STEAM Party Pack



Mid-Valley STEM-CTE HUB

www.midvalleystem.org midvalleystemctehub@linnbenton.edu Linn-Benton Community College Albany Campus - CC-212



STEAM Party Pack

The STEAM Party Pack is a versatile collection of games and puzzles designed to engage students in strategic thinking, problem-solving, and teamwork. Featuring large foam dice, dominoes, brain teasers, and interactive games like Shut the Box and Crime Scene, this set fosters mathematical reasoning, logic, and storytelling skills. Ideal for classrooms and group activities, it encourages creativity, collaboration, and critical thinking through fun, hands-on play.



Grade Level Group Size Time Duration

3rd - 12th grades Up to 20 students 15 - 120 minutes

Content of Kits

Components

- 35x Large foam dice
- 2 Tetra Tower games
- 1x Jumbling Tower game
- 1x Mexican Train dominoes game
- 1x Crime Scene game
- 2x Brain teaser puzzles
- 2x Cube mazes
- 3x Domino sets

- 1x Four-player Shut the Box game
- 1x Blink
- 2x Story Cubes dice sets
- 2x Uno Go! sets



Usage

Getting Started

- Introduce the Games Begin by explaining the rules and objectives of each game, highlighting how they connect to STEAM concepts like math, logic, and problem-solving.
- 2. Group Students Strategically Organize students into small groups and assign games based on skill level or learning objectives, ensuring everyone is engaged and challenged.
- 3. **Demonstrate and Model Play** Provide examples of gameplay, strategies, and problem-solving techniques to help students approach each activity with confidence.
- 4. Encourage Collaboration & Discussion Foster teamwork by having students share strategies, reflect on their reasoning, and discuss how different games build critical thinking and creativity.

Storage

Keep the games and their components stored securely in the kit's bin when not in use, preferably in a dry and organized space. Ensure all lids and boxes are secure to prevent losing or damaging critical game pieces.

Troubleshooting

Refer to the individual game instructions for troubleshooting guidance.



Activity Guide

Beginner

Dice Games & Basic Strategy

Introduce students to probability and strategic thinking through games like large foam dice activities and Shut the Box. These games build fundamental math skills such as counting, addition, and basic probability in an engaging way.

Intermediate

Pattern Recognition & Problem Solving

Use games like Tetra Tower, Cube Mazes, and Brain Teaser puzzles to develop spatial reasoning and logical thinking. Students will analyze patterns, plan moves strategically, and refine their problem-solving skills through hands-on challenges.

Advanced

Critical Thinking & Game Design

Encourage students to analyze more complex games like Mexican Train Dominoes or Crime Scene, where they must use logic, deduction, and strategic decision-making. As an advanced challenge, students can modify or create their own game rules, testing and refining their designs.

Extension Activities:

Game Tournament & Strategy Discussion

Organize a classroom tournament featuring multiple STEAM Party Pack games. After playing, students discuss and analyze different strategies, game mechanics, and the role of probability and critical thinking in their decisions.

Create-Your-Own STEAM Game

Challenge students to design their own STEAM-based game using components from the STEAM Party Pack. They can modify existing rules, combine elements from different games, or invent entirely new mechanics. After testing and refining their games, students present their creations to the class and explain the mathematical, strategic, or problem-solving concepts behind them.

Mid-Valley STEM-CTE HUB

Learning Extensions

STEAM Connections: Math - Engineering - Science

Learning Objectives:

- Develop critical thinking and problem-solving skills through logic-based games and puzzles.
- Enhance mathematical reasoning by engaging in number-based and strategy challenges.
- Foster teamwork and communication through collaborative and competitive gameplay.
- Strengthen fine motor skills and spatial awareness with hands-on activities.
- Encourage creativity and storytelling by using dice and card-based prompts.

Career Connections:

- Game Design & Development Builds foundational skills in logic, strategy, and rule creation relevant to designing board games and digital games.
- Mathematics & Data Analysis Reinforces numerical reasoning, probability, and pattern recognition, essential for careers in finance, analytics, and statistics.
- Education & Child Development Develops instructional and engagement techniques useful for careers in teaching and educational psychology.
- **Criminal Investigation & Forensics –** Enhances deductive reasoning and analytical thinking, key for roles in forensic science and law enforcement.
- **Creative Writing & Storytelling** Encourages narrative development and improvisation, supporting careers in writing, media, and content creation.

Essential Employability Skills:

- Critical thinking,
- Communication,
- Teamwork,
- Adaptability,
- Environmental awareness.





Resources and Accessibility

Safety Guidelines

- To avoid choking hazards, ensure students don't put small pieces in their mouths.
- Keep the play area clear of tripping hazards.

Accessibility

- Visual Accessibility Use large-print or braille cards, high-contrast dice and dominoes, and magnifying tools for better visibility.
- Motor Skill Support Provide cardholders, adaptive grips, alternative dice-rolling methods, and encourage teamwork to assist with handling pieces.
- Cognitive and Processing Support Offer step-by-step visual instructions, color-coded components, and extra processing time with clear, simple game rules.
- Sensory-Friendly Adaptations Provide a quiet game area, fidgetfriendly materials, and digital game alternatives for students with sensory sensitivities.
- Inclusive Participation Modify game rules, encourage cooperative play, and offer multiple ways to engage, such as verbalizing moves or using a whiteboard.

Library Catalog



Library Resources



Feedback

QR to feedback survey

