

Helicopter

Applicable Age Group 5-6 year-old toddlers

- Activity Objectives**
- ☑ Understand the basic structure and characteristics of helicopters, including the function of the upper propeller.
 - ☑ Understand the working principles of gears and pulleys in the helicopter model, especially how to simulate the helicopter's flight principle through gear meshing and pulley rotation.

Activity Description Learn about the main components of a helicopter (such as the fuselage, propeller, and tail fin) and their functions with children—focusing on the role of the propeller in providing lift and controlling the flight direction. At the same time, help them understand the basic principles of gears and pulleys in mechanical structures, laying the foundation for subsequent construction activities.

STEAM Literacy Development Indicators

Method Indicator	Situation-based introduction: Understand the structure of a helicopter	Build a helicopter using gears and pulleys	Test structural stability and smoothness	Further understand application scenarios
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

- Use simple demonstrations or animations to help children understand the principle of gear meshing and the function of pulleys, laying the foundation for subsequent construction activities.
- Adult coaches circulate among children to provide guidance, answer their questions, and help them solve problems encountered during the construction process.
- The connection of bevel gears, gears, pulleys, and belts is the key and difficult point of this activity. Adjust the meshing relationship of gears to ensure that the pulleys can rotate smoothly.

 Find These Blocks



 Creatively Design and Build a Helicopter Using Gears and Pulleys

