plant A and Plant B. Next we measured and recorded the height, color and appearance of both plants. Then we put 1 plant in sunlight and 1 in darkness. Finally we recorded the size, color and appearance of both plants over 2 weeks.

At the beginning of the experiment, Plant A was green and healthy with green stems and wet soil. At the end of the experiment, Plant A was light green with green stems and dry soil. Our hypothesis was correct.

At the beginning of the experiment, Plant B was green and healthy with green stems and wet soil. At the end of the experiment, Plant B was light green with white stems and wet soil. Our hypothesis was correct.

Why did this happen? It is because of the process of photosynthesis. Photosynthesis is a process where plants use sunlight, water and carbon dioxide to produce oxygen and glucose. If the plant has sunlight and water, the chloroplasts will produce chlorophyll, giving the plant a green color. We saw this in the experiment. Plant A received sunlight, so it used sunlight to produce chlorophyll and grew taller. However, Plant B did not receive sunlight, so it did not produce chlorophyll.



- Google Slides
 - Part1 → create presentations, new slides, format text, insert images or gifs, employ themes
 - Part 2 → creating charts, shapes, background images, word art, format/crop images, slide layouts, rearrange slides
 - Part 3→ animated text, graphics and slide transitions

CREATING A PRESENTATION

Create a Slide

Add New Slides

Insert Pictures

Save pictures from the Web

Insert a picture

Format Text

Format Pictures

Rotate

Crop

Resize

Preview a Presentation

CUSTOMIZING PRESENTATIONS

Insert a Table

Employ Design Themes

Employ a Master Slide

Rearrange Slides

WORKING WITH ANIMATION

Animate Text

Animate Graphics

Create Slide Transitions

PREPARING LIVE PRESENTATIONS

Add Speaker Notes

Collaborate with Others

Publish to the Web

All About Me - Creating Presentations

All About Me

By: Amabilia Perez

1

About Me

- ★ Name: is Amabilia Perez.
- ★ Age: I am 18 years old.
- ★ Country: I am from Guatemala.
- ★ Languages: I speak spanish and mam.



2

My School

- School: [Bernards High School](#)
- Grade: [9](#)
- Favorite Class: [English](#)
- Least Favorite Class: [Study Hall](#)



3

Favorites

- ❖ Favorite Color: Black and White
- ❖ Favorite Food: Chicken wings
- ❖ Favorite Movie: Crepusculo
- ❖ Favorite Music Artist: GJN.



Genetics- Creating Charts, Word Art

Genetics

By: Nerlin
Transitional Skills
Period 9

Genetics is the study of heredity
Genética es el estudio de la herencia



Trait - característica

Trait - are passed from
parents to children.
Las características pasan de
padres a hijos .



1

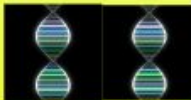
2

3

Genetics and Alleles - Genes y Alelos

A trait is controlled by a gene.

Una característica está controlado por
un gene.



An allele is a form of a gene.

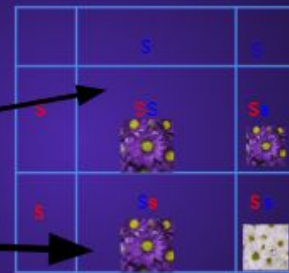
Un alelo es una forma de un gene

A punnett square can be used to find
the probability of traits that offspring
get from their parents.

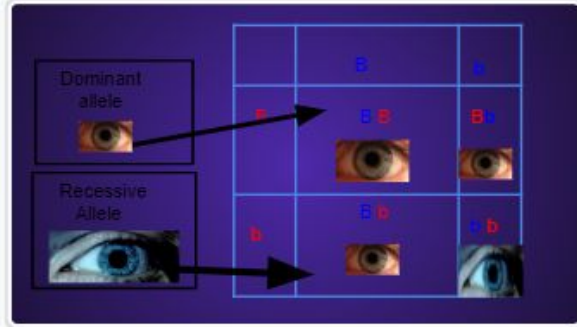
Se puede usar un cuadrado de
punnett para encontrar la probabilidad
de características los hijos obtengan
de sus padres

