

Game-based learning resources you can use tomorrow in your classroom ...

# *Games in the Classroom - Getting the Recipe Right*

Thursday January 14, 2016  
OCCC South Room 330 E



# Games in the Classroom - Getting the Recipe Right

## **Learning Goals:**

- *Participants will be able to try at least one new game-based experience in their classroom using the resources shared today.*
- *Participants will have the tools to change the pedagogy or format of their class using game based principals and free resources.*

*\*Tweet thoughts and questions during this session! #FETCGBL*



Classroom, Inc.

FETC 2016

# Level Up with Game-like Learning

Rebecca Rufo-Tepper  
Director of Programs

Professional Development + Teacher Education





**We design experiences that make learning irresistible.**



**At the core of the experiences we design are games, play, and the principles that underlie them.**



**We empower people to thrive as active citizens in a connected world.**



# Core Questions



How can games be used as a tool for supporting transformation of education?



What needs to happen alongside or with games to make them effective learning tools?







The logo for Teacher Quest features a stylized blue figure of a person with arms raised, positioned above the word "Teacher" in a pink, cursive font. Below "Teacher" is the word "Quest" in a larger, bold, pink sans-serif font.

# Teacher Quest



# GAME-LIKE LEARNING PRINCIPLES

**Everyone is a Participant**

**Learning Feels Like Play**

**Everything is Interconnected**

**Learning Happens By Doing**

**Failure is Reframed as Iteration**

**Feedback is Immediate and Ongoing**

**Challenge is Constant**

# Integrating Games and Game-like Learning

- Analog games
- Digital games
- Game-like activities
- Game-like units of study





MAY DAY MAY DAY!  
Is there anyone out there???  
There is so much gunk flying at my  
ship... I'm in trouble. HEEELLPPP!

PROJECT

## MISSION: DR SMALLZ

DATE

**JANUARY 2016**

CLIENT





A scanning electron micrograph (SEM) showing a dense population of rod-shaped bacteria, likely Bacillus anthracis spores, stained red. The bacteria are arranged in various orientations, some in long chains and others individually. The background is dark, highlighting the textured surface of the bacterial cells.

**Where am I?**

Quest title	Length	Description
We Built this City	3 weeks	For the National Cell City Design Challenge, students are challenged to design and build a physical or digital 3D city buildings and components that mirror different organelles and their functions in a cell.
One Moment in Time	1 week	After their great work with the Cell City Design Challenge, Shrinkley Labs asks students to compete in the company's annual Measurement Olympics.
Every Breath You Take	2 weeks	Students are challenged to find out if something is wrong with the patient's respiratory system. Dr Smallz asks them to design a game to help him figure out how to travel through the respiratory system.
Open Your Heart	2 weeks	Students are challenged to learn about the circulatory system and design an experiment to help Dr. Smallz determine if the patient's circulatory system is working well.
Eat It	2 weeks	Students are challenged to explain how food and energy play a role in the patient's energy level. They must design a meal plan to help the patient regain her strength.
Time to Get Ill	1 week	Students are challenged to create an infographic for Dr. Smallz about the body's immune response.
Bad Medicine	2 weeks	Students diagnose the patient's illness and are asked to debate which treatment is best. They first learn about the nervous before developing their arguments with supporting evidence.

**\*Tweet thoughts and questions during this session! #FETCGBL**





Everyone  
is a  
Participant





Learning  
feels  
like  
Play



Medical:

germs → terms  
germs → terms

all my

Dr. Smallz

Please

I am

I forgot  
I've been  
check  
Help!

Shrunk.

~~snail!~~

~~small~~

em

Feedback  
is  
Immediate  
and  
Ongoing

① Mind  
"M"

② Re

③ L  
C

Reminders

Due  
Tomorrow



Dear Quest to Learn Students,

My name is Dr. Smallz. I am a research scientist and a medical doctor who treats patients with difficult-to-diagnose diseases (think Dr. House from TV meets Bill Nye the science guy). I would do almost anything in pursuit of scientific knowledge and I would do ANYTHING to cure one of my beloved patients. I have a problem. A BIG problem. Well, some might call it a small

problem. It all started one day when one of patients came into my office. There was something wrong with her. Hot. Tired. And moaning. Sorry, I wish I could be more descriptive, but there is something wrong with my memory. You see, I work for Chirley

Challenge  
is  
Constant

490

#1

24

www

Be

High

Pro

www

Loc

Onl

Find

www

De





Learning  
Happens  
by  
Doing









Failure is  
Reframed  
as  
Iteration



...Once  
I can remember my  
medical vocabulary, I think I  
will be able to cure my patient.  
But first I need to figure out where  
I am, and make sure my ship is  
equipped for this body  
system.

