

INSTRUCTIONAL TECHNOLOGY DEPARTMENT (9629) MICHELLESINGH@DADESCHOOLS.NET

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GOALS AND OBJECTIVES

FLORIDA STATE STANDARDS: COMPUTER SCIENCE STANDARDS

(Click here to access: http://www.cpalms.org/Standards/Computer_Science_Standards.aspx)

SC.35.CS-CC.1.3 Identify ways that technology can foster teamwork, and collaboration can support problem solving and innovation.

SC.35.CS-PC.2.4 Explain how access to technology helps empower individuals and groups...

SC.68.CS-CP.3.I Select appropriate tools and technology resources to accomplish a variety of tasks and solve problems.

SC.35.CS-CP.3.I Write, communicate and publish activities using technology tools.

INTERNATIONAL SOCIETY FOR TECHNOLOGY IN EDUCATION (ISTE)

(Click here to access: <u>http://www.iste.org/standards</u>)

The ISTE Standards are a framework for students, educators, administrators, coaches and computer science educators to rethink education and create innovative learning environments. The standards are helping educators and education leaders worldwide re-engineer schools and classrooms for digital age learning, no matter where they are on the journey to effective edtech integration.

ISTE STANDARDS FOR STUDENTS

Today's students must be prepared to thrive in a constantly evolving technological landscape. The ISTE Standards for Students are designed to empower student voice and ensure that learning is a student-driven process.

I. EMPOWERED LEARNER: Students leverage technology to take an active role in choosing, achieving, and demonstrating competency in their learning goals, informed by the learning sciences.

- 2. DIGITAL CITIZEN: Students recognize the rights, responsibilities, and opportunities of living, learning, and working in an interconnected digital world, and they act and model in ways that are safe, legal, and ethical.
- 3. KNOWLEDGE CONSTRUCTOR: Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts, and make meaningful learning experiences for themselves and others.
- 4. INNOVATIVE DESIGNER: Students use a variety of technologies within a design process to identify and solve problems by creating new, useful, or imaginative solutions.
- 5. CREATIVE COMMUNICATOR: Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats, and digital media appropriate to their goals.

ISTE STANDARDS FOR EDUCATORS

Educators have always held the key to student success. But their role is changing. The ISTE Standards for Educators define the digital age skills and pedagogical insights educators need to teach, work and learn.

- I. LEARNER: Educators continually improve their practice by learning from and with others and exploring proven and promising practices that leverage technology to improve student learning.
- 2. LEADER: Educators seek out opportunities for leadership to support student empowerment and success and to improve teaching and learning.
- 3. CITIZEN: Educators inspire students to positively contribute to and responsibly participate in the digital world.
- 4. COLLABORATOR: Educators dedicate time to collaborate with both colleagues and students to improve practice, discover and share resources and ideas, and solve problems.
- 5. DESIGNER: Educators design authentic, learner-driven activities and environments that recognize and accommodate learner variability.

- 6. FACILITATOR: Educators facilitate learning with technology to support student achievement of the ISTE Standards for Students.
- 7. ANALYST: Educators understand and use data to drive their instruction and support students in achieving their learning goals.

ISTE STANDARDS FOR EDUCATION LEADERS

The ISTE Standards for Education Leaders guide administrators in supporting digital age learning, creating technology-rich learning environments and leading the transformation of the educational landscape.

- I. EQUITY AND CITIZENSHIP ADVOCATE: Leaders use technology to increase equity, inclusion, and digital citizenship practices
- 2. VISIONARY PLANNER: Leaders engage others in establishing a vision, strategic plan and ongoing evaluation cycle for transforming learning with technology.
- 3. EMPOWERING LEADER: Leaders create a culture where teachers and learners are empowered to use technology in innovative ways to enrich teaching and learning.
- 4. SYSTEMS DESIGNER: Leaders build teams and systems to implement, sustain and continually improve the use of technology to support learning.
- 5. CONNECTED LEADER: Leaders model and promote continuous professional learning for themselves and others.



COURSE OUTLINE/OVERVIEW

DESCRIPTION

The use of these technology tools in the classroom reshapes teaching and can transform the learning experience for students. They provide opportunities for students to create, collaborate, communicate, and demonstrate critical thinking. Since students are digital natives, using technology with them is relevant and relatable. Additionally, classroom activities are more engaging and exciting because of the features in these tech tools such as gamification. Overall, technology can make the least favorable area of teaching, assessment, become desirable.

