

铲车

☆ 孩 ☆ 亲 ☆

Success



实验目的

1. 初步认识铲车
2. 完成实验
3. 在科学实验中激发孩子学习学的兴趣



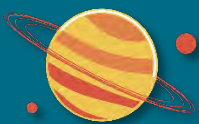
课堂导入



课堂小互动

★ 同学们知道图片中是什么吗？





那我们今天动手拼装一个有趣的小玩具吧！



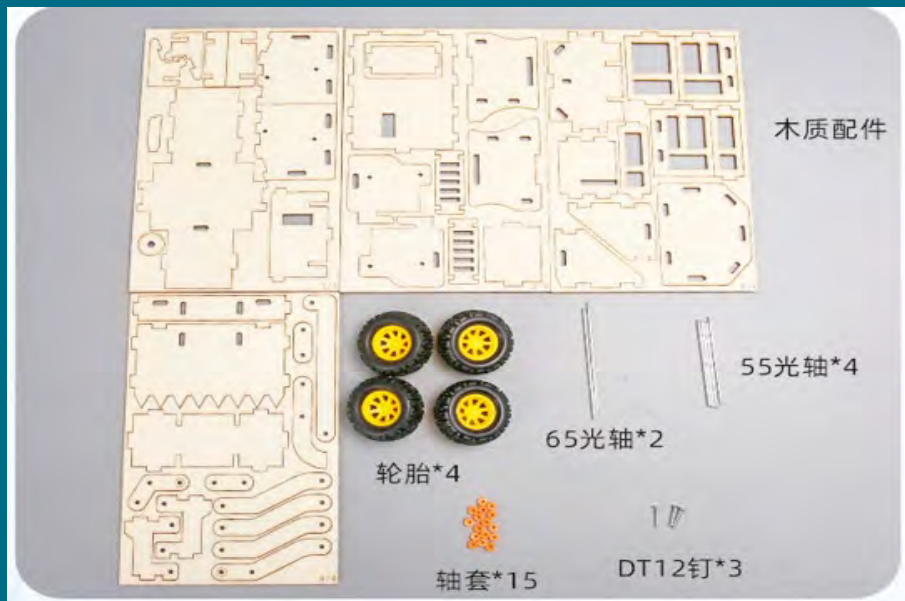
“铲车”

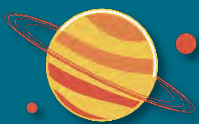
实验步骤

☆ 让 ☆ 我 ☆ □ ☆ □ ☆ □ ☆ 吧



认识材料

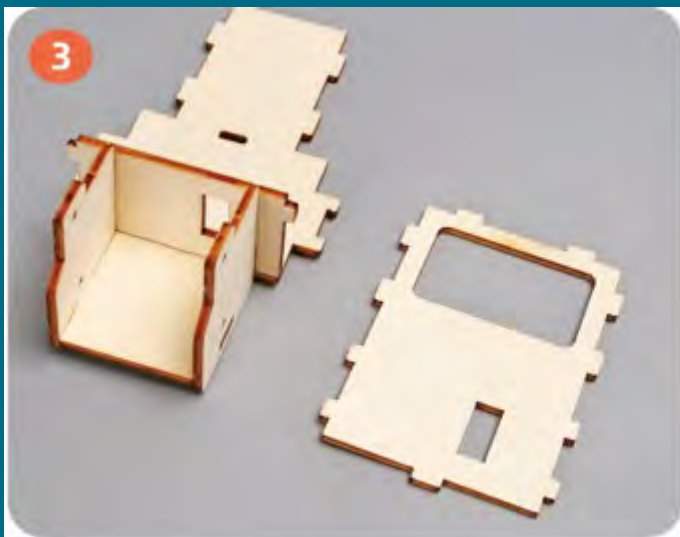
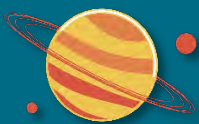