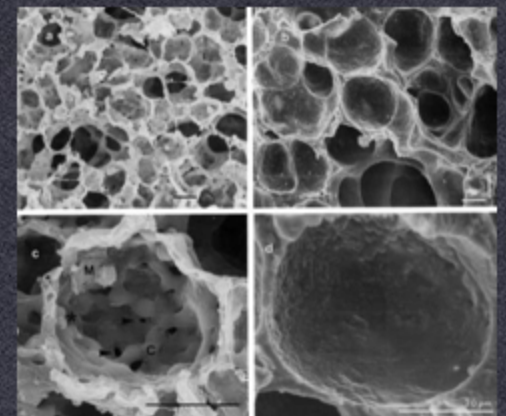


Everything  
is  
Interconnected

**ATMOSPHERIC  
CONDITIONS:**

**WINDY  
MOIST  
WARM**


**PHOTO LOG**





\*Tweet thoughts and questions during this session! #FETCGBL





# Teacher Quest

## Online Course Spring 2016

Using Games and the Design Process to Support the Common Core

Learn how to design game-like learning experiences that increase student engagement, activate key 21st century skills, and improve learning outcomes.

**Open to all K-12 educators. Spots are limited.**

This course is offered by Institute of Play in partnership with the New York City DOE After School Professional Development Program (ASPDP). NYC DOE teachers who register with ASPDP will receive 3 P-credits for completion of this course.

**Dates: February 24 - June 22**

**Registration deadline: February 12**

**Program Fee: \$195**

**ASPDP Course Fee (NYC teachers only): \$125**

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# LEARN MORE

- To Register for Spring course or learn more about TQ: [email pd@instituteofplay.org](mailto:pd@instituteofplay.org)
- Resources for educators: [www.instituteofplay.org](http://www.instituteofplay.org)
- Follow us: [@instituteofplay](https://twitter.com/instituteofplay)



# Classroom, Inc.

Engaging Students • Supporting Teachers

Literacy Games in the Classroom  
Building Middle School Literacy and Leadership

@classroominc  
@brainpop  
@institute of play

\*Tweet thoughts and questions during this session! #FETCGBL

# Classroom, Inc.

Classroom, Inc. is a non-profit organization that helps students in grades 5-9 build literacy and leadership skills. By developing digital learning games and curriculum set in the professional world and supporting educators in creating student-centered classrooms, we invite students to take charge of their learning.



# Our games drive transformative outcomes for students and teachers.

Sample Teacher's Test Class 01 (Period: Test Period / Grade: Mixed) ⌵

Community in Crisis ⌵

☐ Not Started ☒ Started ☒ Completed ☒ Online Now

Student	1 R1.S.3	2 R1.S.4	3 R1.S.4	4 R1.S.3	5 R1.S.3	6 R1.S.4	7 R1.S.3	8 R1.S.3	9 R1.S.3	10 R1.S.3	11 R1.S.3	12 R1.S.3
Alicata, C												
Allen, M												
Canter, J												
Chang-Patt, K												
Cohen, M												
Farr, A												
Grober, R												
Grossman, P												



## For Students:

- Improved literacy skills, reading attitudes, and reading behaviors
- Improved 21st century competencies, including persistence, critical thinking, & decision-making
- Increased career awareness

## For Teachers:

- Improved use of data-driven instructional practices
- Improved level of confidence in implementing blended- and game-based learning tools

**Read to Lead** - literacy learning games and curricula immerses each student in an authentic workplace experience.

- **Community in Crisis** - Director of the Common Ground Community Center, focused on providing services to the community, including health, job, and housing supports, as well as on engaging volunteers.
- **After the Storm** - Editor-in-Chief of the local online magazine, The Daily Byte, focusing on reporting and distributing news to its readers.
- **Vital Signs** –Medical professional diagnosing patients (*Fall '16*).





# The Personalized Learning Experience

## Authentic embedded assessments and tasks



In each episode, students encounter a text-based embedded assessment. This is an engaging, authentically-placed activity that provides students with evidence needed to make a decision about the main challenge. Each activity is designed for students to apply the skills at the heart of the game's target reading standards.



