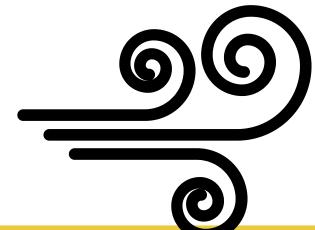
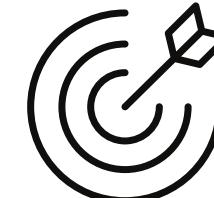


LIFT A MARBLE WITH THE WIND!

How can you use the wind to lift a marble?



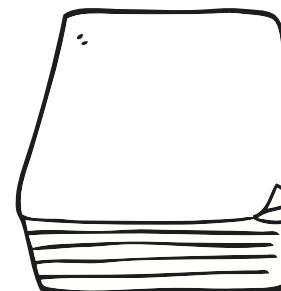
YOUR GOAL



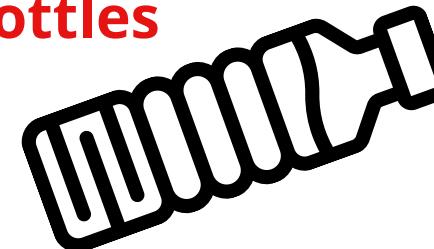
Design a propeller to raise a marble.
(see back of card for example)

POSSIBLE PROPELLOR MATERIALS

paper/cardstock



plastic cups
water bottles



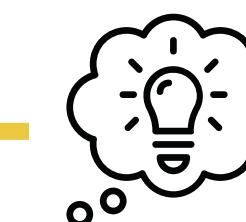
cardboard



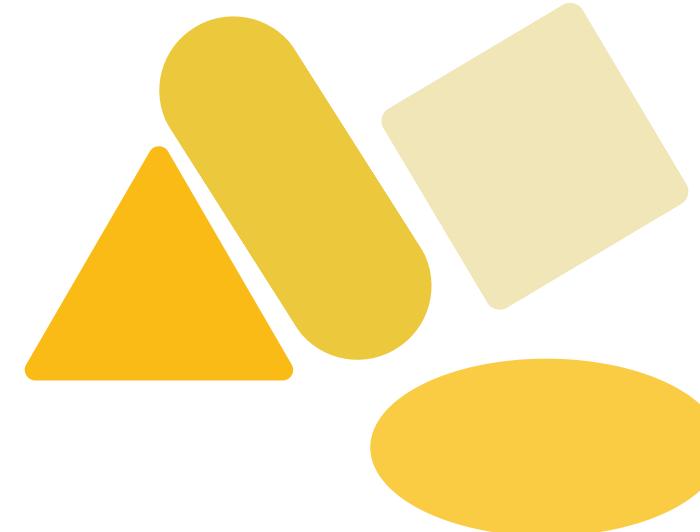
manila paper



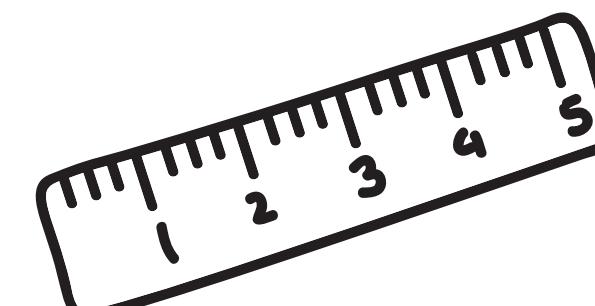
PLAN THE PROPELLERS



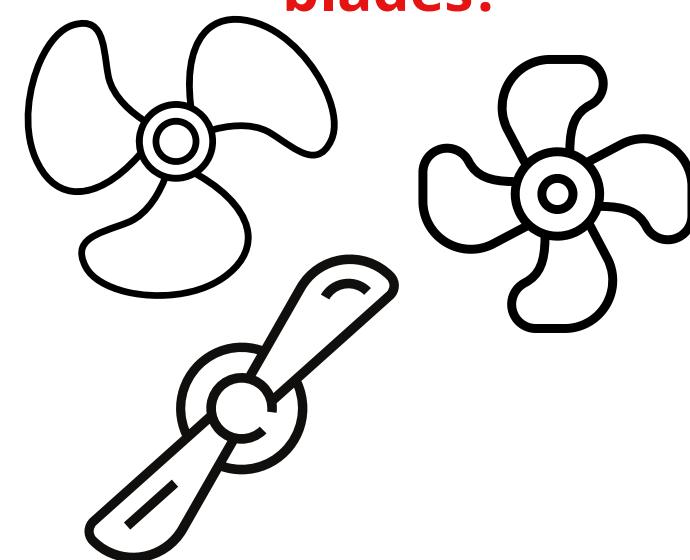
different shapes?



different lengths?