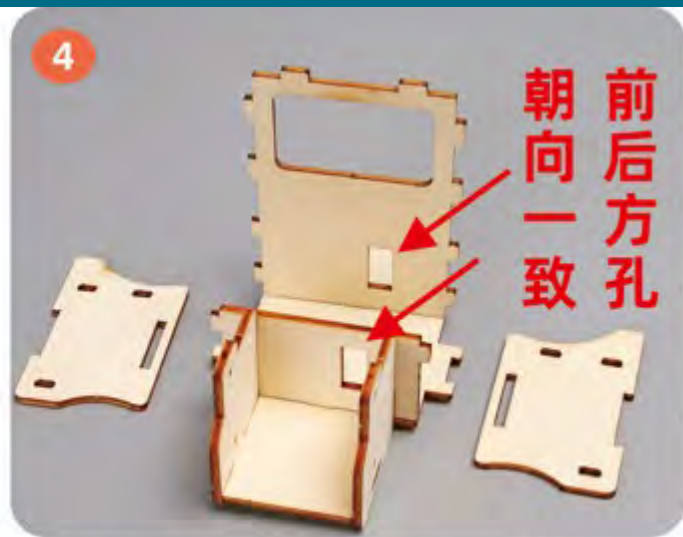
如图准备以上木质配件



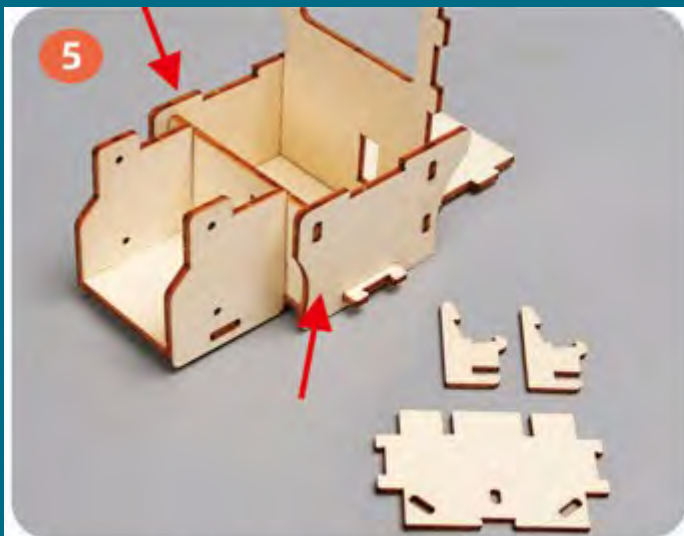
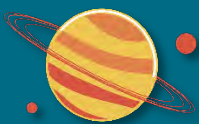
如图卡在底板两侧，准备下步配件