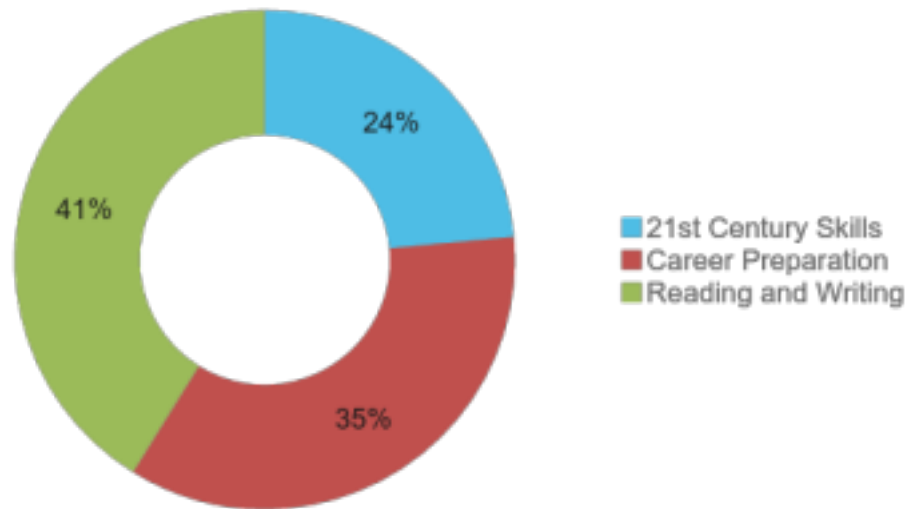
# AFTER THE STORM



# Game Play = Reading and Writing

According to teachers, reading and writing were the most important skills learned from *After the Storm*, followed by career preparation, and 21<sup>st</sup> century skills

**What do you see as the most important thing your students learned from using *After the Storm*?**



“My students have little exposure to different career opportunities and what is expected of someone in the workplace. They gained a lot of information about those topics through *After the Storm*.”

~Teacher, Bronx School for Law, Gov’t, and Justice

“The real world connection between reading and professions and the emphasis of evidence based reading.”

~Teacher, Daviess County Middle School

“I think they learned responsibility and that reading will be in every aspect of their lives, as will decision making.”

~Teacher, DePriest



Classroom, Inc.





Hello, arichards || Logout



## To Do list

- ☐ See how everyone on staff is doing.
- ☐ Check on office internet access.
- ☐ Figure out extent of storm damage.
- ☐ Investigate the local government response.
- ☐ See what reporters know about safety conditions.







# Decision Making/Problem Solving



Hello, anne01 || Logout

## LaDonna Watkins

So, what is it going to be? I still have lots of juicy details that no one knows about yet from my source. Are you going to publish my article or not?

You say...

**It could be a big story for us. We'll publish it.**

**We don't have all the facts. We can't publish it.**







Hello, demotest04 || [Logout](#)





Hmm, take a look at the Tweets again. Which is most directly **related** to this part of the article? If a message is **on-topic** and **extends**, or adds to, the information in an article, it's probably the best Tweet for Maggie to use.

## THE DAILY BYTE

son and I went to stay with my cousins, who live on higher ground in Port Douglas. We were safe, but others in my neighborhood weren't. They either couldn't or *wouldn't* evacuate.

My son and I went back to the lower end to help our trapped neighbors evacuate -- even the pigheaded ones who thought it would be cool to wait out the storm at home. We spent about an hour and a half getting 15 people out of their homes and to safer areas. I'm not a hero, just doing what any good firefighter would do. My son's pretty heroic, though!"

@JacksonWolf

Whoa! I think I just saw someone outside on a surfboard! #LowerEnd #evacuate

### Police Officer Amy Perez

"We got the call around 9 PM, as Dante flooded the South Port area. It was a 911 about two people trapped in a large van. A couple had evacuated their home too late and got caught in a storm surge. The van was filling up fast, so my partner and I made the quick decision to wade through the water to them. I managed to

### Choose the best option.

@MayorYoung

A big thank you to Police Chief Ilfil for his amazing leadership during Dante. #police #volunteers

@JacksonWolf

Whoa! I think I just saw someone outside on a surfboard! #LowerEnd #evacuate

@PortFireDept

City to award Lieutenant Henderson highest honor for saving 15 people during Dante. #rescues

@PortPolice

There are four feet of water in the lower end of Port Douglas. We're helping people evacuate.







Can you let me know what word you think belongs in the sentence?



## One Day After Hurricane Dante: Safety First

Our community can breathe one big sigh of relief that Hurricane Dante is over. The greatest danger may be behind us, but there are still plenty of safety concerns in the \_\_\_\_\_ of the storm.

This storm was so extreme for our area that on Monday everyone living within a quarter mile of a shore had to \_\_\_\_\_, grabbing only what they could in the minutes before they left.

Mayor Young made it clear that following her instructions was \_\_\_\_\_, yet there were those who seemed to think they had a choice about leaving. On Lower Broadway, five families stayed in their homes even though their neighbors told them they had to leave. Every one of those families had to be rescued after the storm hit.

The families that stayed in their homes probably didn't realize that in a hurricane as strong as Dante, rivers can \_\_\_\_\_ 10 feet or more. When the water level is significantly raised, dangerous floods can occur.

Choose the best **option**.

**aftermath:** n. a period of time following a disastrous event

**experience:** n. understanding through doing

**resolution:** n. a course of action decided upon

**upheaval:** n. the action of lifting up forcefully from beneath





Hmm. You might want to come back to this later. I'll bring it back to you in a bit.

OK



## One Day After Hurricane Dante: Safety First

Our community can breathe one big sigh of relief that Hurricane Dante is over. The greatest danger may be behind us, but there are still plenty of safety concerns in the **aftermath** ✓ of the storm.

