SCIENCE TEACHING MATERIALS

Wind and Rubber Mechanisms [Type DXII] Worksheet

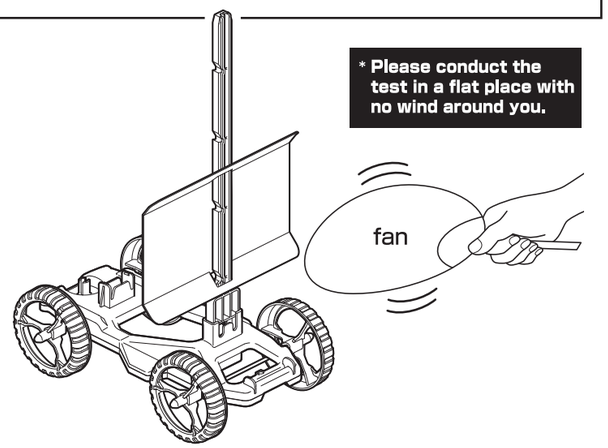
Name

Wind Mechanisms

Introduction

Let's make the wind car move

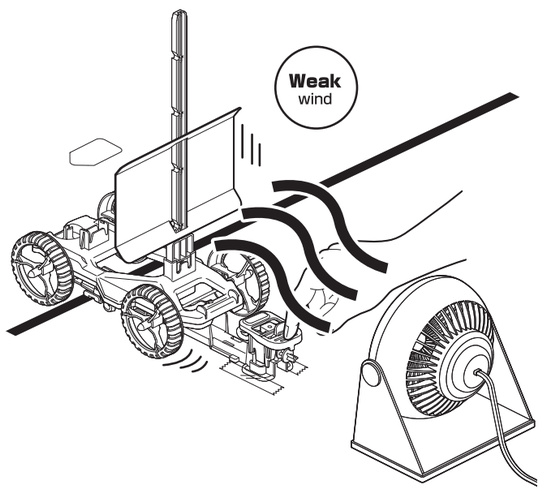
☆ Write about your observation when you make the wind car move.

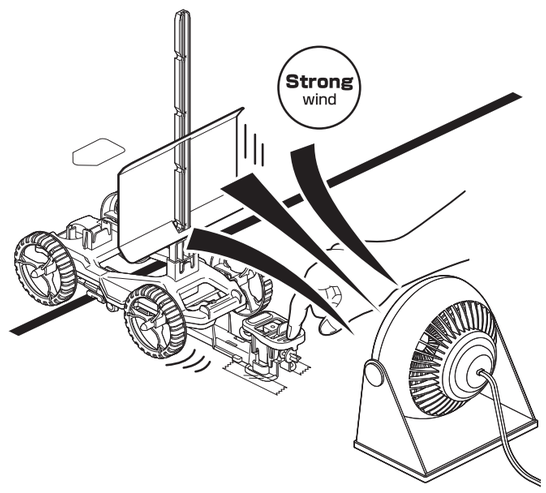


Experiment 1

Wind strength and movement

• Move the wind car and see if there is a difference in the distance it travels when the wind is light and when it is strong.





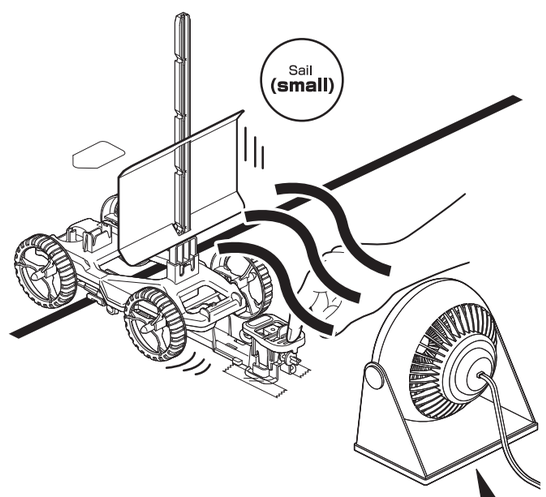
☆ Let's summarize the strength of the wind and how the car moves in the table below.

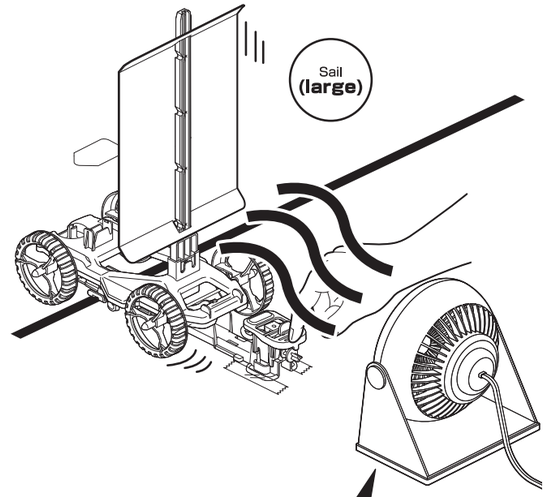
		When the wind is **weak**		When the wind is **strong**	
Distance	1st time	m	cm	m	cm
	2nd time	m	cm	m	cm
	3rd time	m	cm	m	cm
Summary					

Let's do it!

Sail size and movement

• Find out if there is a difference in distance the vehicle can run depending on the size of the sail.





The strength of the air blower should be the same.

☆ Summarise your findings in the table below.

