

Core Skills Analysis

Mathematics

- Enhanced spatial awareness and understanding of balance and symmetry while playing Jenga.
- Developed strategic thinking and problem-solving skills by planning moves to avoid collapsing the tower.
- Applied basic mathematical concepts such as counting and comparing sizes of blocks to make decisions during the game.
- Improved estimation skills by predicting the stability of the tower based on the block movements.

Physics

- Learned about gravity and friction through observing how the blocks interact and fall when the tower collapses.
- Explored the concepts of force and stability when removing blocks and maintaining the equilibrium of the structure.
- Understood the principles of center of mass and distribution of weight to keep the tower upright.
- Experimented with different strategies to understand the impact of energy transfer within the Jenga tower.

Engineering

- Practiced structural engineering concepts by building a stable tower using the Jenga blocks.
- Studied the effects of load distribution and balance on the overall stability of the structure.
- Learned about material strength and durability through the manipulation and stacking of the wooden blocks.
- Explored architectural design principles through trial and error in constructing the Jenga tower.

Tips

For continued development related to Jenga, encourage students to experiment with variations of the game like playing in teams to enhance collaboration skills, or introducing time limits for quick decision-making. Additionally, challenge students to create their own Jenga-inspired structures using different materials, fostering creativity and innovative thinking in design and construction.

Book Recommendations

- [Jenga Boom](#) by Hasbro Gaming: A fun twist on the classic Jenga game with a timer component, adding excitement and urgency to the gameplay.
- [Structural Engineering for Kids](#) by Jolene Roehlkepartain: Engaging activities and experiments that teach children about the basics of structural engineering in a hands-on and entertaining way.
- [The Physics of Superheroes](#) by James Kakalios: Explores the scientific principles behind superhero abilities, making complex physics concepts accessible and enjoyable for all ages.