

Street Sweeper

Applicable Age Group 5-6 year-old toddlers

- Activity Objectives**
- ☑ Master the gear assembly method and be able to design and build simple mechanical models using the principle of gear transmission.
 - ☑ Understand the basic principles and functions of gear transmission, including parallel transmission and vertical transmission.

Activity Description Through this activity with children, they will not only master the basic principles of gear transmission and assembly methods, but also use these principles to design and build an environmentally friendly "street sweeper" model. Hands-on practice will exercise their observation, thinking and hands-on abilities.

STEAM Literacy Development Indicators

Method Indicator	Situation-based introduction: Understand the structure and function of a street sweeper	Build a street sweeper using gears	Test structural stability and smoothness	Knowledge extension: Creative transformation
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

- Introduce different types of gears, including spur gears and bevel gears, and demonstrate their different applications in transmission.
- During the building process, children need to think about how to make gears mesh with each other and how to adjust the transmission ratio to achieve the expected effect.
- Adult coaches can provide guidance and corrections nearby to ensure children can correctly assemble gears and build models.
- Encourage children to use their imagination and creativity during the building process, and try different design schemes and transmission methods.

