

GAMES & GAME-LIKE LEARNING: PEDAGOGICAL STRATEGIES



**Game
Experience**



**Game-like
Experience**



**Gamified
Experience**





Game Experience

A teacher creates or uses a game to support students in learning the concepts associated with probability.

1/4



Digital Games



Game Experience

A teacher creates or uses a game to support students in learning the concepts associated with probability.



Analog Games

LET'S PLAY!

**Game EXPERIENCE
in action.**



Remember Me?

1. Draw a triangle
2. Draw some circles
3. Draw filled-in circles inside
4. Above each, draw an upside - down V
5. Above, draw a bunch of straight lines
6. Draw a rectangle below the triangle



Remember me?

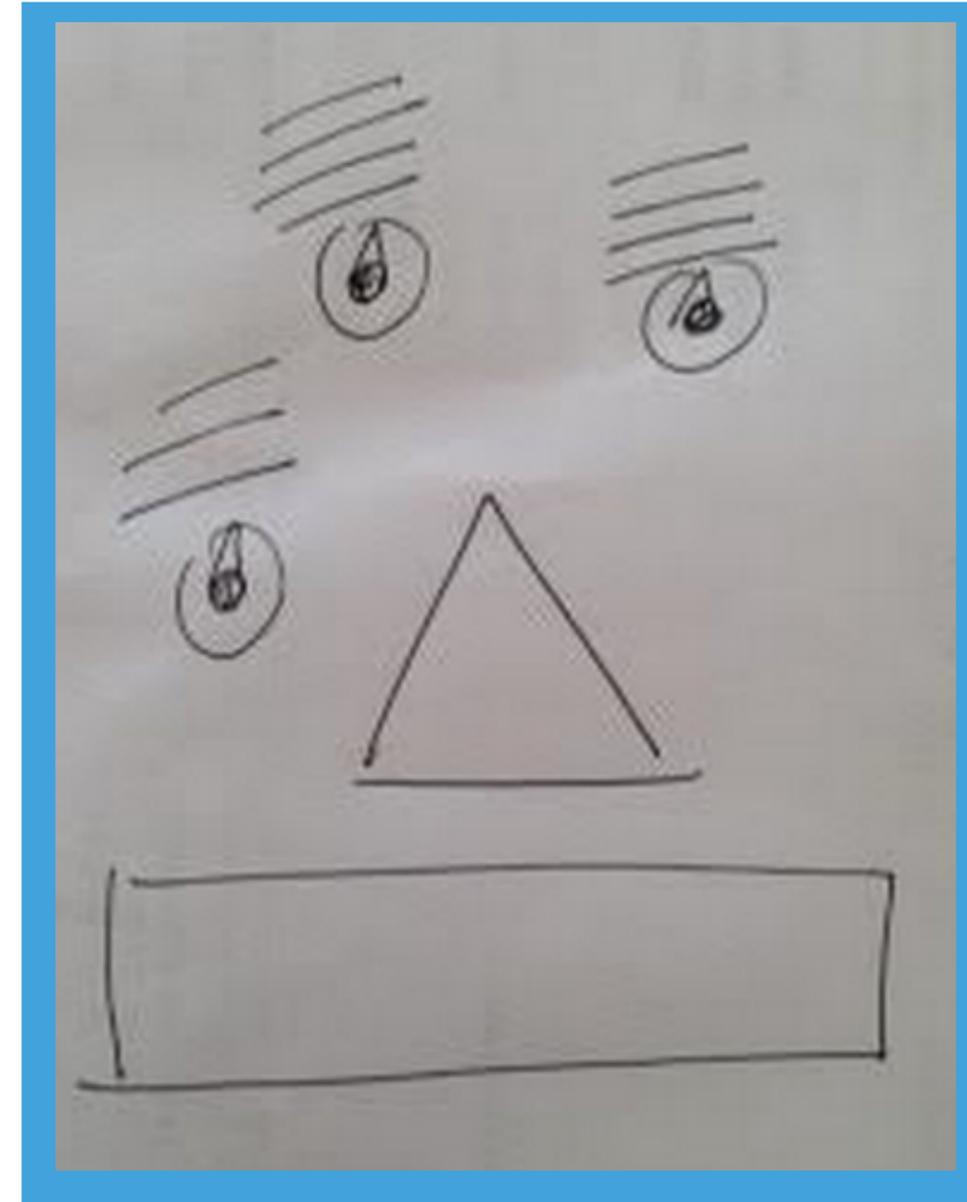
1. Draw a triangle
2. Draw some circles
3. Draw filled-in circles inside
4. Above each, draw an upside - down V
5. Above, draw a bunch of straight lines
6. Draw a rectangle below the triangle