Genotype
Genetic
Makeup

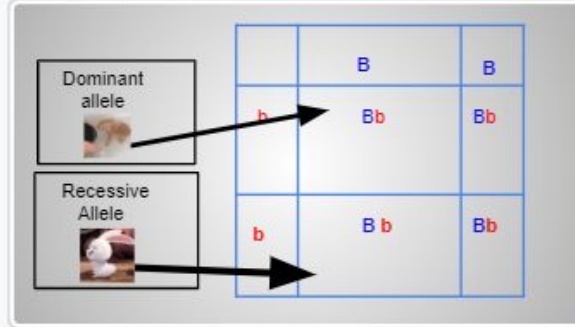
Phenotype
Traits you can
see



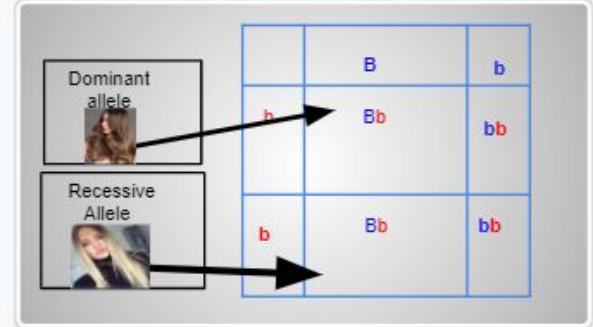
Genetics- Creating Charts, Word Art



7



8



9



- Google Sheets
 - Part 1 → Operations with Two Values (add, subtract, multiply, divide, sum), format text and boxes
 - Part 2 → create multiple tabs, formatting text, adjusting columns and rows, AUTOFILL, multiple worksheets in 1 document
 - Part 3 → collect data and create graphs or charts, employ functions such as total

PERFORMING BASIC CALCULATIONS

Add

Subtract

Multiply

Divide

Calculate Averages

Find the Maximum Value

FORMATTING WORKSHEETS

Format Text

Modify fonts

Format numbers

Format Cells

Change cell color

Add borders

Shift alignment

Adjust Columns and Rows

Adjust column width

Adjust row height

Print Worksheets

MANIPULATING DATA

Move, Copy, and Paste

Add/Delete Columns

Add/Delete Rows

Employ Multiple Worksheets

Employ AutoFill

Insert/delete Worksheets

ADVANCED CALCULATIONS

Create Formulas across Worksheets

Employ Absolute References

Employ Functions

Understand Formula Errors

MAKING DATA VISIBLE

Add Comments

Freeze Panes

Create Charts

Change chart type

Change labels

Snack Order - Calculations

Search the menus (Alt+**/**)

