K–12 Game Ideas

Using Engageli's Whiteboard

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PreK–3rd Grades

Identify the Missing Element

Objective: Develop early literacy and storytelling skills.

Setup:

1. Draw a simple background scene on the whiteboard or insert an image file (for example, a park, forest, or city).

2. Have a list of story prompts (e.g., "A dog finds a ball," "An astronaut goes to space").

HOW TO PLAY

- Have students raise their hands and come to podium to participate in order.

- Students take turns adding a drawing, a note, or writing a word to build the story on the whiteboard.

- Encourage them to explain their additions aloud.

- Continue until the story is complete.

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Interactive Phonics Race

Objective: Teach letter recognition, phonics, or sight words.

Setup:

1. Divide the whiteboard into two or more lanes (like a racetrack).

2. Write letters, words, or phonics sounds along each lane.

3. Add fun visuals from image files like cars, animals, or rockets to represent players.

HOW TO PLAY

- Call out a letter, word, or sound.
- Students "race" by drawing their line or moving their object to the correct spot.
- The first student to complete their race wins!

Engagement Tip: Use fun themes like "Dinosaur Dash" or "Space Exploration" to align with student interests.

Identify the Missing Element

Objective: Students identify and complete a missing element in a sequence. 🟡 🔵 🟡 🔵 🟡 ▢

HOW TO PLAY

1 Explain the Rules: Show the displayed pattern and explain that it follows a rule or sequence. The challenge is to figure out what comes next in the blank space (▢).

2 Student Participation:
Ask students to raise their hands or write/draw their answer on the whiteboard.

– Example answers: blue circle: "🔵" or yellow circle: "🟡"

3 Feedback:
Acknowledge correct answers and encourage discussion:

– "Why do you think 🔵 is the answer?"

– "What happens if we add 🟡? Does it match the rest of the pattern?"

4 Continue with New Patterns:
Change the shapes or introduce more complex patterns: 🟩 🟥 🟩 🟥 🟩 🟩 ▢ ▢ (Introduce doubling or skipping rules.)

– 1, 2, 4, 8, 16, __, __ (Introduce numerical growth or multiplication.)

Color Sorting Challenge

Objective: Teach colors, shapes, and categorization.

Setup:

1. Draw several "buckets" or "bins" on the whiteboard, each labeled with a color or shape.

2. Have a list or items (e.g., apples, squares, crayons) ready.

HOW TO PLAY

- Call out or display an object.
- Students "sort" it by drawing it in the correct bucket or moving pre-drawn objects into place.
- Continue until all items are sorted.

Engagement Tip: Use seasonal themes (e.g., pumpkins for fall, snowflakes for winter).

Draw and Guess

Objective: Encourage creativity and vocabulary development.

Setup:

1. Create a list of words or pictures related to a topic (e.g., animals, shapes, or seasons).

2. Have these ready on a separate list for you to call out.

HOW TO PLAY

- One student draws the word or object on the whiteboard.

- The rest of the class guesses what it is.

- Rotate drawers to keep everyone involved.

Engagement Tip: Add a timer for each drawing to keep the game fast-paced.

Number Line Hop

Objective: Build number sense and basic math skills.

Setup:

1. Draw a large number line across the whiteboard (e.g., 1–20).

2. Add fun decorations like stepping stones, clouds, or lily pads from image files or drawings.

HOW TO PLAY

- Call out a math problem (e.g., 2 + 3).

- Students "hop" by drawing a path or marking the correct answer on the number line.

- For group play, divide students into teams and take turns.

Engagement Tip: Incorporate story elements, like a frog hopping across lily pads to find a pond.

Mystery Phrase (Hangman with a Twist)

Objective: Teach vocabulary, spelling, or concepts.