PURPOSE:

Research shows that assessing students in a formative and ongoing manner can increase their speed of learning (William, 2007). Furthermore, formative assessments help educators understand the status of student learning (Brookhart & Nitko, 2015). With this in mind, creating formative assessments that are engaging, exciting, relevant, and relatable for students allows learning to come alive in the classroom and retention to take place. Educators can efficiently communicate achievement information with students; tailor their teaching to support the unique learning needs of students; and use the data they collect to enhance the strengths of students and remediate their limitations (Brookhart & Nitko, 2015).

RATIONALE:

As educators, we have a professional responsibility to our students and to our profession to use quality assessment information that drive our instruction (Brookhart & Nitko, 2015). Educators will understand how utilize online tools to formatively assess content and make learning engaging, interactive, relevant, and stress-free for students. Formative technology tools come in copious forms: collaboration, discussion, game-based, interactive video, presentation, quizzes and survey. These tools can be used before, during, and after teaching to inform instruction to garner feedback so that teaching and learning can be adjusted to improve students' achievement of intended instructional outcomes. Additionally, these emerging technologies can be easily shared with students and are transferable. If a student is out from school, they do not have to miss information because they have several ways to access it --- even on their Smartphones (there is an app for many of them). Students can view what they need on their mobile devices (which we know is attached to them like a limb so they never have a reason to not be able to access and learn something from class).

LESSON PLAN

Teachers use formative assessments before, during, and after a lesson. Formative assessments can be a powerful instructional tool to promote student achievement (Stiggins & DuFour, 2009). The list below offers assessment alternatives for teachers:

BEFORE A LESSON

- I. Admit slips
- 2. Anticipation guides
- 3. Bell ringers
- 4. Entry slips
- 5. Forms
- 6. Icebreakers
- 7. Journal topics
- 8. Opening activities
- 9. Questionnaires
- 10. Videos with discussion

DURING A LESSON

- I. Carousel activities
- 2. Graphic organizers
- 3. Jigsaw activities
- 4. Multiple choice questions
- 5. Open-ended questions
- 6. Response logs
- 7. Strategic questioning
- 8. Think-Pair-Share activities
- 9. Traffic light activities
- 10. True or false questions

AFTER A LESSON

- I. Exit tickets
- 2. Likert scales
- 3. Peer-assessment checks
- 4. Polls
- 5. Quizzes
- 6. Reflection questions
- 7. Self-assessment checks
- 8. Short & extended responses
- 9. Summaries
- 10. Surveys

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Assess With Less Stress

THERE ARE SIX FORMATIVE ASSESSMENT TECHNOLOGY TOOLS IN THIS PROJECT THAT ARE BROKEN DOWN INTO SIX CATEGORIES.

Categories	Technology Tools
I. Collaboration	I. Padlet
2. Discussion	2. Tozzle
3. Game-Based	3. Quizizz
4. Interactive Video	4. EDpuzzle
5. Presentation	5. Buncee
6. Quiz/Survey	6. Poll Everywhere

THE TABLE BELOW PROVIDES DESCRIPTIVE INFORMATION AND LINKS FOR EACH TECHNOLOGY TOOL.

Category	Tool	Description	URLs
Collaboration	Padlet	Padlet creates an online bulletin board that displays information for any topic with images, links, videos, etc.	Website: https://padlet.com/ Tutorial: https://youtu.be/TqRVg2ZMaDM
Discussion	Tozzl	Tozzl is a collaboration tool and digital pinboard where YouTube videos, a Twitter wall, files, pictures, and more can be added to a closed discussion group.	Website: http://tozzl.com/index.html Tutorial: https://youtu.be/zbb2XfdyrCs
Game-Based	Quizizz	Quizizz is an alternative to Kahoot. It allows teachers to conduct student-paced formative assessments in a fun and engaging way for students of all ages.	Website: https://quizizz.com/ Tutorial: https://youtu.be/MgT4VNyXwrc
Interactive Video	EDpuzzle	EDpuzzle is a video platform that helps teachers save time, boost classroom engagement, and improve student learning through video lessons with extras.	Website: https://edpuzzle.com/ Tutorial: https://youtu.be/AtGg8fCM0JU
Presentation	Buncee	Buncee is a creation and presentation tool that effortlessly integrates multimedia content into lessons and projects.	Website: https://www.edu.buncee.com/ Tutorial: https://youtu.be/78xhuSTucyw
Quiz/Survey	Poll Everywhere	Poll Everywhere is a polling app that updates seconds after students enter their votes or responses to polls, questions, word clouds, etc.	Website: https://www.polleverywhere.com/ Tutorial: https://www.polleverywhere.com/ videos/tutorials

SOME EXAMPLES OF THESE FORMATIVE ASSESSMENTS IN ACTION IN THE CLASSROOM ARE AS FOLLOWS:

Before a lesson

The teacher assigns a **Poll Everywhere** activity. The teacher poses a question for students to respond to using their mobile devices. The responses guide how the teacher delivers her content so that students can achieve the learning goals.

