

## Playful Learning Part 1

The Unrealized Superpower Of Games

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LEARNING Games NETWORK



#### The power of game-based learning

# Let's play!



#### Game pin

Enter

## Games and Learning

## What is it?

## Definition:

"Game-based learning (GBL) is a form of learning where students may learn by trial and error, by roleplaying and by treating a certain topic not as 'content' but as a set of rules, or a system of choices and consequences."



# Why games?

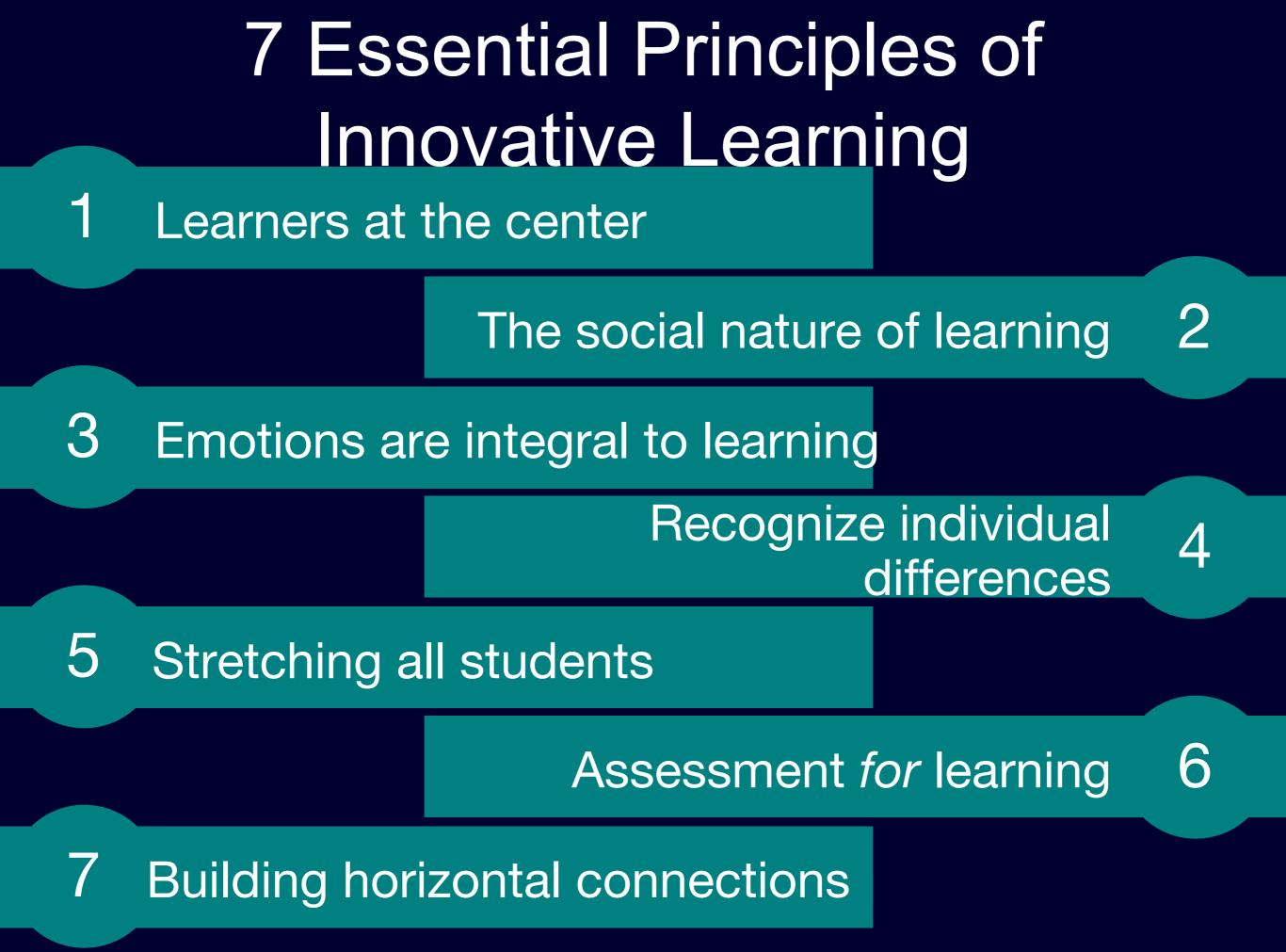
Games are ideal learning environments

As a planet, we spend 3 billion hours a week playing video and computer games.