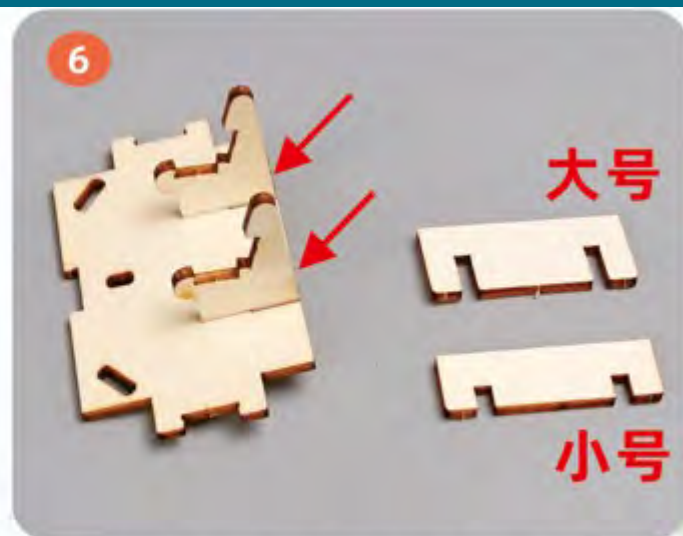
如图准备以上配件



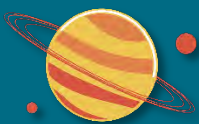
如图塞入卡槽，准备下步配件



如图安装两侧，准备驾驶舱组件



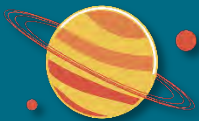
如图从后往前卡入，准备下步配件



如图先反着卡入大号板，再卡入小号板
驾驶座组装完成，准备下步配件



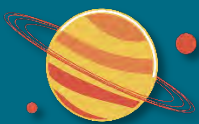
如图安装方向盘



如图准备以上组合件



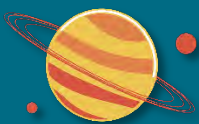
如图将驾驶舱按压入槽，准备下步配件



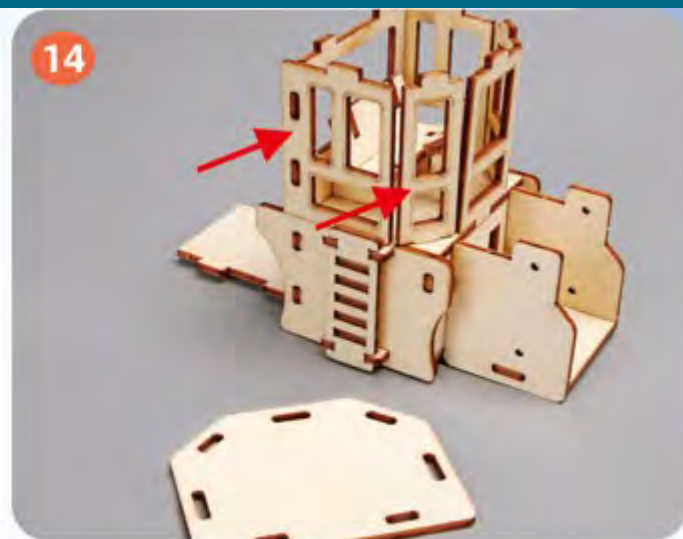
如图两侧安装小梯子，准备下步配件



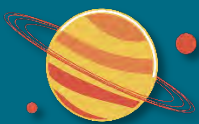
如图安装，准备下步配件



如图安装，准备下步配件



如图安装，准备顶板

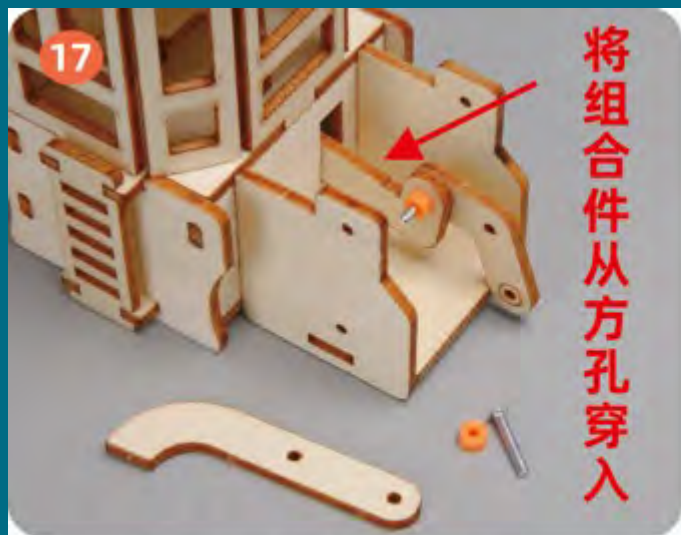
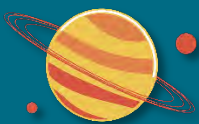