This storm was so **extreme** for our area that on Monday everyone living within a quarter mile of a shore had to **accept** !, grabbing only what they could in the minutes before they left.

Mayor Young made it clear that following her instructions was **beneficial** !, yet there were those who seemed to think they had a choice about leaving. On Lower Broadway, five families stayed in their homes even though their neighbors told them they had to leave. Every one of those families had to be rescued after the storm hit.

The families that stayed in their homes probably didn't realize that in a hurricane as strong as Dante, rivers can **recoil** ! 10 feet or more. When the water level is **significantly** raised, dangerous floods can occur.

Safety Tip: Stay away from flooded areas!

The fierce winds caused blackouts all over town, and many neighborhoods still







Pick the word that goes best with the photo.

THE DAILY **BYTE**

## Hurricane Dante Slideshow



NEEDS A KEYWORD HERE:



NEEDS A KEYWORD HERE:

Choose the best option.

**submerge:** v. to make something be under water

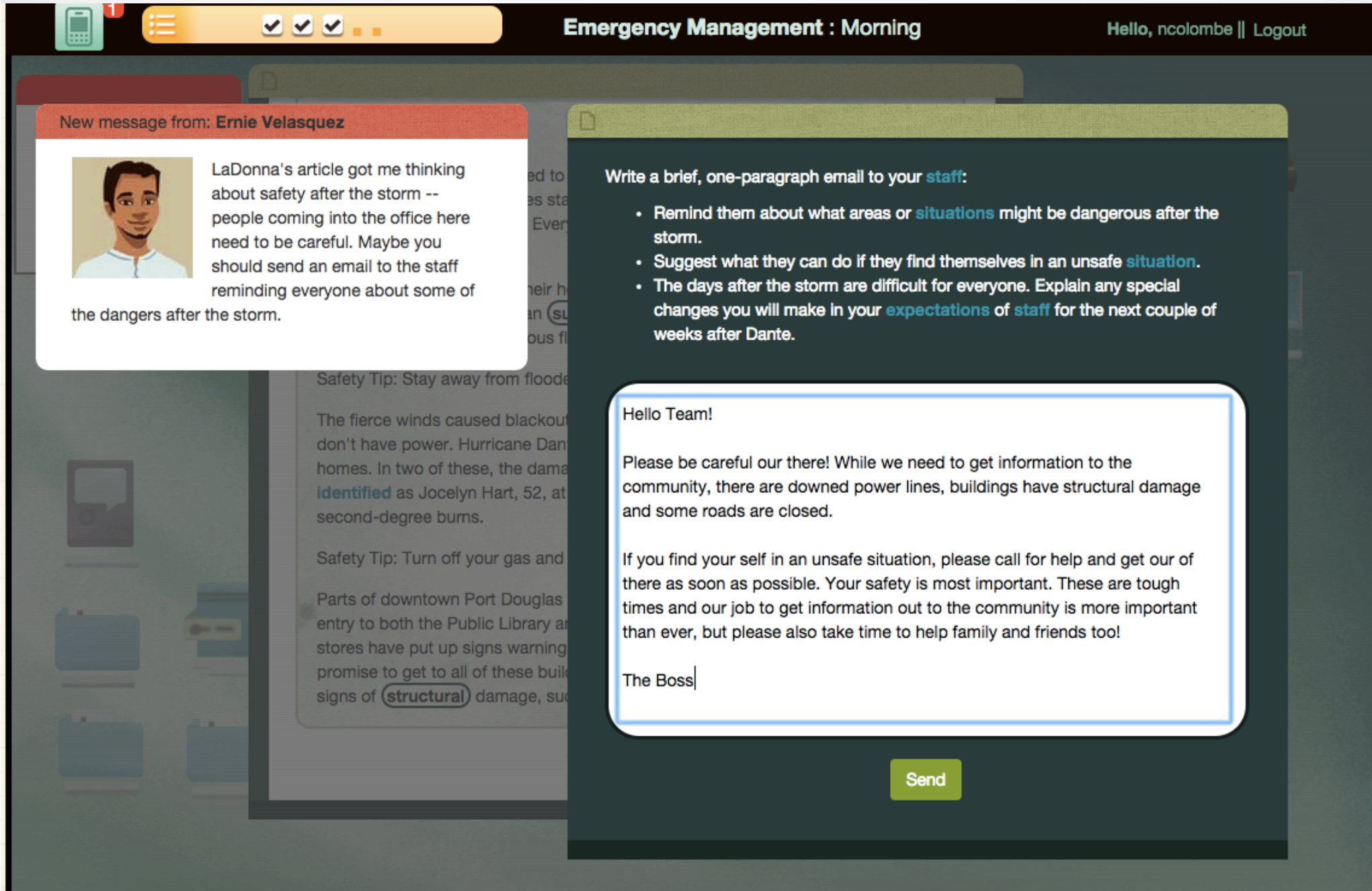
**root:** n. part of a plant that grows in the soil

**barrier:** n. something put up to block the way

**engulf:** v. to completely cover something



# Quick Write = reading and reflection



The image shows a mobile application interface for "Emergency Management : Morning". At the top, there is a dark header bar with a notification icon (a phone with a red '1'), a menu icon, and three status icons (two checkmarks and two squares). The header also displays the title "Emergency Management : Morning" and the user's name "Hello, ncolombe || Logout".