100%

\$ %

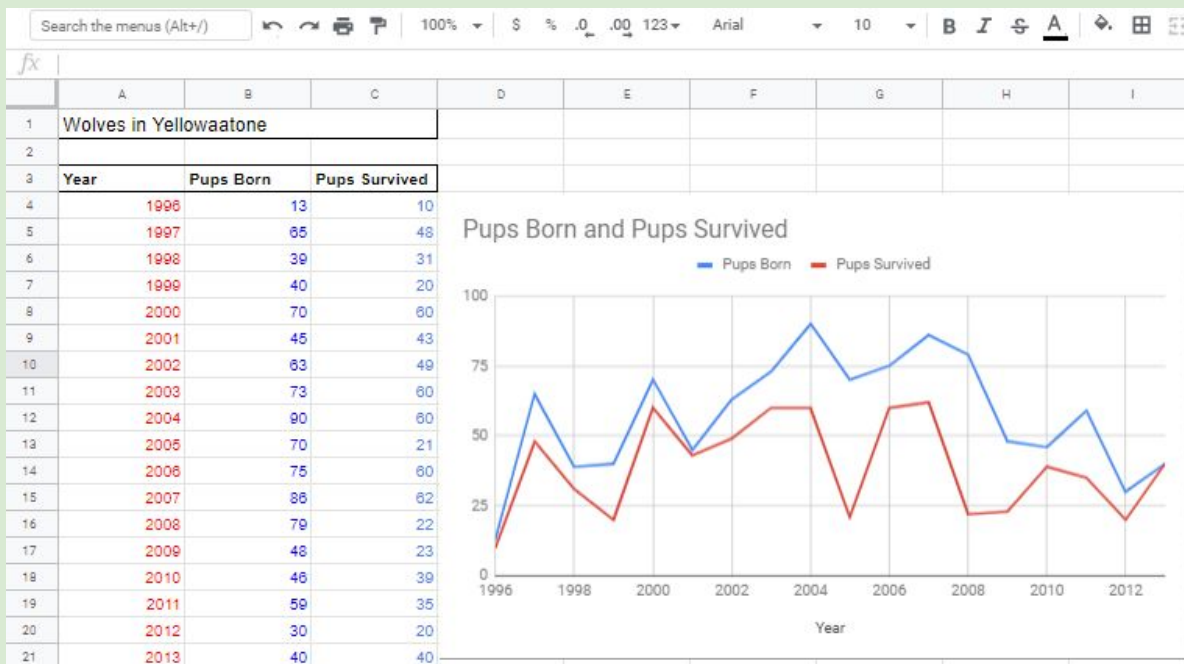
fx

Period 5 Snack Order

	A	B	C	D
1	<u>Period 5 Snack Order</u>			
2		Amount	Cost	Total
3	Doritos	11	\$1.00	\$11.00
4	Baked Chips	1	\$1.25	\$1.25
5	Water	2	\$1.50	\$3.00
6	Snapple	2	\$1.25	\$2.50
7	Powerade	1	\$1.50	\$1.50
8	Juice	1	\$1.50	\$1.50
9				
10	Total \$ needed			\$20.75
11				
12				

Regular BHS Schedule						
	A	B	C	D	E	F
1						
2		Monday	Tuesday	Wednesday	Thursday	Friday
3	Period 1	7:45-8:27	7:45-8:27	7:45-8:27	7:45-8:27	7:45-8:27
4	Period 2	8:31-9:16	8:31-9:16	8:31-9:16	8:31-9:16	8:31-9:16
5	Period 3	9:20-10:02	9:20-10:02	9:20-10:02	9:20-10:02	9:20-10:02
6	Period 4	10:06-10:48	10:06-10:48	10:06-10:48	10:06-10:48	10:06-10:48
7	Period 5	10:52-11:34	10:52-11:34	10:52-11:34	10:52-11:34	10:52-11:34
8	Period 6	11:38-12:20	11:38-12:20	11:38-12:20	11:38-12:20	11:38-12:20
9	Period 7	12:24-1:06	12:24-1:06	12:24-1:06	12:24-1:06	12:24-1:06
10	Period 8	1:10-1:52	1:10-1:52	1:10-1:52	1:10-1:52	1:10-1:52
11	Period 9	1:56-2:41	1:56-2:41	1:56-2:41	1:56-2:41	1:56-2:41
12						
13						
14						
15						

Wolf Pups in Yellowstone Data - Graphs



Wolf Pup Survival Rate Graph Questions

1. In what year were the highest number of pups born? How many pups were born that year?
2. In what year were the lowest number of pups born? How many pups were born that year?
3. In what year did the highest number of pups survive? How many pups survived that year?
4. In what year did the lowest number of pups survive? How many pups survived that year?
5. In what years were 40 pups born?
6. In what years did 60 pups survive?
7. Why do you think more pups survived in some years and not in others?

Wolf Pups in Yellowstone Data

7. Why do you think more pups survived in some years and not in others?

Student Responses:

- For lack of food.
- Because some don't have food and energy.
- For lack of food and attention to puppies.
- Because in other years they did not open more survivors.
- I think more pups survived in some year may be because the change of whether or there was less food.
- Because God wanted it that way.

Populations and Communities

Populations and Communities

Big Question How is an ecosystem organized?

You will...

- Explain that a habitat provides everything an organism needs to live.
- Describe how populations in an ecosystem can change.
- Use vocabulary terms to describe the levels of organization in an ecosystem.

Talk About It

A *habitat* is an environment that provides the things an organism needs to live, grow, and reproduce. What does this habitat provide? Circle the things that help the organisms live.



Which of the things you have circled are living? Which are not living?

Predict

Look at the Big Question and the "You will..." statements at the top of the page. Describe what you think you are going to learn in this lesson.
I think I am going to learn about...

Vocabulary in Context Picture It!



habitat an environment that provides the things an organism needs
biotic factor living parts of a habitat
abiotic factor nonliving parts of a habitat



organism



population



community



ecosystem the community of organisms and the environment in an area

How do populations change in size?

immigration moving into a population

emigration leaving a population



death rate deaths in a population in a specific time period

birth rate births in a population in a specific time period

What limits population growth?

limiting factor something that stops the population from growing (such as size of the pond)

population density number of organisms in a space

carrying capacity the largest population an area can support

Your Turn

Talk with a partner about the pictures in the Picture It box. Then explain how an ecosystem is organized.

Do You Understand?

Draw an ecosystem.

