

Design a Playground

Objective(s): Students will work in pairs to design and build an all inclusive playground, where all children can play.

Activity that Involves problem-solving and strategic thinking:

- Understanding the concept of inclusivity in playground design
- Identifying and incorporating features for children with diverse abilities
- Collaborating effectively with a partner
- Using a design process

Standards addressed:

- CCSS.ELA-Literacy.SL.1.4: Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.
- CCSS.ELA-LITERACY.SL.K.5: Add drawings or other visual displays to descriptions as desired to provide additional detail.
- CCSS.ELA-LITERACY.W.K.7 - Participate in shared research and writing projects.
- NGSS.K-2-ETS1-2: Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.
- NGSS.K-2-ETS1-2: Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

Background knowledge needed:

- **Understanding of Playground Equipment:** Students should have a basic understanding of the different types of playground equipment commonly found in parks and play areas. This knowledge will help them in selecting appropriate equipment for their inclusive playground design.
- **Awareness of Diverse Abilities:** It would be helpful for students to have some awareness of the diverse abilities that children may have. This could include physical, sensory, or cognitive differences that may impact how children interact with playground equipment.
- **Creativity and Design Skills:** Students should have some basic skills in creativity and design to be able to come up with innovative and inclusive ideas for their playground. This could involve drawing, sketching, or using digital tools to visualize their designs.
- **Teamwork and Collaboration:** Since the project involves working in pairs, students should have some understanding of how to collaborate effectively with a partner. This includes skills in communication, sharing ideas, and resolving conflicts that may arise during the design process.

Materials: Construction paper, Poster board or cardboard Masking tape and plastic tape, scissors Paper Plates Craft sticks, toothpicks Coffee stirrers Rubber bands Pipe cleaners, wooden dowels, Legos or other building manipulatives

Prompts- Questions or statements to elicit engagement:

1. Questions for Brainstorming:
 - What are some features that you think every playground should have?
 - How can we make sure that children of all abilities can play together in our playground?
 - What equipment do you think is important for children with different needs?
2. Statements to Encourage Critical Thinking:
 - Let's think about how we can design our playground to be accessible or used by everyone to everyone.
 - Think about a child/friend with a physical disability. How can we make our playground welcoming and fun for them?
 - What materials do you think would be best for creating a safe and inclusive play environment?
3. Statements to Foster Collaboration:
 - Work together to combine your ideas and create a playground design that reflects both of your perspectives.
 - Share your thoughts with your partner and see how you can incorporate both of your ideas into the design.
 - Remember to listen to each other's suggestions and find ways to compromise when needed.

Vocabulary:

- **Inclusive:** Including or welcoming people of all abilities, backgrounds, and needs.
- **Accessibility:** The quality of being easy to reach, enter, or use for people with disabilities.
- **Equity:** The quality of being fair and impartial, ensuring that everyone has access to the same opportunities.
- **Diverse Abilities:** Refers to the different skills, strengths, and challenges that individuals may have.
- **Playground Equipment:** Structures and items found in playgrounds for children to play on or with.
- **Design Elements:** The visual, functional, and structural components that make up a playground.
- **Collaboration:** Working together with others to achieve a common goal.
- **Reflection:** Thinking deeply about one's own learning, experiences, and decisions.
- **Feedback:** Constructive comments or suggestions given to improve a design or idea.
- **Innovation:** Introducing new ideas, methods, or products to create something better or more effective.
- **Model:** A representation or prototype of a design that can be used for demonstration or testing.
- **Presentation:** Communicating and showcasing ideas, designs, or findings to an audience.

Reflection:

- How did your design choices address the needs of children with diverse abilities?
- What was the most challenging part of designing a playground for all children's needs?

- How can we improve/change your design to make it even better?

Extension/Adding more complexity:

1. Storytelling and Drawing: Have students create a story or draw a picture of a day at their inclusive playground. Encourage them to include details about how all children can play together and have fun.
2. Role-Playing: Use dramatic play and role-playing activities to help students understand the perspectives of children with diverse abilities. Set up scenarios where students can pretend to navigate a playground with different challenges.