

## How to Evaluate Digital Games!

Criteria	Questions to Ask
<b>Learning Complexity</b>	<ul style="list-style-type: none"><li>• Does the game require players to engage in high or low levels of thinking?</li><li>• Are there multiple entry and exit points?</li><li>• Are there many ways to solve or approach mastery at each level?</li><li>• Is content incorporated into the game mechanics, or is it treated as an add-on?</li></ul>
<b>Game Features</b>	<ul style="list-style-type: none"><li>• Does the game generally “make sense” for the targeted age level?</li><li>• Are the graphics visually appealing?</li><li>• Are there many ways to “Level up”?</li><li>• How does the game involve speed or time?</li><li>• What’s the game’s backstory or theme?</li></ul>
<b>Cultural Relevance</b>	<ul style="list-style-type: none"><li>• Does the game send cultural or gendered messages that may negatively affect student learning?</li><li>• Does the game send fixed mindset messages by its treatment of mistakes?</li><li>• Does the game contain options for personal preference?</li></ul>

### Math-Focused

- NCTM Illuminations: <https://illuminations.nctm.org/Games-Puzzles.aspx>
- K-2 Counting Kingdom <http://www.countingkingdomgame.com/>
- PreK-2: Critter Corral <https://apps.apple.com/us/app/critter-corral/id584799950?ls=1>
- Math K-3: Zorbit’s Math <https://zorbitsmath.com/>
- Math 3-8: Cognition/Fog Stone Isle <https://fogstoneisle.com/>
- PreK-12: DragonBox <https://dragonbox.com/educators>
- Wuzzit Trouble: <https://www.brainquake.com/>
- BrainPop Math collection: <https://www.brainpop.com/games/game-finder/?subject=Math>

### Science-Focused

- Middle School NGSS Science: Tyto Online <https://www.tytoonline.com/>
- Science Game Center: <https://www.sciencegamecenter.org/games>
- Physics: Manipulating electric fields: <https://www.embodied-games.com/games/electric-field-series/miteys-electric-field/>
- Environmental science (nutrient depletion and systems): <https://fielddaylab.wisc.edu/play/lakeland/>

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- BrainPop Science collection: <https://www.brainpop.com/games/game-finder/?subject=Science>
- Ecological succession game: [https://biomanbio.com/HTML5GamesandLabs/EcoGames/succession\\_interactive.html](https://biomanbio.com/HTML5GamesandLabs/EcoGames/succession_interactive.html)
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**Computer Science, Engineering, and Robotics**

- Virtual Robotics Toolkit: <https://www.virtualroboticstoolkit.com/>
- To learn about engineering: <https://artsandculture.google.com/asset/video-game-time-engineers-engineering-the-past/SQGXVnT3L-H1Ag?hl=en>
- To learn about aeronautics: <https://www.kerbalspaceprogram.com/>

**More Subjects**

- iCivics: <https://www.icivics.org/>