**THINGS TO
THINK
ABOUT**

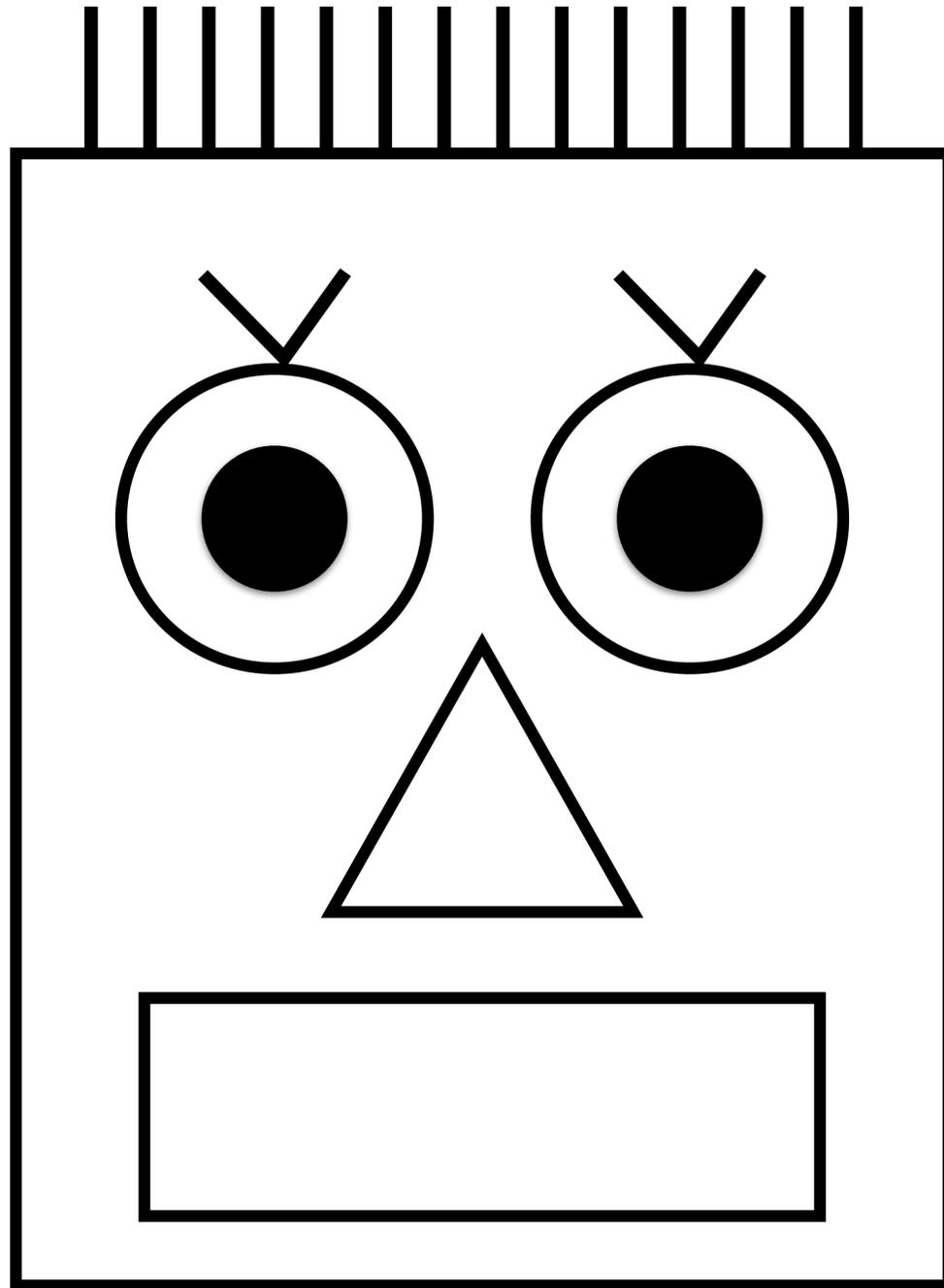
▶ *What made these instructions ambiguous?*

▶ *Why might you ask students to do something like this?*

Is this what you drew?