#### Innovative Learning Environments Project



#### Centre for Educational Research and Innovation



#### Dr. James Paul Gee

• <u>Link</u> to ICE Symbaloo

#### Dr. James Paul Gee

• A test for completing Halo?

#### Civilization

- *Civilization* is very complex
- Civilopedia
- <u>Link</u> to ICE Symbaloo

### Civilization Chart Pg.1

#### Civilization

		Culture		
Science & Math		National & World Wonders	Arts, Lit., & Leisure	Religions (Belief Systems)
20 35 10				
		Civics		
Government	Religion	Economic	Labor	Legal
20 20 20				
		2		

## Civilization Chart Pg. 2

		People			
Artist	Religious	Merchant	Scier	Scientist	
			\$2 2		
		People	2		
Military	Engin		Leader	1	
winitary	Engir	leer	Leader		
		5	-		
	*	Geography	*	*	
Terrain	Resources		Climat		

#### Example (Lifehacker Article)

 Role-Playing Games Dungeons and Dragons Playing Cultivates Creativity & Storytelling Level Up Social Skills Teamwork and Cooperation Problem Solving Playing is Fun

#### PBS Idea Channel

- Can Dungeons & Dragons Make You A Confident & Successful Person?
- <u>Link</u> to ICE Symbaloo

#### Example (2machines Article)

•Minecraft

- Open-Ended Sandbox
- Creativity
- Social Skills
- Exploration
- Teamwork and Cooperation
- Problem Solving
- •Playing is Fun