During a lesson

The teacher uses **Padlet** for students to complete a collaborative or individual activity that includes images, links to sites, and text that demonstrates their knowledge of the content they are learning. Teachers receive feedback about what the students are learning, and this data can be used to review or enrich the content.

After a lesson

The teacher uses **Quizizz** as an exit ticket to assess student knowledge on the overall concept and receives immediate feedback for which she can reteach and/or reward students for their efforts.

THE TABLE BELOW OFFERS TEACHING IDEAS AND IMPLEMENTATION GUIDES FOR EACH TECHNOLOGY TOOL.

Tech Tool	How it Works
Padlet	 Teachers use Padlet as a web-based pin-board platform.
	Teachers use Padlet to customize boards with the various features to meet the purpose of the lesson (boards can contain simple text or you can add photos, videos, links, audio, or other media).
	 Teachers use Padlet to make boards public or private, and invite others to join and contribute content.
	 Teachers use Padlet to download completed boards for future instructional reference and sharing with students and parents.
	Source: https://www.bookwidgets.com/blog/2017/08/30-creative-ways-to-use-padlet-for-teachers-and- students
Tozzl	 Teachers use Tozzl to give each student a voice in conversations. Teachers use Tozzl to ask questions during a lesson. Teachers use Tozzl to check for understanding. Teachers use Tozzl to gather feedback. Teachers use Tozzl to create "rotating stories" with a story starter. Teachers use Tozzl to discuss an event. Teachers use Tozzl to connect with other classrooms. Teachers use Tozzl to connect with experts. Teachers use Tozzl to teach brevity. Teachers use Tozzl to practice digital citizenship.
Quizizz	Teachers use Quizizz to gamify learning with quizzes and activities that include sound, animations, videos, and more!
	 Teachers use Quizizz to assign learning tasks as homework, classwork, or center activities.

	Teachers use Quizizz so students can participate at their own pace.
	Source: https://www.linkedin.com/pulse/25-reasons-use-quizizz-asessment-tool-martin-hawkins
EDpuzzle	 Teachers use EDpuzzle to hook students before a lesson with videos.
	 Teachers use EDpuzzle to differentiate instruction during the lesson with videos.
	 Teachers use EDpuzzle to check student understanding after a lesson with videos.
	 Teachers use EDpuzzle to upload their own videos or search the library for already created videos that can be edited for immediate use.
	 Teachers use EDpuzzle to crop videos to remove or shorten it to fit the lesson they are teaching.
	 Teachers use EDpuzzle to embed questions (open-ended, multiple choice, discussion) as students watch the video.
	 Teachers use EDpuzzle to record their voice on top of videos, allowing their voice in the lesson.
	Source: http://www.coolcatteacher.com/edpuzzle-review/
Buncee	 Teachers use Buncee to assign a project to students, review and grade submissions, and track progress. Teachers use Buncee to differentiate by including elements of all communication styles-text, audio, video, color, and more. Teachers use Buncee to create cards, fliers, newsletters, and announcements. Teachers use Buncee for digital storytelling with text, images, and media such as video and voice-overs
	 Teachers use Buncee to easily build, add to, organize, and rearrange a lesson plan. Teachers use Buncee to to make slideshows that are more intuitive and easier to share.
	Source: https://askatechteacher.com/2016/05/20/10-things-students-and-teachers-can-do-with-buncee/
Poll Everywhere	 Teachers use Poll Everywhere to spark classroom discussion.
	 Teachers use Poll Everywhere to review yesterday's concepts with multiple-choice or short-response questions that include text and images as responses.
	 Teachers use Poll Everywhere to for a quick snapshot of where the class knowledge or progress is on a particular concept.
	Teachers use Poll Everywhere to administer a quick poll and check out the results, and then discuss with students what they would need to fully understand.
	Source: https://teachbytes.com/2012/03/21/polleverywhere-and-5-classroom-uses-2/

MICHELLE SINGH -- «SINGHNBCT -- WWW.SINGHNBCT.CO/

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FORMATIVE ASSESSMENT MEETS TECHNOLOGY TOOLS



DISCUSSION TOOLS

2. **Tozzl** - users write questions and topics for discussion in a chat platform.





