

Electric Drill

Applicable Age Group 5-6 year-old toddlers

- Activity Objectives**
- ☑ Understand the function of bevel gears and master the method of changing their transmission direction.
 - ☑ Learn about the basic structure and working principle of electric drills.

Activity Description Through the acceleration building with bevel gears, guide children to deeply understand the principle of gear transmission—especially the function of bevel gears to achieve acceleration while changing the transmission direction. At the same time, combined with the building of electric drills, let children experience the fun of technological creation in hands-on practice and cultivate their exploration spirit and innovative thinking.



STEAM Literacy Development Indicators

Method Indicator	Situation-based introduction: Understand the structure of a drill	Build a drill using bevel gears	Test the operation of the mechanical structure	Organize games to explore functions
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

- Adult coaches should explain and demonstrate how to use bevel gears for acceleration building, and connect the motor to make the drill bit rotate. Encourage children to boldly try different building schemes and actively adjust and optimize the design when problems arise.
- During the building process, adult coaches can help children solve operational difficulties through demonstration and individual guidance.