如图安装顶板，准备下步配件
及1个DT12钉，1个轴套

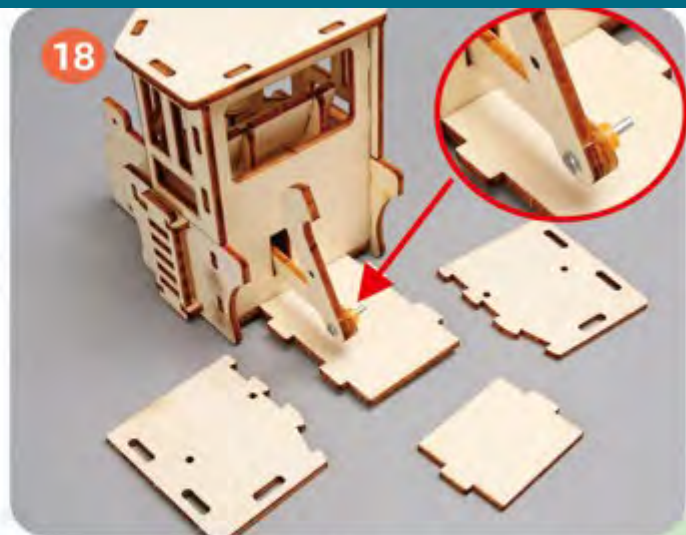


注意：图案面朝向

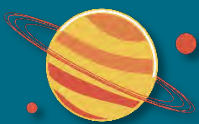
如图将DT12钉穿过小板并用轴套固定



如图用DT12钉穿过木片小孔并用轴套固定, 准备下步配件



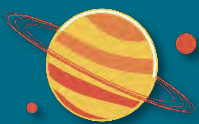
如图用DT12钉穿过木片小孔并用轴套固定，准备下步配件



如图安装，准备1根55短光轴及2个轴套



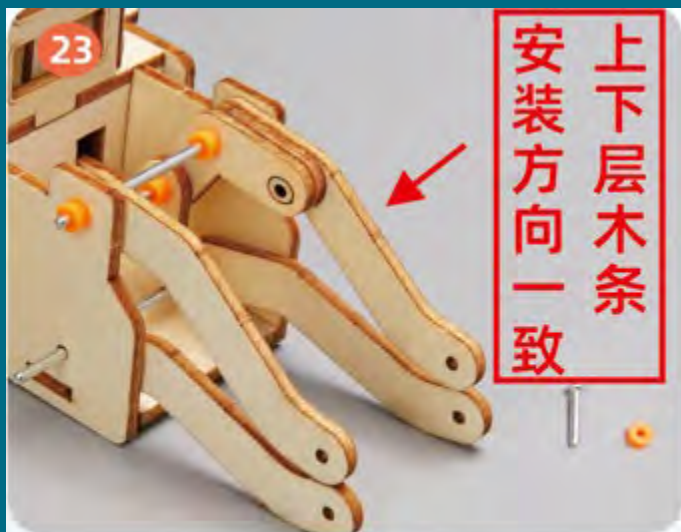
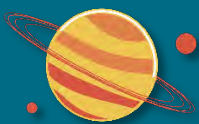
如图用55短光轴穿过小板第二个孔，
两侧用轴套固定，准备下步配件