GAME-BASED TOOLS

3. Quizizz - users build quizzes with memes after each question to be played with whole groups or individual students.

INTERACTIVE VIDEO TOOLS

4. **EDpuzzle** - users select a video and customize it by editing, cropping, recording audio, and adding questions to make a lesson.





PRESENTATION TOOLS

5. **Buncee** – users design interactive presentations and lessons with multimedia content.

QUIZ AND SURVEY TOOLS

6. **Poll Everywhere** – users gather responses using multiple choice, open–ended, Q&A, rank order, word clouds, surveys, and clickable image question types.



RESOURCE LIST

CLASSROOM MATERIALS & SETUP:

A technologically-equipped classroom requires at least one computer, internet access, and an interactive board. In the absence of computers in the classroom, a teacher can share lessons and resources with their students via email, Remind, Edmodo, or other learning management program. Students can then view these activities on their Smartphones or tablets. Even if there is no projector in the classroom, the students can view the lesson on their Smartphones and follow along with the teacher.

RESOURCES:

Teachers can utilize the school media center for computer and internet usage. Teachers can also check out or borrow LCD projectors from their school media center. As we know, technology is always changing so even if we know a program, there might be something else that we can learn about it. Therefore, student-experts can teach their classmates and teacher how to use a new program such as Tozzle. Teachers can also write grants to request resources from DonorsChoose.org.

ADAPTABILITY AND GROUPING:

Since the focus of this project is on technological tools and pedagogy, this project fits any subject area, grade level, class size, grouping size, etc. A science teacher could ask students to work in groups to create a Buncee to explain how food is digested. Similarly, a math teacher can ask individual students to create a Padlet where they take and post pictures of geometrical shapes they find in the world around them.

OVERALL VALUE

This project's best feature is that it can be used by any teacher in any grade level, subject area, with any child no matter the achievement level or size of class. These are tools that encourage, engage, and enliven students to share their knowledge. These tools also keep students engrosses students in the learning process so what they are learning becomes relevant, meaningful, and exciting. The entire project offers innovative mediums for students and even teachers. These technological tools bridge the gap between the content the students learn and how they show what they know. Students also get to utilize tools they know well so it is a

confident booster for them. They get to demonstrate their learning in authentic ways. Imagine being a student in the classroom again. Remember the white, dusty writings in chalk on the black (green) board? Think about how the only technology in your class may have been a TV (if you were lucky)? What about the fact that not all teachers had computers because grades were still hand-written in an actual gradebook? Today's students cannot even conceive this scenario because since their birth, technology has been a part of their lives: from the they time fiddled with the keyboard while sitting in their parent's lap as a baby, played learning games on their Leapster or DS, took their first picture, shot their first video, or sent their first tweet or Facebook update. Technology is an essential part of the world of everyone in between the toddler and teen ages. It is what they spend most of their hours doing outside of school; it is the thing they know best -- even if it changes from day to day; it is how they function, and it is what they know. Considering the necessity of technology to today's children, why not use it then to help them learn? Therefore, teachers should adapt this project. Students and teachers both benefit. It is the new way of learning. It is differentiated instruction. It is how we reach kids in a better was using how they learn outside of school. It is the future of our classrooms.



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STUDENT WORK SAMPLE

HERE ARE SOME EXAMPLES OF ASSESSMENTS RESULTS FROM THE FOLLOWING TECHNOLOGY TOOLS WITH CORRESPONDING SCREENSHOTS:

Tool Type	Tool Name	Task
A. Collaboration	Padlet	Participants respond to a wrap-up question/reflection at the end of a lesson.
B. Discussion	Tozzl	Students use Tozzl for Book Talks before, during, and after a lesson.
C. Game-Based	Quizizz	Participants take a quiz about the 4Cs of 21 st Century learning administered during a lesson.
D. Interactive Video	EDpuzzle	Participants watch an interactive video about Digital Footprints before the lesson.
E. Presentation	Buncee	Students create a Buncee All About Me board at the beginning of the school year.
F. Quiz/Survey	Poll Everywhere	Participants respond to an Exit Ticket question at the end of a presentation.

SCREENSHOT EXAMPLE – COLLABORATION TOOL: PADLET

Michelle Singh + 45 2mo Microsoft Sway Training

How can Sway be used to impact students, increase engagement, and/or enhance delivery of content?

Ballard, Crawford, Fussell

Excellent Activity

Sway allows students to be able to work on a project at the sametime and allows them to be able to save projects without having to buy a USB.

Guillermo and Jenny

Sway is a great tool for student presentations!