Below the header, there is a red notification bubble that says "New message from: Ernie Velasquez". To the left of the message is a small profile picture of a man. The message text reads: "LaDonna's article got me thinking about safety after the storm -- people coming into the office here need to be careful. Maybe you should send an email to the staff reminding everyone about some of the dangers after the storm."

In the background, there is a blurred article titled "Safety Tip: Stay away from flooded areas". The article text includes: "The fierce winds caused blackout don't have power. Hurricane Dante hit our homes. In two of these, the damage was identified as Jocelyn Hart, 52, at second-degree burns." and "Safety Tip: Turn off your gas and..."

Overlaid on the right side of the screen is a dark green "Quick Write" box. It contains the instruction: "Write a brief, one-paragraph email to your staff:". Below this is a bulleted list of prompts: "Remind them about what areas or situations might be dangerous after the storm.", "Suggest what they can do if they find themselves in an unsafe situation.", and "The days after the storm are difficult for everyone. Explain any special changes you will make in your expectations of staff for the next couple of weeks after Dante." Below the list is a text input area with a blue border. The text inside reads: "Hello Team! Please be careful our there! While we need to get information to the community, there are downed power lines, buildings have structural damage and some roads are closed. If you find your self in an unsafe situation, please call for help and get our of there as soon as possible. Your safety is most important. These are tough times and our job to get information out to the community is more important than ever, but please also take time to help family and friends too! The Boss|". At the bottom right of the box is a green "Send" button.



# Teacher Dashboards – class progress

## Class Progress Report

Miss Crabtree



Started



Completed



Online Now

Choose Class



Grade 6

### After the Storm

#### Day One



#### Man Down



#### The Whole Truth



#### The Save



#### All In



Billie Harrison

Main



Return



Kit Marathon

Main



Return



Mary Smith

Main



Return



Donald Jones

Main



Return



# Teacher Dashboards – Student Activity Report

D, Kaylah



Class 01 (Period: SS 14 / Grade: 8)



After The Storm

Emergency Management				Untold Stories				Unbiased Reporting				Financial Crisis				Staffing Up			
✓	☁	✓	☁	✓	☁	✓	☁	✓	☁	✓	☁	✓	☁	✓	☁	✓	☁	✓	☁

Main

Score  
60

Time  
3:08

[Return to Main](#)

Score  
100

Time  
10:16

[Quick Write](#)

✓ Support 1 (Score: 100)

✗ Support 2

✗ Challenge

☆ Answer Key

THE DAILY  
BYTE

## One Day After Hurricane Dante: Safety First

Our community can breathe one big sigh of relief that Hurricane Dante is over. The greatest danger may be behind us, but there are still plenty of safety concerns in the **aftermath** of the storm.

This storm was so extreme for our area that on Monday everyone living within a quarter mile of a shore had to **evacuate**, **grabbing** only what they could in the minutes before they left.

Mayor Young made it clear that following her instructions was **optional**, yet there were those who seemed to think they had a choice about leaving. On Lower Broadway, five families stayed in their homes even though their neighbors told them they had to leave. Every one of those families had to be rescued after the storm hit.

The families that stayed in their homes probably didn't realize that in a hurricane as strong as Dante, rivers can **surge** 10 feet or more. When the water level is significantly raised, dangerous floods can occur.



# Teacher Dashboards – Class Performance

**Class 01 (Period: SS 14 / Grade: 8) ▴**

**CCSS.ELA-LITERACY.RI.6.7 (Integration of Knowledge and Ideas)** 

Student	Score	
Class Average	73%	
A, Jalyn	75%	
A, Sarai	81%	
B, Jordan	78%	
B, Thabang	59%	
C, Zyasia	67%	
D, Kashobe	75%	
D, Kaylah	52%	

# Educator Resources to Support Instruction



Educator Guide Includes common core aligned:

- Pre-Game lessons to build background knowledge
- Pre and post game discussion questions
- Graphic organizers
- Source texts
- Rubrics
- Magazine Maker Project



# Three Options to Build Literacy and Leadership

## **Game UP!**

- Try After the Storm
- TSN-2
- One class period.