Setup:

1. Draw blank spaces for a word or phrase related to the topic you're teaching. _ _ _ _ _ _ _

2. Add a hint (e.g., "This is a type of energy").

HOW TO PLAY

- Students take turns guessing letters.
- If a student guesses incorrectly, draw part of a character (e.g., head, body, arms, etc.).
- The goal is to guess the word or phrase before the character is fully drawn.

Engagement Tip: Add bonus rounds with themed categories (e.g., famous inventors, book titles, or periodic elements.

Math Escape Room

Objective: Practice math skills with puzzles and challenges.

Setup:

1. Create a series of math challenges on the whiteboard (e.g., equations, fractions, word problems).

2. Each solved challenge gives a "clue" or unlocks the next puzzle.

3. Example: "Solve $3x + 2 = 17$ to unlock the key to the next door."

HOW TO PLAY

- Divide students into teams.
- Each team works together to solve the problems, progressing through the "escape room."

Engagement Tip: Add a story theme, such as escaping a haunted castle or unlocking a treasure chest.

Digital Pictionary

Objective: Build creativity and reinforce lesson concepts.

Setup:

1. Prepare a list of words or concepts related to your lesson (e.g., historical events, scientific terms, literary themes).

2. Use the whiteboard drawing tool for students to illustrate.

HOW TO PLAY

- One student draws while the others guess the word.
- Set a timer for added excitement.
- Award points for correct guesses.

Engagement Tip: Use themed rounds (e.g., "All words are related to space").

Quiz Show Game

Objective: Test knowledge in a fun, competitive format.

Setup:

1. Divide the whiteboard into categories (e.g., Math, Science, History, Literature).

2. Under each category, list point values for questions (like Jeopardy).

HOW TO PLAY

- Students choose a category and point value.

- Display the question; they must answer correctly to earn points.

- Example: "Science for 200: What is the process of water turning into vapor?".

💡 **Engagement Tip:** Let students "raise their hands" to answer first.

Sentence Scramble Race

Objective: Improve grammar, sentence structure, or writing skills.

Setup:

1. Write out scrambled sentences or phrases related to the subject on the whiteboard.

2. Example: "blue sky The is today." →
"The sky is blue today."

HOW TO PLAY

- Divide students into teams.
- Each team takes turns unscrambling a sentence.
- Points are awarded for correct answers.

Engagement Tip: Add time limits or bonus points for faster teams.

Map Challenge

Objective: Teach geography, history, or current events.

Setup:
1. Draw or upload a map to the whiteboard app.

2. Prepare clues about locations or events (e.g., "This country hosted the Olympics in 2021").

HOW TO PLAY

- Students take turns identifying the location based on clues.
- Mark the correct answer on the map.

Engagement Tip: Add layers of difficulty by focusing on regions, landmarks, or historical battles.

Whiteboard Story Building

Objective: Develop creativity and teamwork.

Setup:

1. Write a story starter on the whiteboard (e.g., "It was a dark and stormy night when…").

2. Leave space for students to contribute.

HOW TO PLAY

- Each student adds one sentence or phrase to the story.
- The story continues until everyone has contributed.

Engagement Tip: Set rules like "Each sentence must include a mystery element" or Add dialogue to your turn."

High School

Digital Escape Room

Objective: Solve subject–related puzzles to "escape" within a time limit.

HOW TO SET UP

1 **Create a Storyline:** Set up a scenario (e.g., "You're locked in a science lab and must solve equations to escape").

2 **Design Clues & Challenges:** Use different subject areas:

- **Math:** Solve an equation to get a key number.
- **Science:** Identify elements from their atomic numbers.
- **History:** Arrange events in chronological order.
- **Literature:** Match quotes to their authors.

3 **Lock & Timer:** Use the whiteboard to display the challenges, set a time, and students race against time.

Engagement Tip: Use hidden hints (e.g., QR codes, word scrambles) and allow collaboration.

Whiteboard Debate Game

Objective: Enhance students' **argumentation and critical thinking** skills.