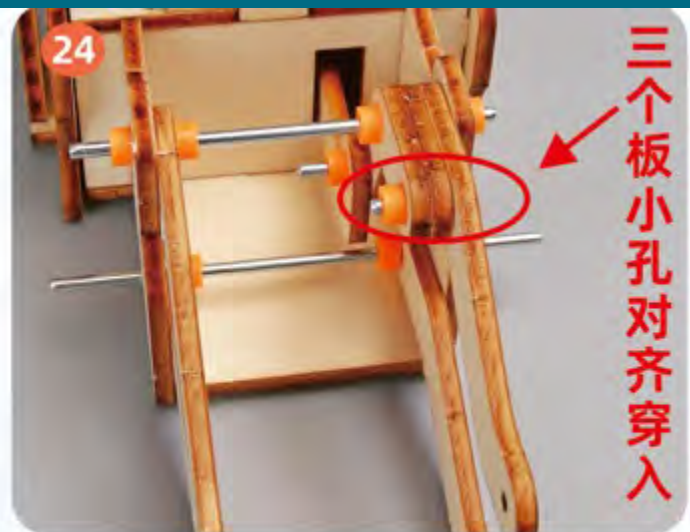
如图按进两侧卡槽内，
准备下步配件，准备1根65长光轴及2个轴套



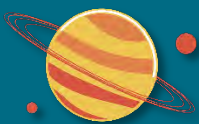
如图安装下层，准备下步配件，
1根55短光轴及4个轴套



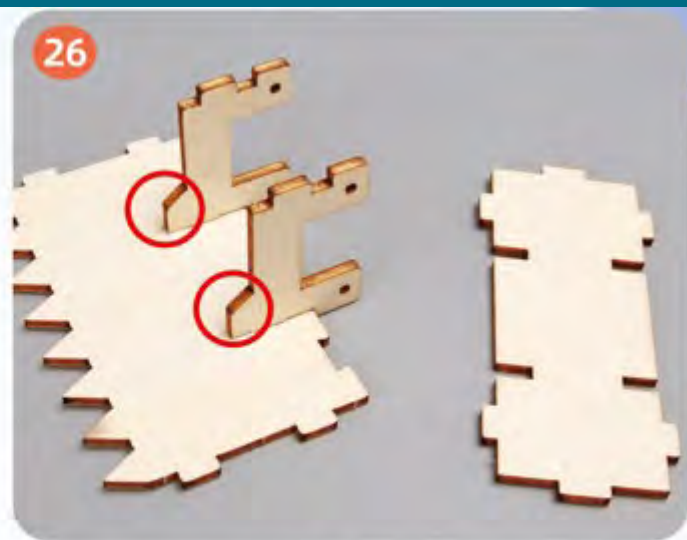
如图将配件依次安装，
准备1个DT12钉及1个轴套



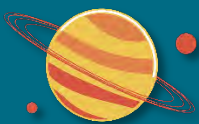
如图用DT12钉穿过三个小板小孔，
并用轴套固定



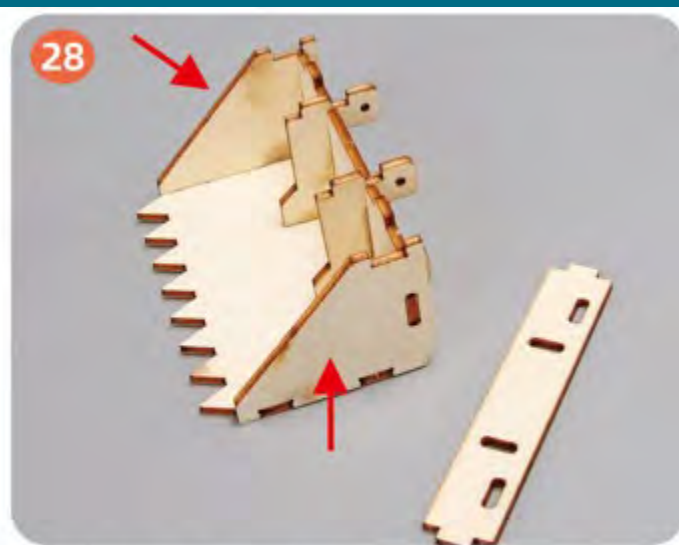
如图准备以上配件



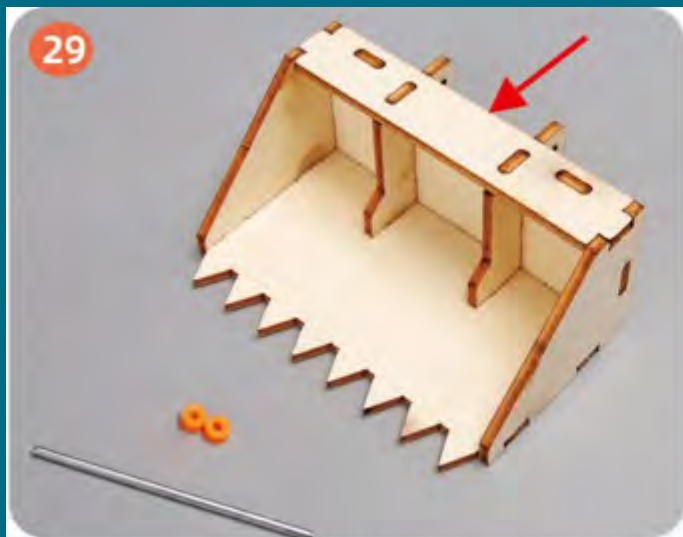
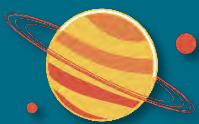
如图安装，准备下步配件