Myriam and Barbara

Adding creativity!!!!!!!

Swav can prepare students as

Erik, Ivette, Ricky

User friendly, and it makes their assignment easier to understand. Students do not need to worry about font and so forth because it is more of a standard mode.

Kim, Addy, Jim

Collabrorative Projects Getting kids to "buy into" the subject and the learning experience Help students with poor writing skills to express knowledge of content

MARIA & ARANTXA SWAY can be used to impact

ROSEMARIE, MEGAN,

students where they can work in groups collaboratively to create their own SWAY presentations. Students can then review the group SWAYS and provide feedback on each others presentations with regards to relevancy of the information, power points and images they presented.

Edline & Co

Student's Collaboration Motivation and class Working with my population , while students are out on delivery learners can create story experiences and complete project based assignments instead of paper pencil homework packets.

Natalia & Cathy

Create Sway presentations for different content areas and add the links to Edmodo for the students to access. Creates an engaging atmosphere for the students to learn.

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t•zzl.com Deutsch · FAQ · Blog = = 🖂 🏊 🖓 🛗 🖌 🛍 🗖 🖂 . The Book of Lost Things David about his routines. The woodsman also guided David through the woods. In those ways the Woodsman is the mentor. DESCRIPTION This is our Back Channel board for the Book of Lost Things and the Hero's Jared Fitch IE. Journey. 5. Shapeshifter - "to warn and challenge" David's dad and Rose Because they warned him to not lie about the crooked man being in his room. Quinten Heinmiller QH Mentor - "to guide" The Woodsman because he found David and is telling him what the land is like and he also tells David what to do and what not to do f share 8+ share @ pin Send Message... hide February 22 2016 8:08 AM + Impressum + Contact Youtube Yes What makes a hero? - Matthew Winkle 0 -

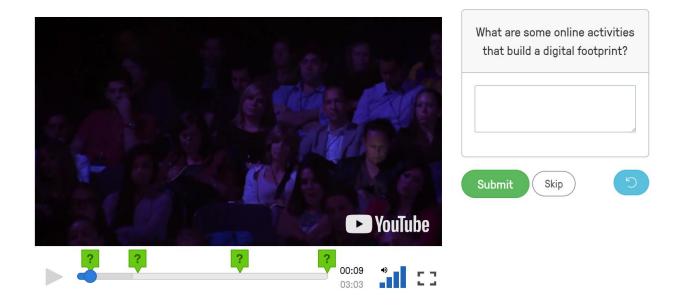
http://edublog.amdsb.ca/kaufman/2016/02/23/backchannel-conversations/

SCREENSHOT EXAMPLE – GAME-BASED TOOL: QUIZIZZ



SCREENSHOT EXAMPLE – INTERACTIVE VIDEO TOOL: EDPUZZLE

Digital footprints | Michelle Clark | TEDxHollywood



SCREENSHOT EXAMPLE – PRESENTATION TOOL: BUNCEE



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SCREENSHOT EXAMPLE - QUIZ/SURVEY TOOLS: POLL EVERYWHERE

What is one way you will you use OneDrive, OneNote, or ClassNotebook to impact learner progress? Please be specific as to how the digital tool will be successful with students.

> Respond at PollEv.com/michellesing046 Text **MICHELLESING046** to **37607** once to join, then text your message

"I plan to implement OneDrive ClassNoteBook into my class by providing students with reading material, and allowing them to annotate the text. This will help the students succeed in their close reading." over 2 years ago

"I will use OneDrive to save all my work documents. OneNote will be used with my coworkers to share grade-level information. Lastly, I will use ClassNotebook to generate class notes and information so my students can have access to it when they get home."

over 2 years ago

"We use is as a departmental lesson plan by grade level for vertical teaming and sharing. Classnotebook will be used with students after testing" over 2 years ago

"I will create bell ringers or warm up questions for each class."

"Initially I will be using to share diverse content material for students to analyze and respond to." over 2 years ago

"I am going to coordinat OneDrive with Edmodo to create engaging digital content." over 2 years ago

"ClassNotebook gives students unlimited access to content which helps their retention." over 2 years ago

"The students will use classnotebook at the end of the 4th quarter." over 2 years ago

"I will create a folder in one drive and then I will share with my students. The students will have the opportunity to study, practice and review information for my class." over 2 years ago

"I will put vocab and power points so that students can access from their lap tops ." over 2 years ago

"I plan to implement OneDrive, OneNote, or ClassNotebook to impact learner progress by creating activities and lessons as well as the use of videos to increase student learning and knowledge." over 2 years ago