PICTURE TALK

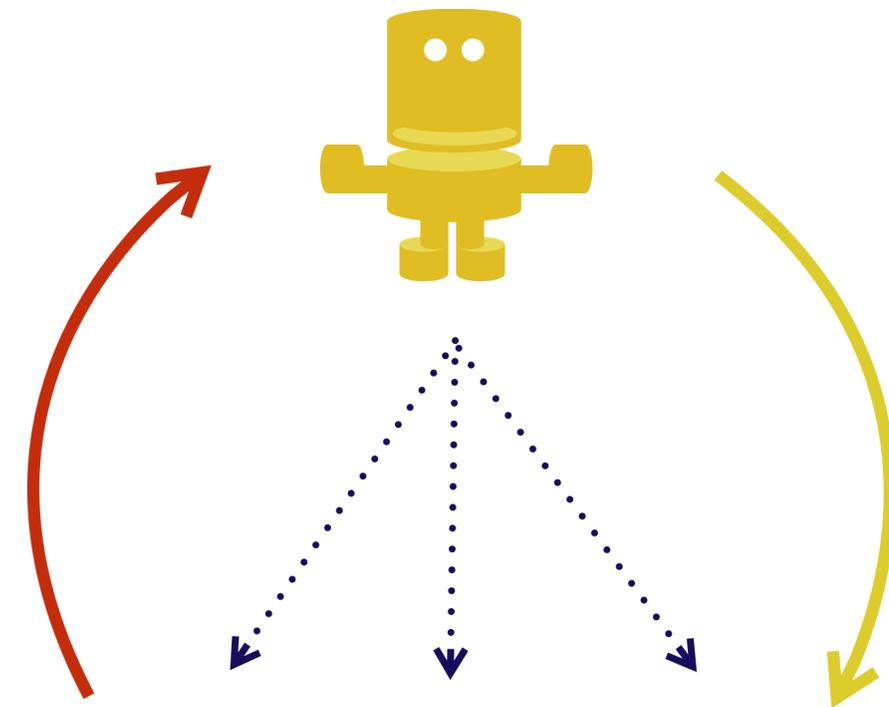


PICTURE TALK

Rules:

- The describer picks a card.
- S/he may use **any** words to instruct the copiers how to draw the picture.
- They **CANNOT** say what the card looks like.
- The copiers are not allowed to speak.
- When all copiers are finished, the describer reveals the original drawing and copiers reveal what they drew.