如图安装，准备下步配件



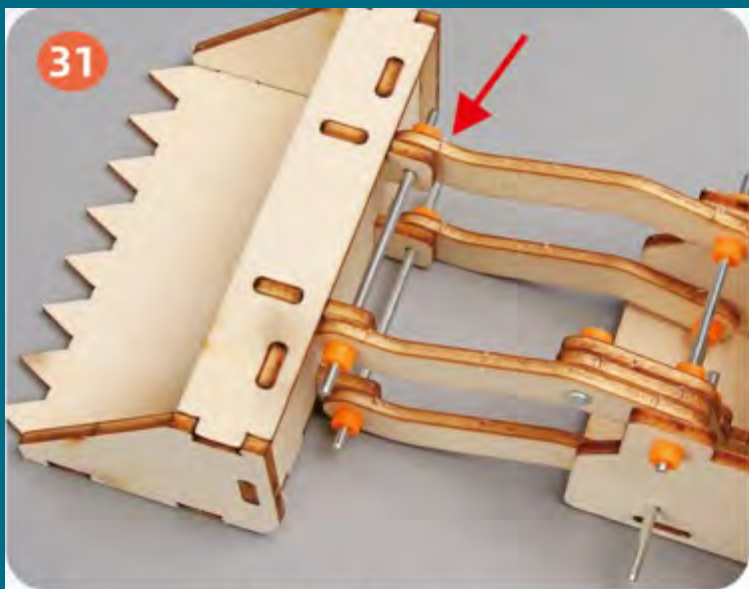
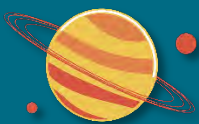
如图安装两侧，准备下步配件