## **One Full Unit**

- Play one full unit of literacy learning game
- 3 class periods
- Prepare and extend lessons

## **30 Hour Course**

- Flexible game play
- wrap around materials
- Project based learning
- Clear alignment to ELA CCSS



# Play our Games on GameUP!

Play *The Sports Network 2* and *After the Storm* on GameUP



[www.brainpop.com/games/thesportsnetwork2/](http://www.brainpop.com/games/thesportsnetwork2/)



[www.brainpop.com/games/afterthestormdayone/](http://www.brainpop.com/games/afterthestormdayone/)



# Request a Free Trial

*Community in Crisis (grades 4-6)*  
*and After the Storm (grades 6-8)*



Go to

<http://www.classroominc.org/trial-request/>

- ✓ Access to play a full unit of our literacy learning games (3 class periods)
- ✓ Quickstart Guide
- ✓ Wrap-around off-game literacy lessons to reinforce and extend student learning

@classroominc  
@brainpop  
@institute of play  
#FETC #GBL



# Playful, Self-directed Learning with Games



The greatest sign of success for  
a teacher is to be able to say,

*“The children are now working  
as if I did not exist.”*

– Maria Montessori



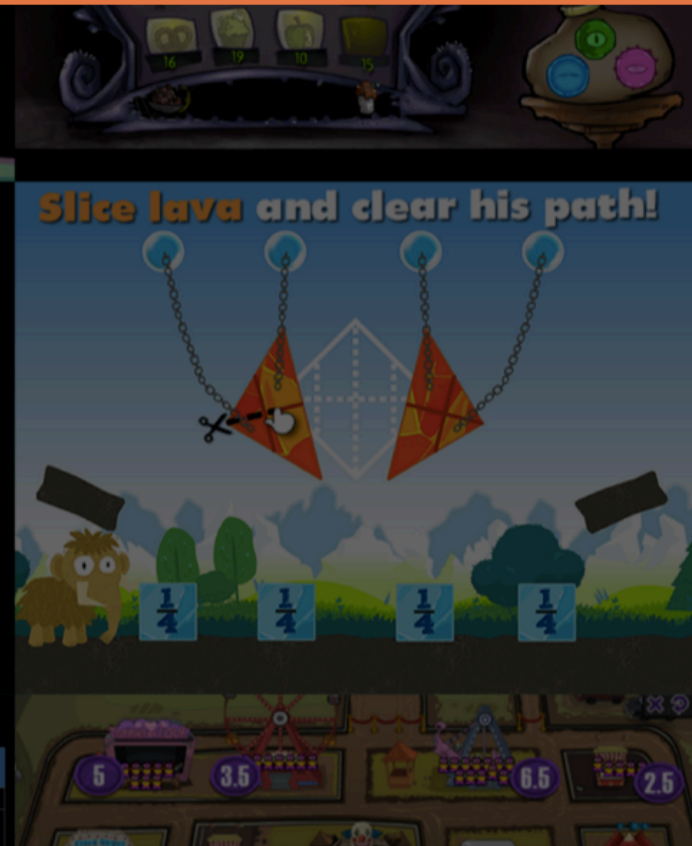
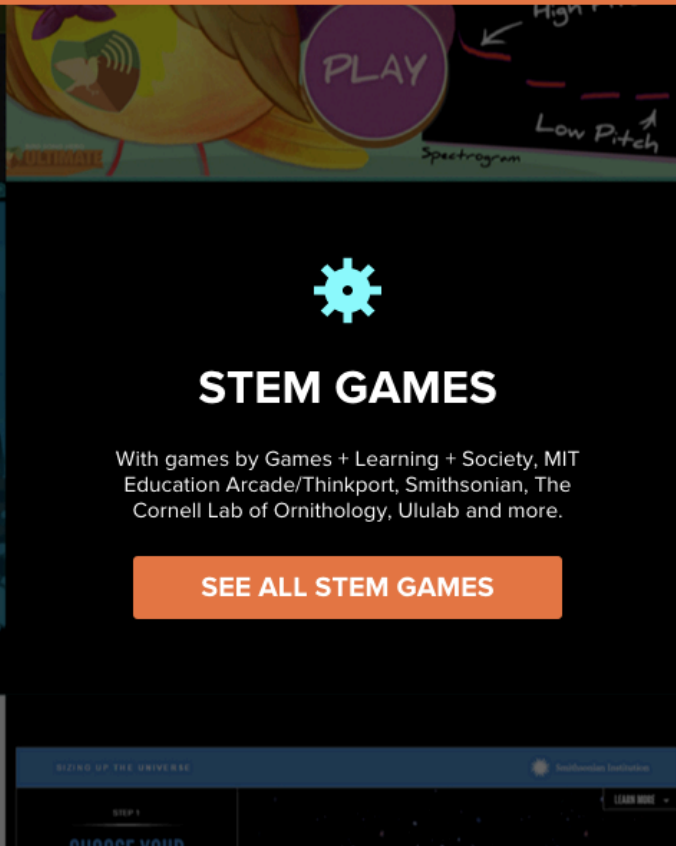
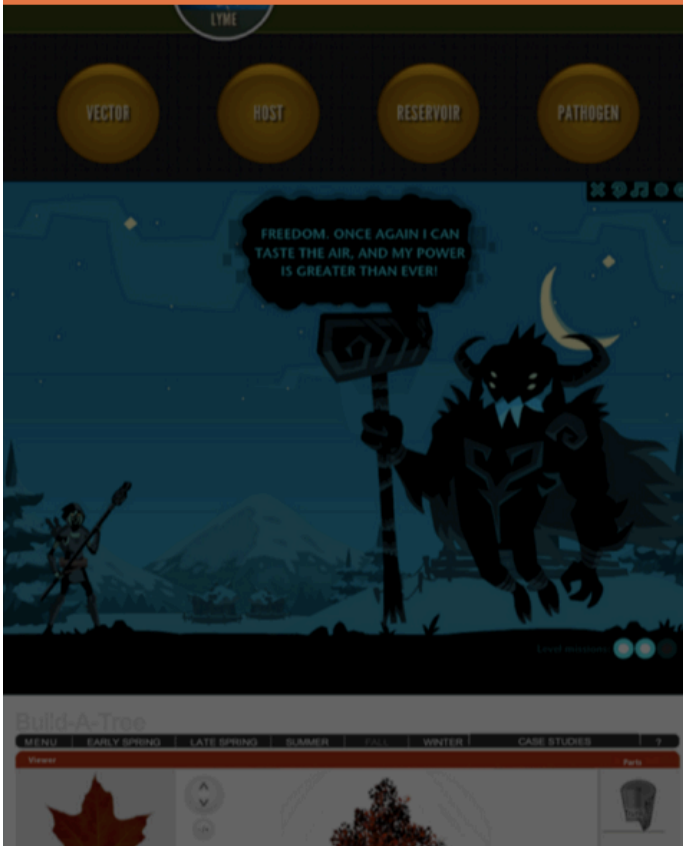




