

Freewheeling

Name(s): _____

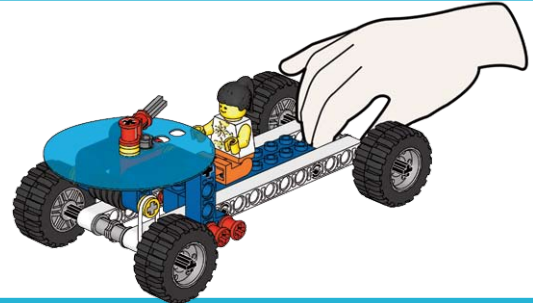
Which will roll furthest? Heavier or lighter carts, with bigger or smaller wheels? Let's find out!



Build the Freewheeler

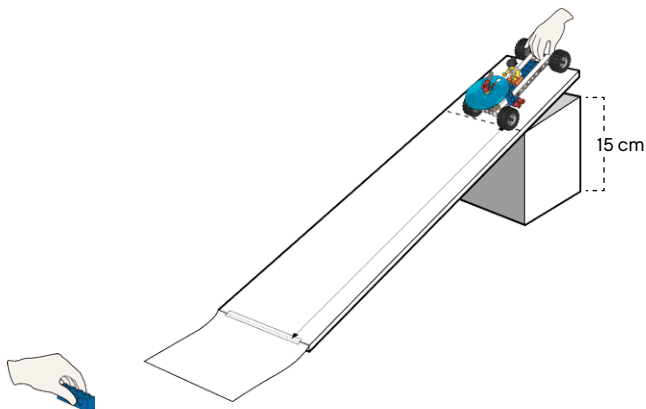
(all of book 3A and book 3B to page 6, step 12).

- Check all axles and bushings to make sure the wheels turn smoothly
- Let your Freewheeler run down the ramp



Which roll further ... heavy or light loads?

- Tip: Place a marker brick next to the track where you predict the cart will stop
- Reset the pointer on the scale after each test run



... and are big wheels better than small?

- Try using big wheels on the back axle

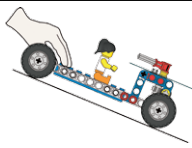
Test accordingly, following the challenges below:

	My prediction	My measurements
Extra weight		
Big wheels		
Big wheels and extra weight		
?		

Larger scales ... and steeper hills

Build book 3B to page 12, step 12.
 Change the ramp position to be 30 cm high.
 Test your different types of Freewheelers.

What I found out when making the slope steeper:

	My prediction	My measurements
		

My Amazing Downhill Racer!

Draw your favourite Freewheeler design.
 Explain how the 3 best bits work.