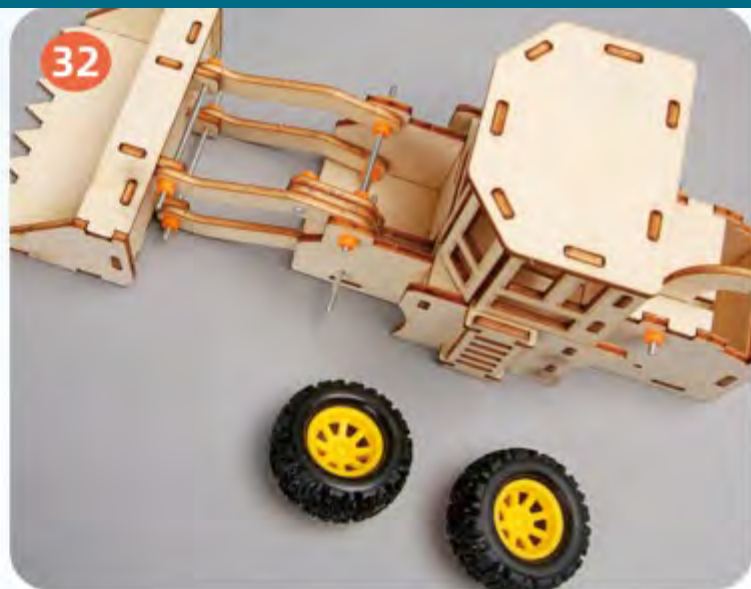
如图车斗组装完成
准备1根55短光轴及2个轴套



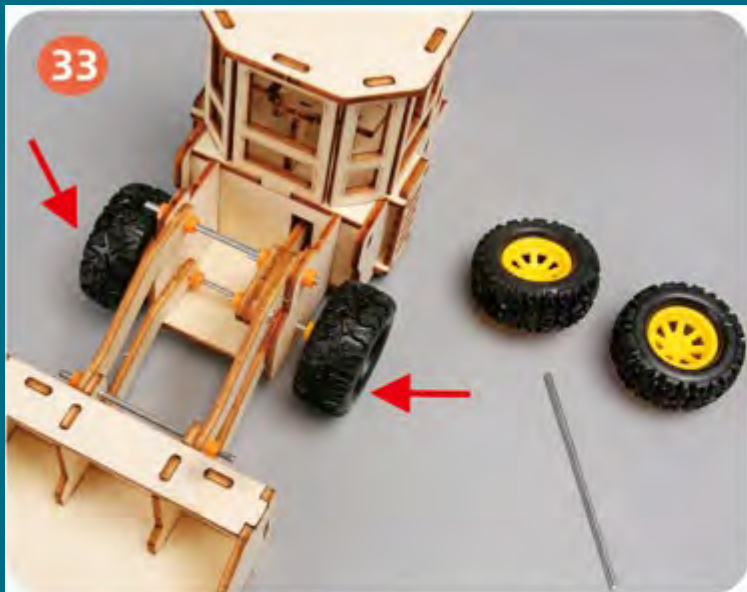
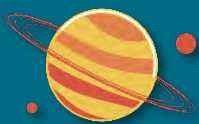
如图用光轴穿过并用轴套固定两侧，
准备1根55短光轴及2个轴套