One describer



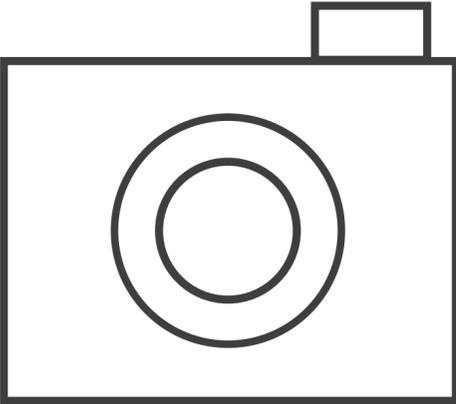
Copiers





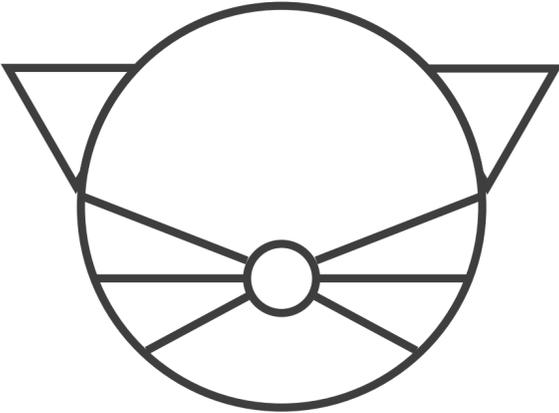
PICTURE TALK

CAMERA



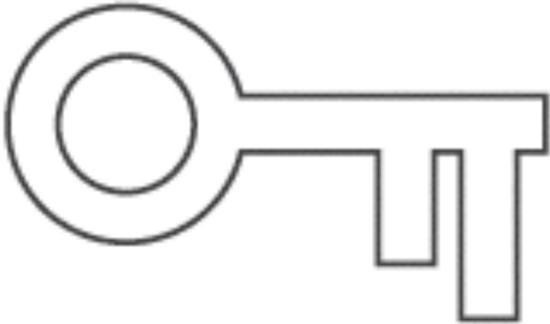
EASY

CAT



MEDIUM