### Minecraft Example

Roman City

• <u>Link</u> to ICE Symbaloo

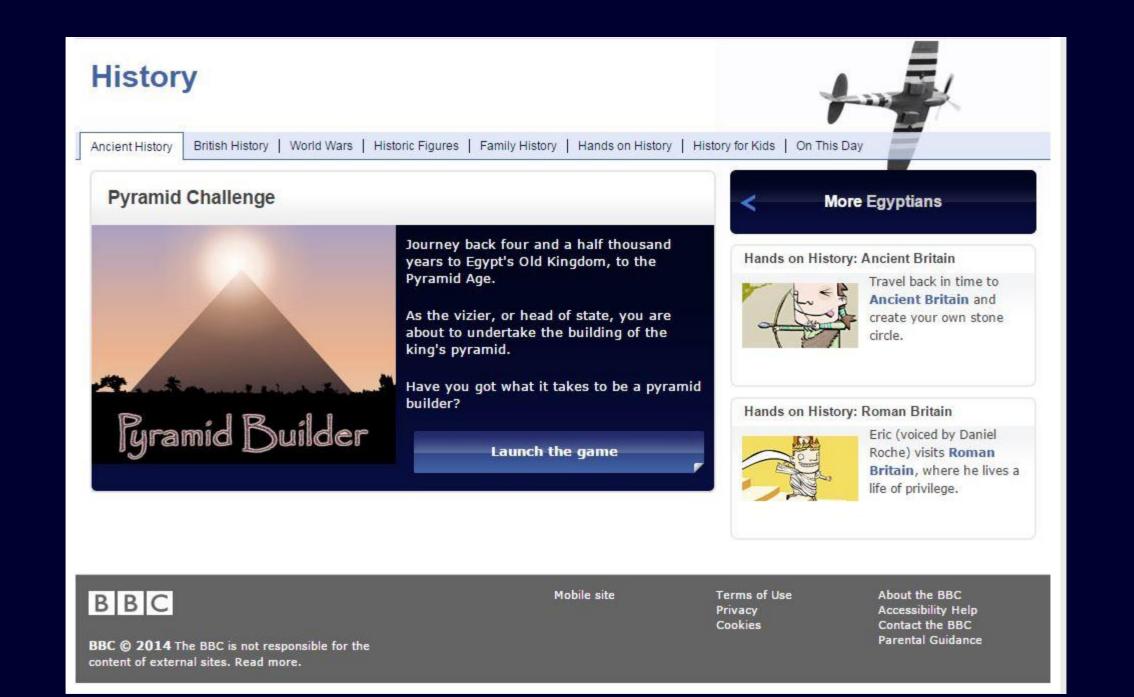




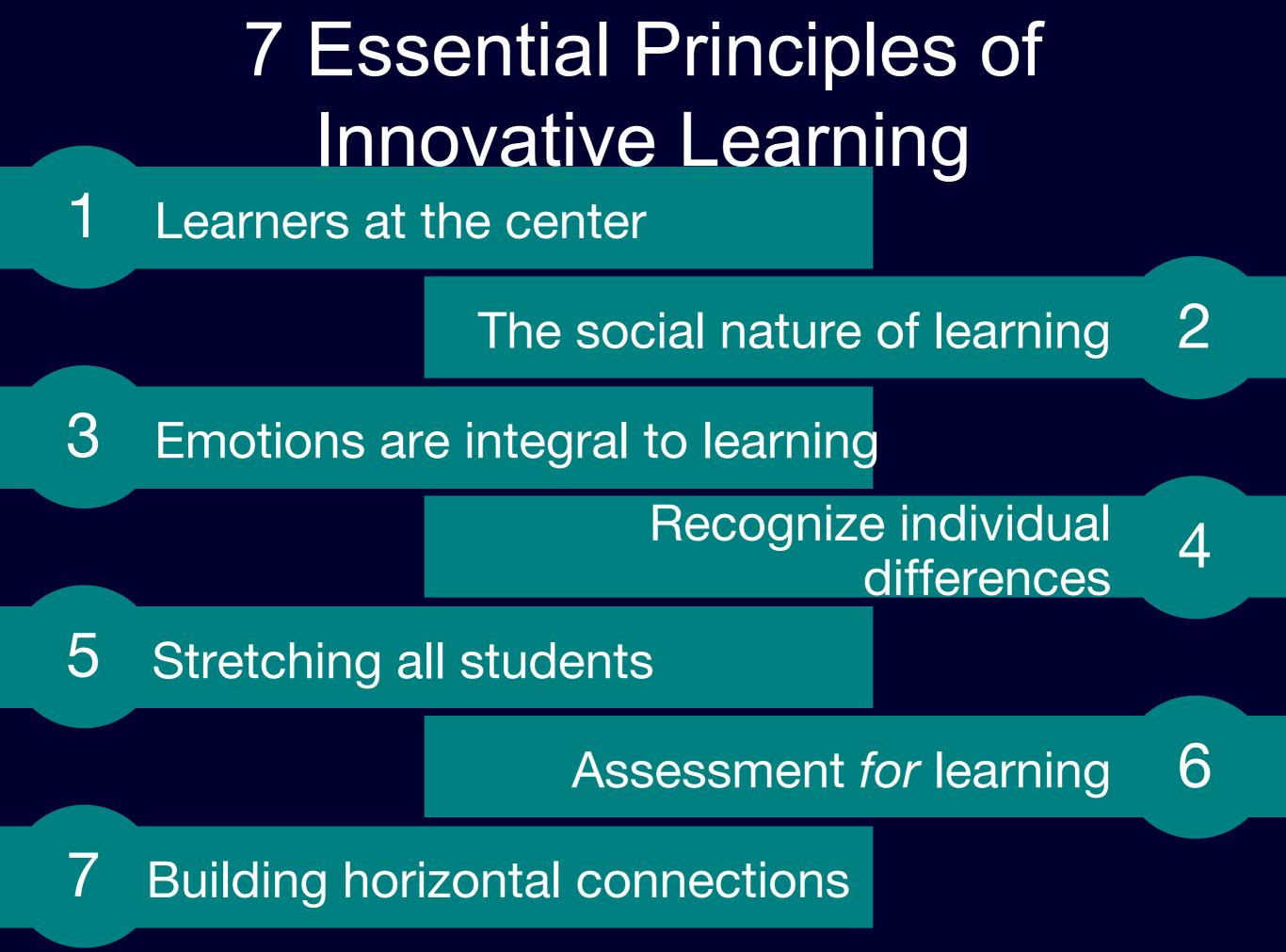




# Let's play.



#### **Pyramid Challenge** simulation



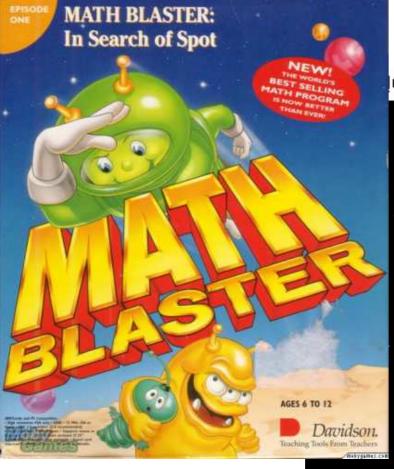


## COTS (Commercial Off-The-Shelf)Educational

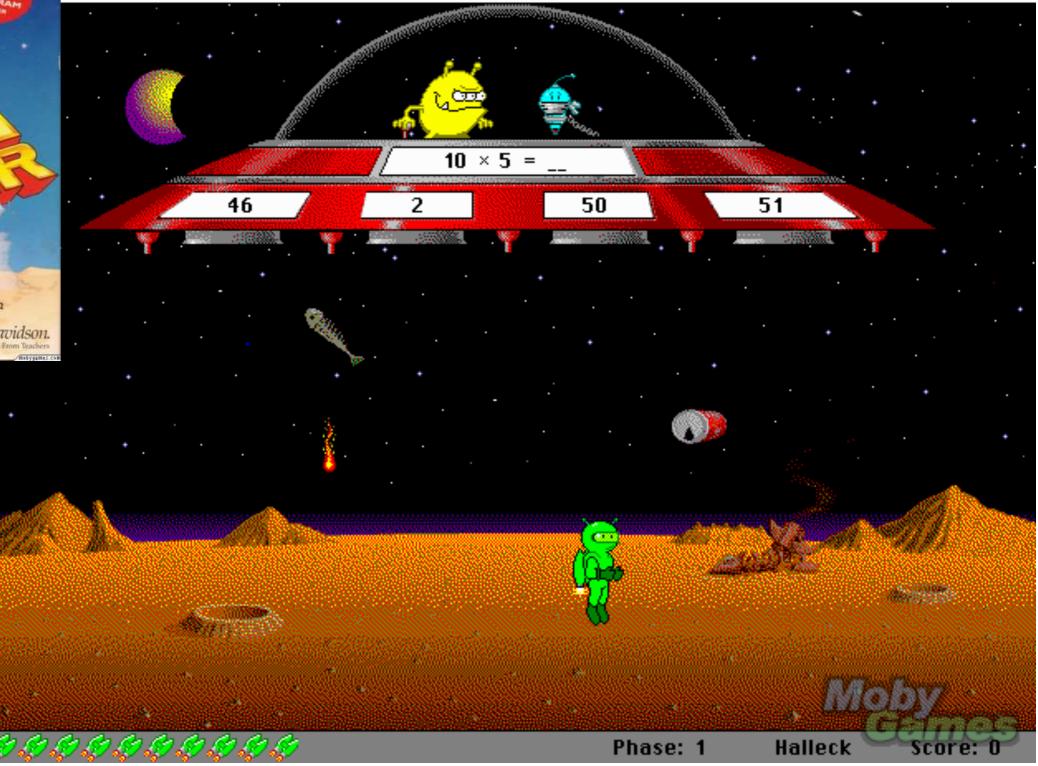
Long formShort form

## Short-Form Games

fit into a single class period
typically focus on a specific concept or skill



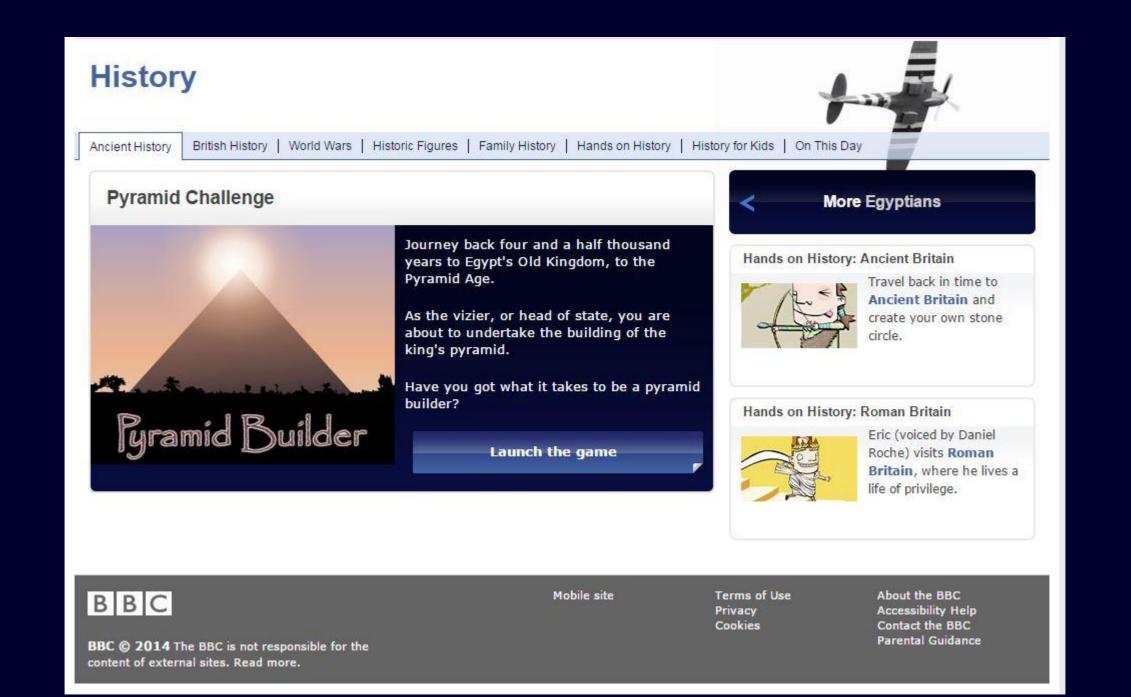
#### ctivity Options Subject Level Help



## drill & practice

#### Specific Math Facts

Sometimes short-form games can teach many goals



#### **Pyramid Challenge** simulation

#### Geography

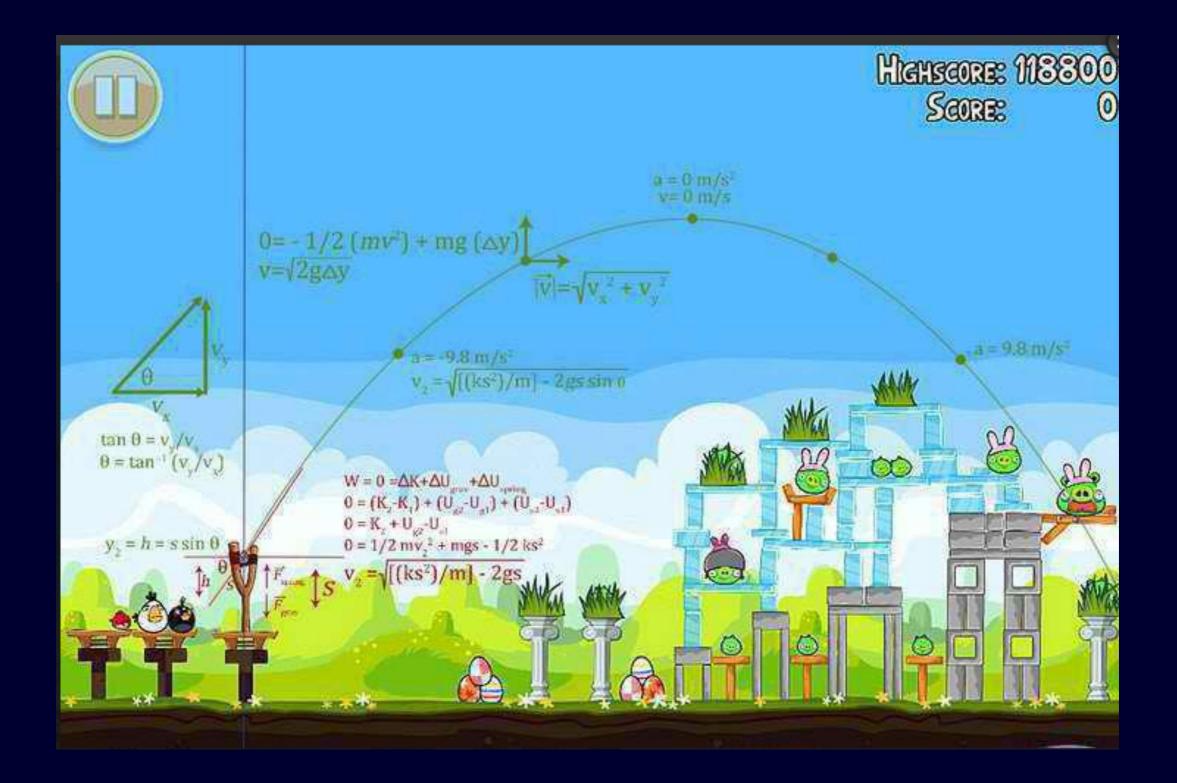
**Belief Systems** 

Science and Math

Social Classes

Resources





https://www.ptcusercommunity.com/docs/DOC-2368