- Draw one organism. It can be any living thing.
- Draw more organisms of this type to make a *population*.
- Draw other populations to make a *community*.
- Add the nonliving parts of the environment to make an *ecosystem*.
- Label your drawing with the terms below.

organism **population** **community** **ecosystem**

Talk About It

How is an ecosystem organized? Look at your picture and the words in the word box to complete the sentences.

- A population is made up of one kind of...
- Many populations make up a...
- A community and the...

Populations and Communities



1. Populations and Communities

Your Turn (Page 39)

Explain how an Ecosystem is Organized.

An ecosystem has habitats. Habitats are environment that provide the things an organism needs. An ecosystem also has biotic factors. Biotic factors are living parts of a habitat. An ecosystem also abiotic factors. Abiotic factors are nonliving parts of a habitat. An ecosystem is the community organisms and the environment in an area. An organism is an animal. Population is a group of organisms. Community is different groups of organisms living together.

Your turn (page)40

1. What organisms are there in your ecosystem?

There is kangaroo, bear, lion, coyote, birds and plants in my ecosystem.

2. What population are there in your ecosystem?

There are population of birds in my ecosystem.

3. What communities live in your ecosystem?

There is community the bear, birds and kangaroo and other community the coyote and lion there are two communities in my ecosystem.

4. What biotic factors are there in your ecosystem?

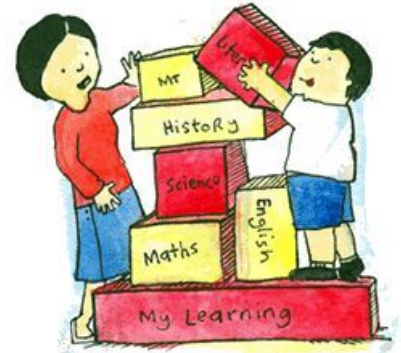
There are birds, kangaroo, lion, coyote, bear, trees, grass, and little water in my ecosystem.

5. What abiotic factors are there in your ecosystem?

There are snow and rocks in my ecosystem.

Some Further Scaffolds

- Have extra copies of what you are doing on the board already printed for students who struggle to see the board or need bigger text
- Modify or shorten length of practices and projects for newer students with slower fingers
- Model one-on-one
- Pair with a proficient student
- Share your copy with students or provide an example of the finished product
- Review skills
- Know your students
- Domain 4 → Students become the teachers!





Resources

(please email me at lfalk@shsd.org if you require access to any of the documents or you would like them as a Microsoft attachment)

- Keyboard
 - [Presentation](#)
 - [Printable](#)
- Google [Signs and Definitions](#)
- Google [Icons](#)
- Google Drive
 - [Label](#)
 - [Vocabulary](#)
- Google Classroom
 - [Label](#)
- Typing
 - [Punctuation Keys](#)
 - [Punctuation Keys 2](#) and [Answers](#)
 - [Shortcut Keys](#)
 - [Emoticons](#)
- Google Docs
 - [Label](#)
 - [Vocabulary](#)
 - Practice 1
 - [Project 1](#) “Making a Pizza”
 - Practice 2
 - [Project 2](#) make a copy of Project 1 and add a second page
 - [Project 3](#) and [Example](#) → cell review study guide
 - [Formal Writing](#) in Documents
 - [Cloze](#) copy for students
- Google Slides
 - [Label](#)
 - [Vocabulary](#)
 - [Practice 1](#)
 - [Project 1](#) “All About Me”
 - Practice 2
 - [1. Photosynthesis and Cellular Respiration](#)
 - [2. The Cell Cycle](#)

Resources con't

(please email me at lfalk@shsd.org if you require access to any of the documents or you would like them as a Microsoft attachment)

- Google Slides con't

- [Project 2](#) and [Example](#) “Energy”
- Project 3: [Add Animations Guide](#) → Make a copy of Project 1 and add animations to all text, images and slides.
- [Genetics Study Guide Example](#)

- Google Sheets

- [Label](#)
- [Vocabulary](#)
- [Practice 1](#) “Basic Calculations”
- [Project 1](#) “School Lunch Menu”
- [Practice 2](#) “School Schedules”
- [Project 2](#) “My Schedule”
- [Practice 3](#) “Class Birthdays/Favorite Colors”
- [Project 3](#) “Social Media”
- [Project 4](#) “Death Valley Desert”
 - [US Climate Data Website](#)
- [Final Project Part 1](#)
 - [Example](#)
- [Final Project Part 2](#)
 - [Kids Do Ecology Website](#)