HOW TO SET UP

1 **Create a Topic:** Pick a current event or subject–related debate (e.g., "Is AI more beneficial or harmful to society?"

2 **Create Two Columns:** Label "Pro" and "Con" on the whiteboard.

3 **Student Participation:** Assign students to teams, and each team writes key points under their stance.

4 **Rebuttal Phase:** Opposing teams counter–argue using whiteboard space.

💡 **Engagement Tip:** Use a "mystery box" where students pick a random debate topic.

Concept Mapping Challenge

Objective: Visually organize and connect complex concepts.

HOW TO SET UP

1 **Start with a Central Topic:**
(e.g., "Photosynthesis" for biology,
"Shakespearean Tragedies" for literature).

2 **Branch Out Key Ideas:** Students take
turns drawing and linking related terms
(e.g., "light energy → chlorophyll").

3 **Race Against Time:** Teams get points
for correctly linking concepts with a
time limit.

Engagement Tip: Use **color-coding**
(e.g., red for misconceptions, green
for key facts.

"Who Am I?" Challenge

Objective: Teach historical figures, scientists, authors, or literary characters.

HOW TO SET UP

1 **Write a set of clues on the whiteboard:** (e.g., "I wrote about the theory of relativity").

2 **Students guess in teams:** (each team gets one guess per round).

3 **Points for accuracy:** The **faster** they guess, the **more points** they get.

> **Engagement Tip:** Let students **create their own mystery figures** for classmates to guess!

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Digital Jeopardy

Objective: Test knowledge in a competitive format.

HOW TO SET UP

1 **Create a Jeopardy board on the whiteboard:**

- Add categories like **Math, Science, Literature, History, Pop Culture**.

- Assign point values (e.g., "History for 200 points").

2 **Students select and answer questions:**

- If they answer correctly, they **earn points**.

- If wrong, the next team **gets a chance**.

💡 **Engagement Tip:** Use a **daily double round** where teams can **wager points!**

Whiteboard Pictionary — Advanced Edition

Objective: Reinforce **vocabulary, literary terms, or scientific concepts**.

HOW TO SET UP

1. **Write terms on flashcards:** (e.g., "Osmosis" for biology, "Metaphor" for literature).

2. **One student draws, others guess.**

3. **Faster guesses = more points.**

Engagement Tip: Use categories like "**Hard Mode**" for abstract concepts (e.g., "Irony").

Mind Map Battle

Objective: Organize information into **categories and subcategories**.

HOW TO SET UP

1. **Choose a subject** (e.g., "The Industrial Revolution").

2. **Teams race to complete a mind map.**

3. **The team with the most accurate and detailed map wins.**

Engagement Tip: Use a **lightning round** where students must quickly **add connections**.

"Solve the Mystery" — Logic Puzzle Game

Objective: Apply **critical thinking and deduction** to solve a case.

HOW TO SET UP

1 **Create a crime scene story:** "A famous scientist went missing. Solve the case!"

2 **Provide clues:** Students must solve math problems, analyze a historical event, or answer physics questions to unlock more clues.

3 **Teams write theories on the whiteboard** until they find the answer.

Engagement Tip: Introduce **red herrings** (false leads) to make it more challenging.

Mathematical Code Breaker

Objective: Solve math–based riddles to **unlock a final answer**.

1. **Create a hidden message** using equations (e.g., Solve "x = 5" to get a letter in the answer).

2. **Teams solve each step to unlock the full answer.**

Engagement Tip: have students work backward by creating their own encrypted messages.

Explain it Like I'm Five

Objective: Simplify complex concepts for **peer teaching**.

HOW TO SET UP

1. **Assign advanced topics** (e.g., "Explain quantum mechanics").

2. **Students must draw and describe the concept** on the whiteboard.

3. **Challenge mode:** Others must guess the topic based on simple explanations.

Engagement Tip: Give points for **creativity** and **accuracy**.

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