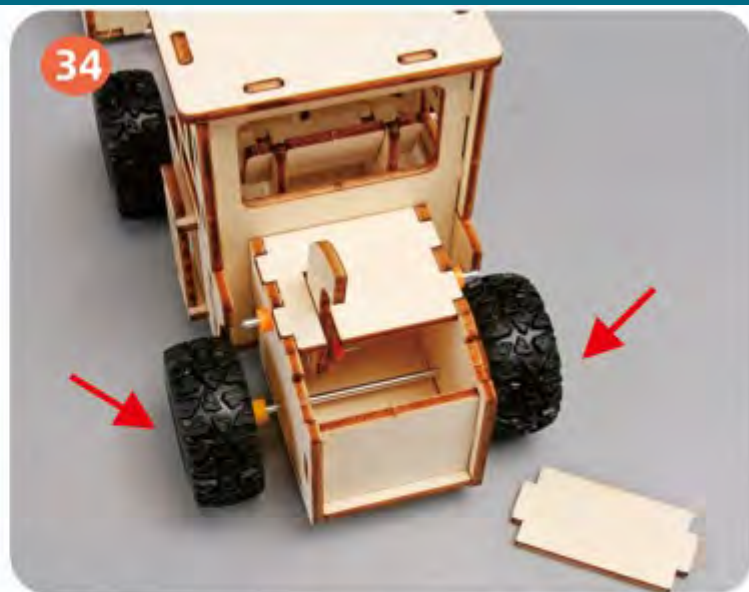
如图安装上层，
用光轴穿过并用轴套固定两侧



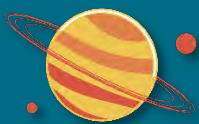
如图准备两个轮胎



如图将轮胎安装两侧，
准备1根65长光轴及2个轮胎



如图将光轴穿过小孔两侧安装轮胎
准备下步配件



如图安装

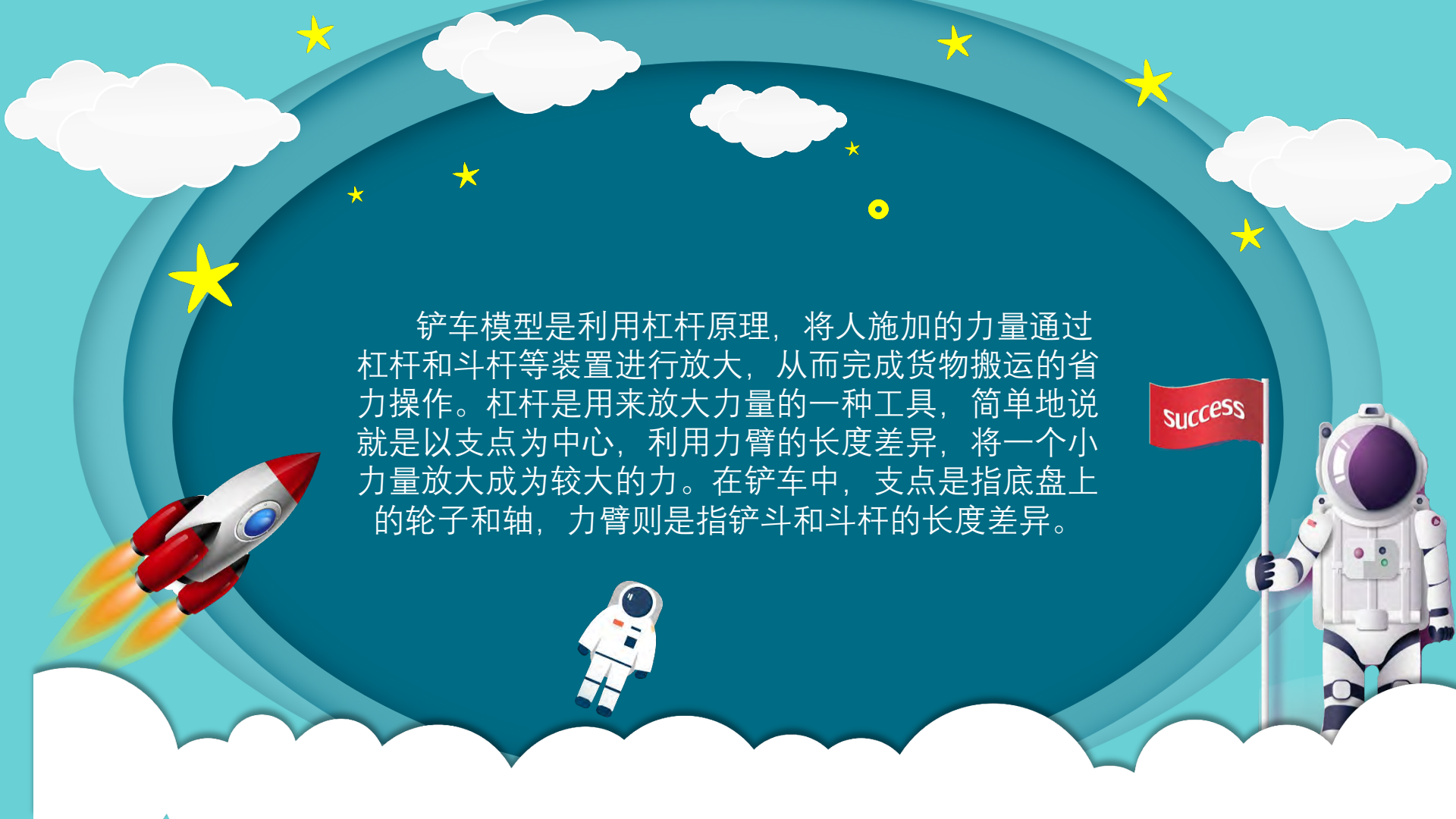


成品展示

科学小知识

思 考 很 重 要



The background is a stylized representation of outer space. It features a large, dark blue circular area in the center, surrounded by concentric light blue rings. White, fluffy clouds are scattered around the perimeter. Several yellow stars of different sizes are visible. In the bottom left, a red and white rocket with orange flames is launching upwards. In the bottom center, a small astronaut in a white suit is floating. On the right side, a larger astronaut in a white suit is standing on a white cloud, holding a red flag with the word "success" written on it in white. The overall theme is space exploration and achievement.

铲车模型是利用杠杆原理，将人施加的力量通过杠杆和斗杆等装置进行放大，从而完成货物搬运的省力操作。杠杆是用来放大力量的一种工具，简单地说就是以支点为中心，利用力臂的长度差异，将一个小力量放大成为较大的力。在铲车中，支点是指底盘上的轮子和轴，力臂则是指铲斗和斗杆的长度差异。