## STEM GAMES

With games by Games + Learning + Society, MIT Education Arcade/Thinkport, Smithsonian, The Cornell Lab of Ornithology, Ululab and more.

[SEE ALL STEM GAMES](#)



## What's GameUp?

GameUp is a vetted and always-expanding collection of cross-curricular digital learning games from leading game designers, paired with implementation materials. A Lesson Ideas page accompanies each game, with game guides; tips; tutorials; standards-aligned lesson plans, and assessment ideas. Select GameUp titles are enabled with our SnapThought tool, which encourages reflection in key moments in game play. Students can capture a screenshot of what they've done, make notes about it, and send it to teachers for feedback. GameUp targets upper elementary and middle school students, but we also offer GameUp for K-3 students on BrainPOP Jr., as well as a selection of games on BrainPOP ESL, our English language learning program.

OK



## GAMES BY COLLECTION



### PLAY ON YOUR TABLET



FLOWER POWER



SORTIFY: PARTS OF SPEECH



SORTIFY



SORTIFY: CURRENT  
ELECTRICITY

See all 88



### GAMES WITH SNAPTHOUGHT



CHRONOPTICON



GUTS AND BOLTS



THE SPORTS NETWORK 2



ADDITION BLOCKS

See all 100



### CIVICS GAMES



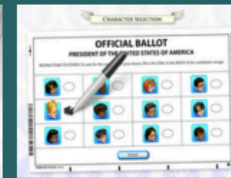
ARGUMENT WARS



BRANCHES OF POWER



COURT QUEST



EXECUTIVE COMMAND

See all 9

## MORE GAMES



### TECHNOLOGY



TYNKER: 15-BLOCK CHALLENGE



TYNKER: LOST IN SPACE



TYNKER: PUPPY ADVENTURE



TURTLE ACADEMY

See all 26



### MATH



PRIMARY KRYPTO



DEEP SEA DUEL



DROP ZONE



SQUARE OFF

See all 37



### BRAINPOP STAFF PICKS



SIMPLE MACHINES



CONSTRUCT-A-SAURUS



CITIZEN SCIENCE



GAME OVER GOPHER

See all 8

\*Tweet thoughts and questions during this session! #FETCGBL





## GAME FINDER



Science ▼

K-12 ▼

All times to play ▼



### BIRD SONG HERO

Be a Bird Song Hero! Amaze friends by naming which birds are singing. But can you face the Ultimate Challenge? This game is not optimized for Internet Explorer 9.



### BLOOD TYPING

Learn about blood types, and use your knowledge to save patients in urgent need of blood transfusions.



### BUILD A SOLAR SYSTEM

\*Tweet thoughts and questions during this session! #FETCGBL



## TEACH WITH GAMES

GET STARTED WITH THESE HELPFUL ARTICLES



### TEACHING WITH GAMES

Tips for incorporating game play into your curriculum



### 5 WAYS TO STRUCTURE GAME PLAY

BrainPOP's recommendations on approaches to structuring educational game play.



### GAME MAKING AND DESIGN TOOLS

Gallery of student-made games, and ways to inspire your students to design their own.



