

Battle Top

Applicable Age Group 5-6 year-old toddlers

- Activity Objectives**
- ☑ Explore gears and gear transmission through observation and hands-on practice.
 - ☑ Understand the impact and changes of gear transmission with different sizes on speed.
 - ☑ Be able to share and express opinions during the game.

Activity Description Organize a top battle game for children. They will first trigger the top manually, observe the secret to making the top spin fast and stably, inspire their creativity to gradually solve problems related to the top's rotation, and finally invent a launcher to make the top spin rapidly.

STEAM Literacy Development Indicators

Method Indicator	Observe the structure of a top through games	Practice gear transmission to design a model	Test and refine	Knowledge extension: Explore acceleration
Curiosity and Imagination		●		
Flexibility and Adaptability				
Verbal and Written Communication Skills				
Cross-boundary Cooperation and Exemplary Leadership				
Critical Thinking and Problem-solving Skills				●
Proactive and Pioneering Spirit			●	
Ability to Evaluate and Analyze Information	●			



Interactive Tips

- Randomly combine gears of different sizes during the game. Observe that the top's stability is closely related to its center of gravity—the closer the center of gravity is to the ground, the more stable the top.
- When using gear blocks, let children observe the characteristics of gears and demonstrate gear meshing. Explain that when one gear rotates, the other will rotate along with it.
- When demonstrating gear transmission, let children observe that the rotation directions of the two gears are opposite.

Find These Blocks



Build a Stable-Center-of-Gravity Top and a Launcher That Can Make the Top Spin