		Sail (**small**)		Sail (**large**)	
Distance	1st time	m	cm	m	cm
	2nd time	m	cm	m	cm
	3rd time	m	cm	m	cm
Summary					

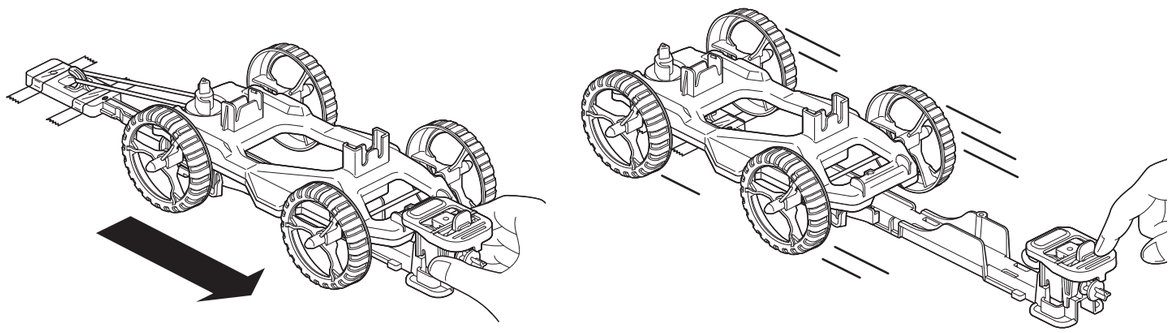
☆ Write down what you have learnt about the effect of wind on the distance travelled.

• When the wind is weak, the distance between the objects becomes ( ), and the distance between the objects becomes ( ) when the wind is strong.
• The ( ) the area exposed to the wind, the shorter the distance traveled; the ( ) the area exposed to the wind, the longer the distance traveled.

☆ Discuss and summarise how you can use the wind to move objects.

Introduction

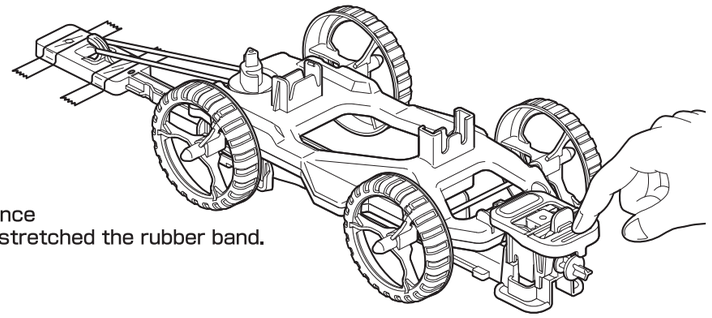
Let's make the rubber car move



☆ Let's move the rubber car and write down our observation!

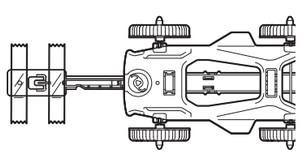
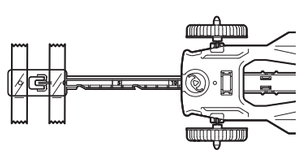
Experiment 2

Stretching the rubber band and movement



● Find out if there is a difference in the distance travelled depending on how long you have stretched the rubber band.

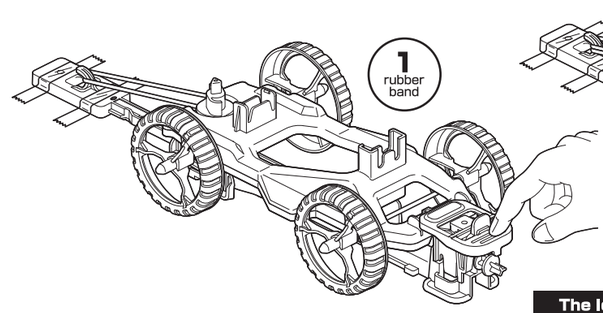
☆ Let's summarise your findings in the table below.

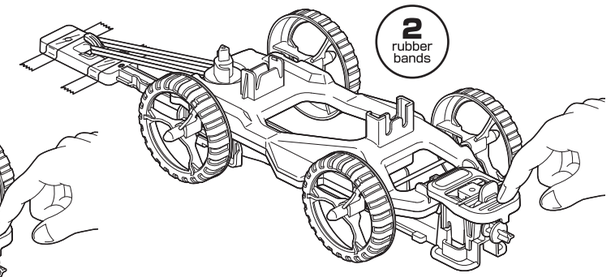
		 When stretched to **5**		 When stretched to **10**		 When stretched to **15**	
Distance	1st time	m	cm	m	cm	m	cm
	2nd time	m	cm	m	cm	m	cm
	3rd time	m	cm	m	cm	m	cm
Summary							

Experiment 3

Number of rubber bands and movement

● Compare the difference in the distance travelled when you use 1 rubber band and 2 rubber bands.





The length to stretch the rubber band should be the same (5 on the scale) for the experiments.

☆ Let's summarise your findings in the table below.

		When there is only **1** rubber band		When there are **2** rubber bands	
Distance	1st time	m	cm	m	cm
	2nd time	m	cm	m	cm
	3rd time	m	cm	m	cm
Summary					

☆ For Experiments 2 and 3, write down what you have learnt about the effect of the number of rubber bands on the distance travelled.

● When the rubber is stretched to a ( ) length, the distance travelled by the object is shorter, when the rubber is stretched to a ( ) length, the distance travelled by the object is longer.

● As the number of rubbers band increases, the distance the object moves becomes ( ).

☆ Let's discuss and summarise how to use the force exerted by rubber ands to make an object move.

Let's do it!

Let's make a propeller car move
Let's spin the top

☆ Write about your impressions of driving a propeller car and spinning a top.