### ASSESSMENT IDEA

The Snapthought Tool: Reflection, Communication and Assessment



### GAMES FOR K-3



### GAMES FOR ESL

\*Tweet thoughts and questions during this session! #FETCGBL



LESSON PLANS +  
MATERIALS


TRAINING



TOOLS ON BRAINPOP



GAMES + TEACHING



HELP + FAQ



### Academic Standards

Select Standard



Select Subject



Select Grade



# The SnapThought Tool: Reflection, Communication and Assessment

Posted by agardnahl on March 3, 2014

+ Share



experience. Students can write summaries or comments associated with each individual image, and submit them to a teacher. Teachers can then view the SnapThoughts, write a response and send it back. Learn more by taking a look at the SnapThought™ in action in [this screencast](#).

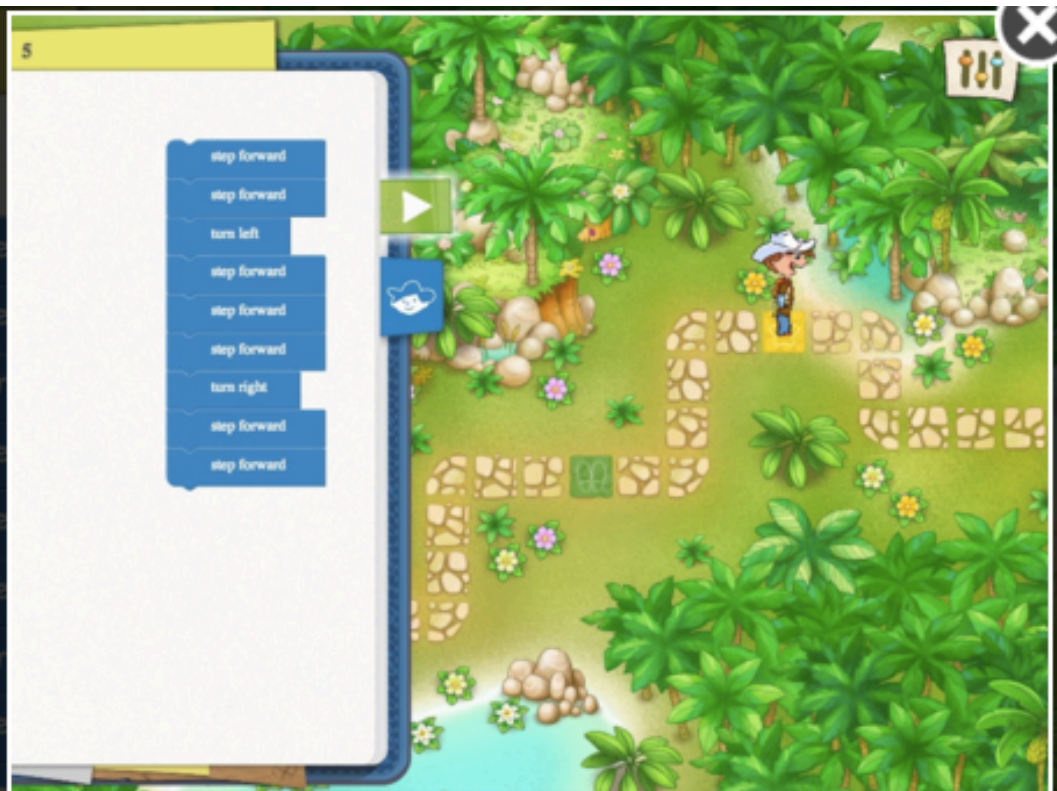
## Reflection

With intense curricular demands in every discipline, teachers too often feel the need to cover content,

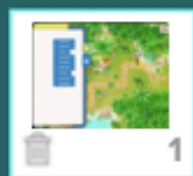
BrainPOP's unique **SnapThought** tool is fundamentally changing the game play experience on GameUp for students and teachers. In this article we will explain how optimal use of this tool provides opportunity for reflection, communication and assessment – an interwoven trifecta of pedagogical goals.

## What is the Snapthought Tool? On BrainPOP,

The SnapThought™ tool allows students to capture up to five snapshots of the screen at any moment during a game play



It took me several tries to get the number of steps forwards correct, but I created this line of code so far.



SUBMIT TO TEACHER

SNAPTHOUGHT®





# 3 WAYS TO KEEP IT FUN w/ GAMES

- **IN CLASS:** reserve class periods each term to just play and discover games on GameUp and other curated sites like Graphite or Edutopia to spark curiosity in new subjects
- **FLIPPED CLASSROOM:** BrainPOP movie & related game as homework before starting a unit (bonus points if students do a SnapThought reflection!)
- **ALTERNATIVE ASSESSMENT:** student groups find & teach a game to whole class as a way to wrap up a unit

# Games in the Classroom - Getting the Recipe Right

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- *Participants will have the tools to change the pedagogy or format of their class using game based principals and free resources.*

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Classroom, Inc.





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Classroom, Inc.



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