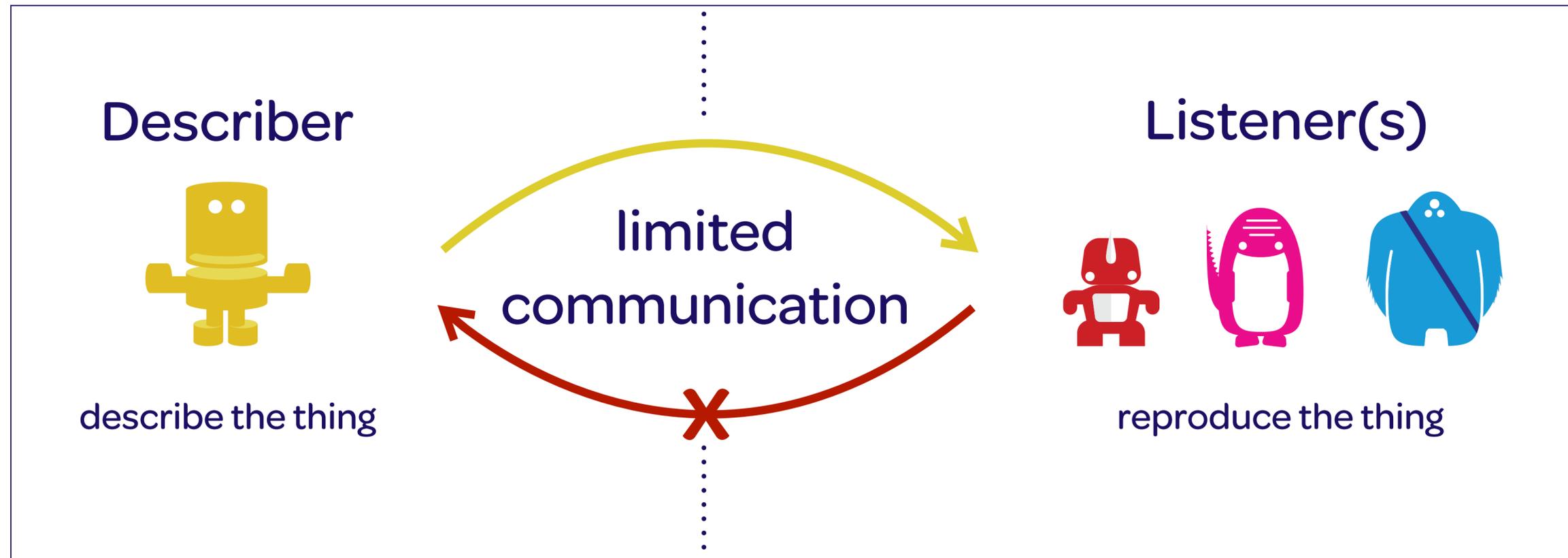
KEY



DIFFICULT



“_____TALK” STRUCTURE



Inherent Learning Goals

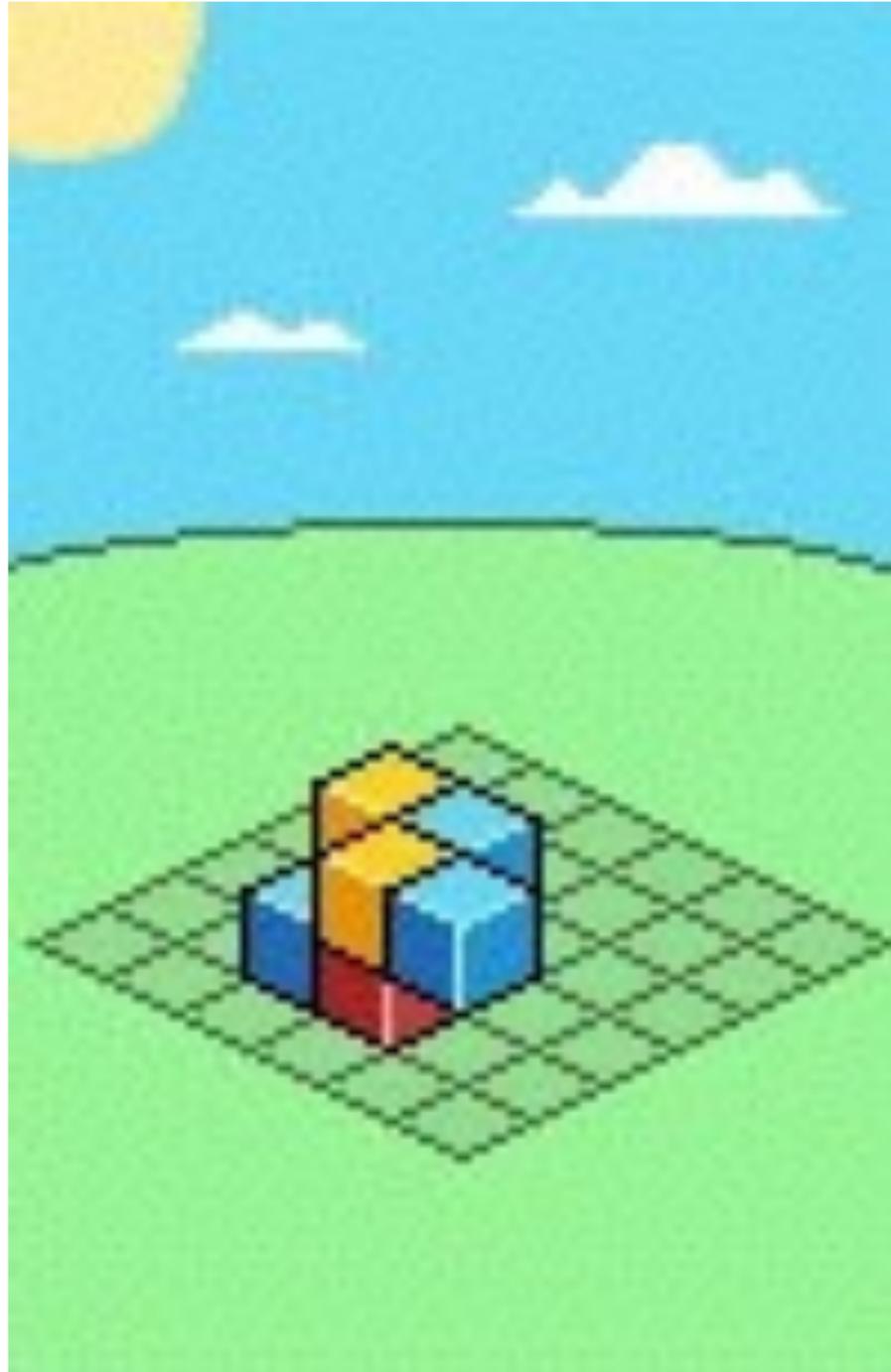
Communicating clearly (giving clear directions)

Listening (following directions)