Physics

Math

Strategic Thing and Planning

**Social Classes** 

Resources

## Long-Form Games

extend to multiple sessions or even weeks
focus on developing concepts and 21st century skills

performing better than lectures...

Long-form games have a better chance to teach many goals





SEE

DEPAR

Game Options Acme Dossiers



Moscow, with a population of about 9 million, is the largest city in the Soviet Union. A Moscow landmark is St. Basil's, a famous church on Red Square.

CRIME



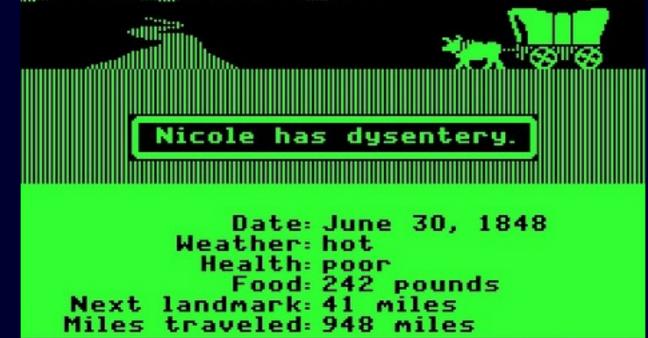
You may:

- 1. Travel the trail
- 2. Learn about the trail
- 3. See the Oregon Top Ten
- 4. Turn sound off

What is your choice?







History

Geography

Culture





### Civilization Chart Pg.1

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50 12		3 5 0 2	3	
		-		

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		10	-	-	
				-	
		2 0 2			
		Geography			
Terrain	Resources			Climate	
	1				
		6	8		

# ethical thinking







In *Quandary*, players must make difficult decisions in which there are no clear right or wrong answers but important consequences – to themselves, to others in the colony and to the planet Braxos. In their interactions with other settlers in the colony, players must consider facts, opinions and solutions, just like in real life.

#### **Problem Solving**

Research

#### Strategic Thing and Planning

**Decision Making** 

**Ethics** 



- Motivates students to participate in systemic changes that will create a more sustainable future (changing society not just personal behaviors).
- Prepares students to build effective coalitions
- Engages students in civil discourse/ communications that lead to more effective decisions
- Catalyzes collective actions.

- It advances students and encourages self-reflection and personal and development of their voice for solving societal challenges.
- Promotes creative visioning around sustainable futures.
- In SimCity the students also learn about:
- Cultures
- Cycles & Systems
- Design & Planning

- Ecosystem Health
- Energy
- Ethics
- Food Systems & Agriculture
- Future Studies & Visioning
- Human Impact & Environmental Footprint
- Health

- Lifestyles & Consumption
- Natural Resources
- Pollution & Waste
- Social & Environmental & Well-being
- Climate Change
- Sustainability Concepts & Practices
- Water & Watersheds

# What are the obstacles?

#### •Testing

#### Federal and State initiatives

#### Technology

More students and less resources

More to do and less time

# beta. playful learning .com

@playfullearn

#### edgamer.edreach.us @EdGamer