Empathy & Collaboration



PICTURE TALK MODIFICATIONS



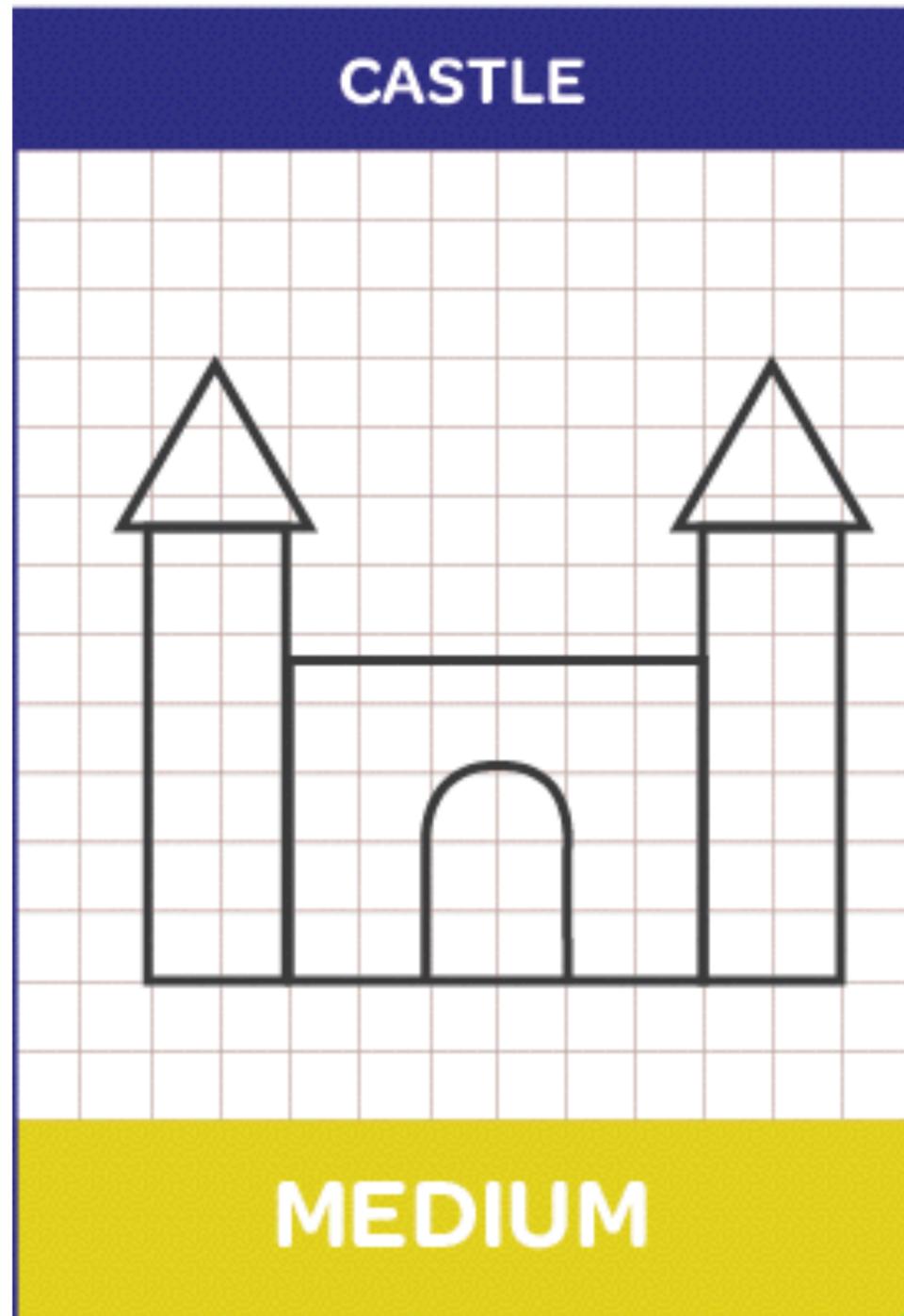
Block Talk

Learning Goals

- PEMDAS
- Communication



PICTURE TALK MODIFICATIONS



Graph Talk

Learning Goals

- X/Y axis
- Length/Width
- Diameter/Radius



PICTURE TALK MODIFICATIONS

LEVEL 1

$$3 = x + 2$$

LEVEL 2

$$-7x = -49$$

LEVEL 3

$$4n + 2 = 18$$

LEVEL 4

$$n/7 - 2 = 0$$

Equation Talk

Learning Goals

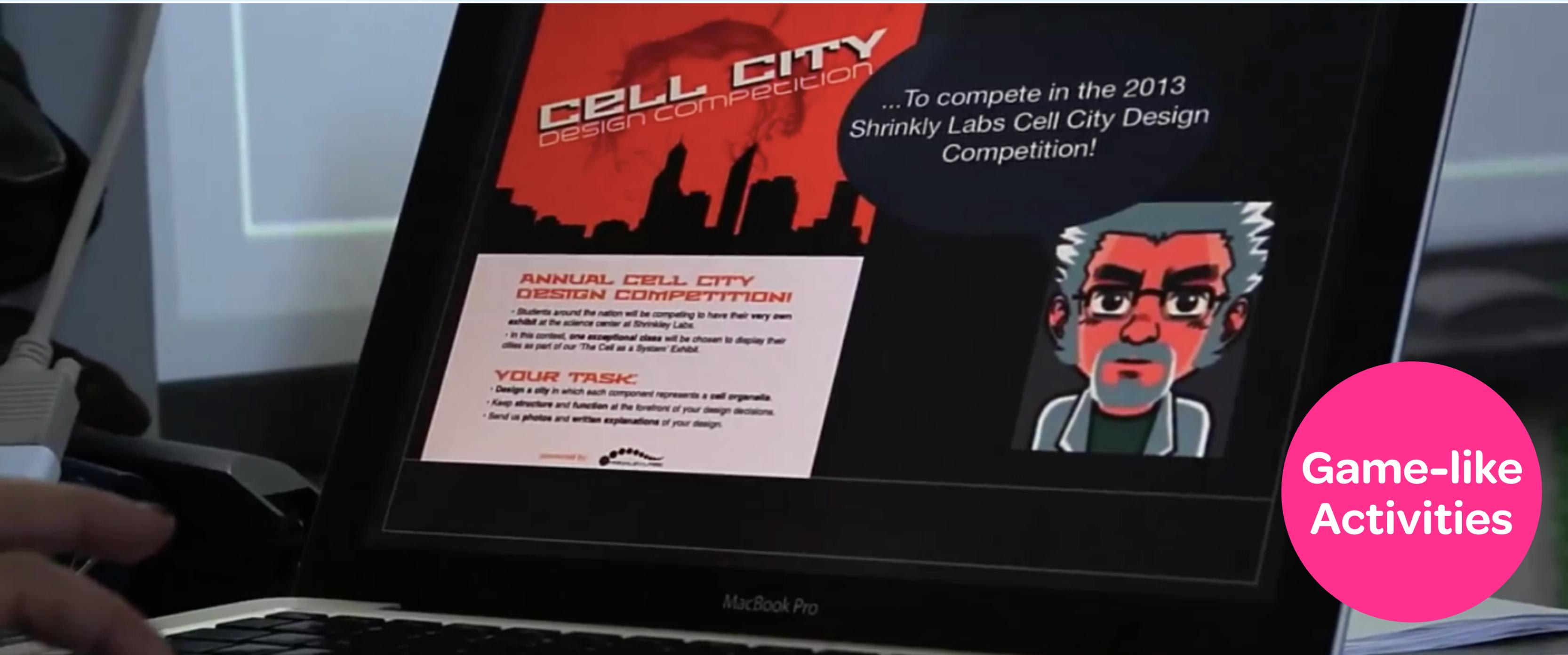
- Solving Equations
- Describing how to solve equations





Game-like Experience

A teacher creates a lesson that puts students in the role of doctor, in support of learning about the body system.



Game-like Activities





Game-like Experience

A teacher creates a lesson that puts students in the role of doctor, in support of learning about the body system.



Game-like Activities



Game-like Experience

A teacher creates a lesson that puts students in the role of doctor, in support of learning about the body system.



Game-like Activities



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Game-like Activities



Game-like Experience

A teacher creates a lesson that puts students in the role of doctor, in support of learning about the body system.



Game-like Activities



Gamified Experience

A teacher creates a point-based structure for classroom discussion.



Gamified Experience



Gamified Experience

A teacher creates a point-based structure for classroom discussion.





Gamified Experience

A teacher creates a point-based structure for classroom discussion.



Agree

+1

"I agree... and..." to build on an argument.



Disagree

+1

"I disagree because..." to refute an argument.



Question

+1

Ask a probing question to get more details about someone's argument.



Use Evidence

+2

Use a quote from the text to support an argument.



Devil's Advocate

+2

Pose a question or situation that is counter to a person's argument.



Connect

+2

Link a person's argument with another person's previous statement.

Gamified Experience

5 Secrets of Effective Game-based Learning



Think of the game as more than just the actual moment of play



Find collaborators to help you design, evaluate, and test tools



Build practices and structures around expectations for gameplay and technology use



Blend digital and non-digital to create rich learning experiences



Evaluate games for learning potential + engagement



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

LEARN MORE

- Resources for educators:

bit.ly/iopedes

- Visit us: www.instituteofplay.org

- Follow us: [@instituteofplay](https://twitter.com/instituteofplay)

Email us at pd@instituteofplay.org

Summer TeacherQuest