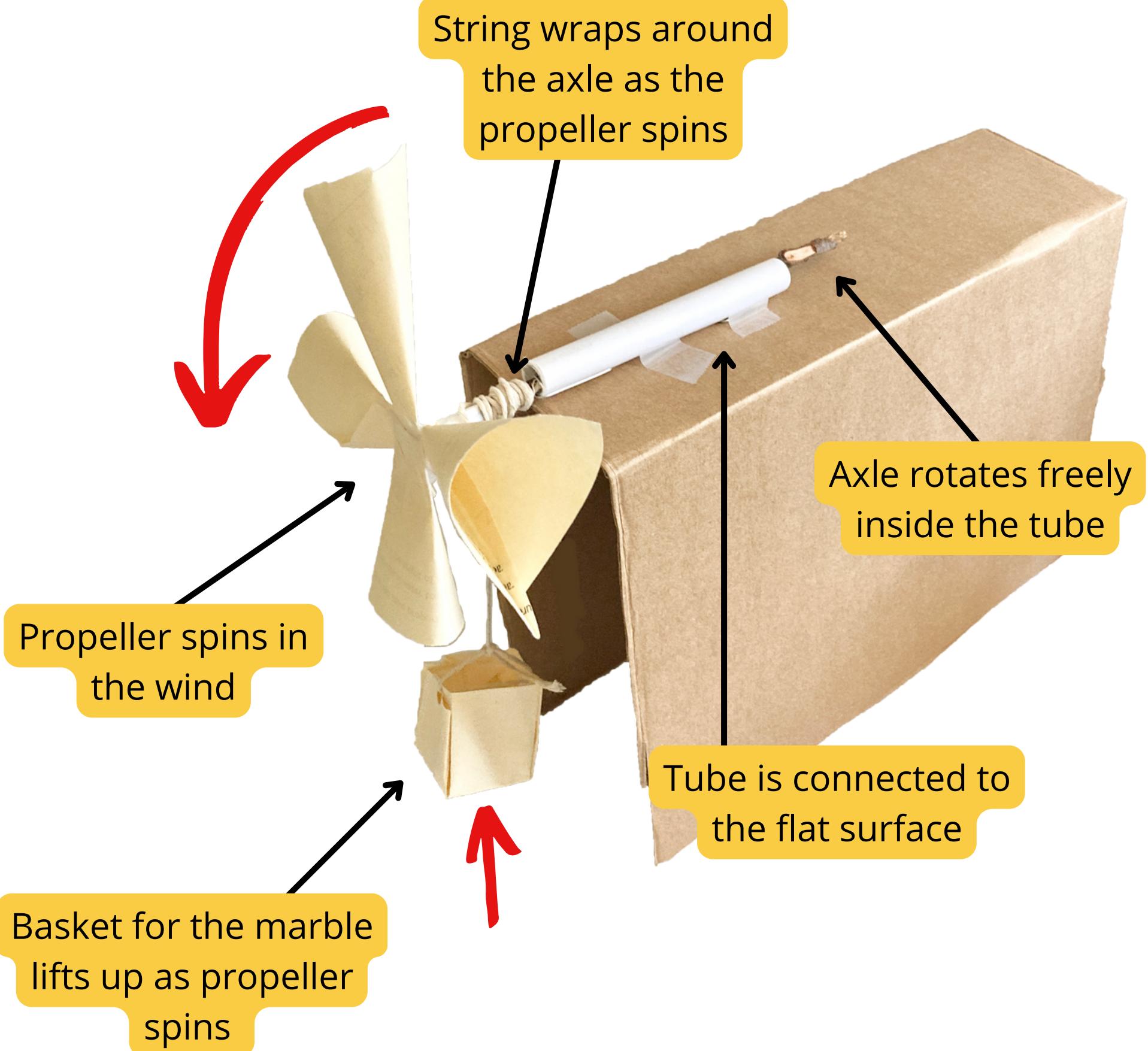
different number of
blades?



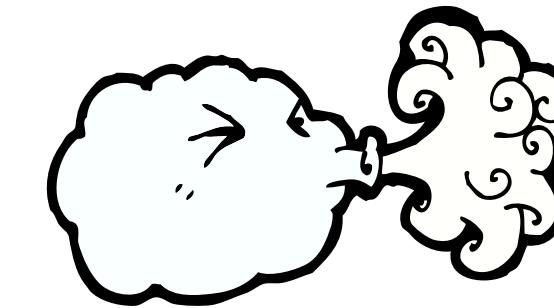
different materials?



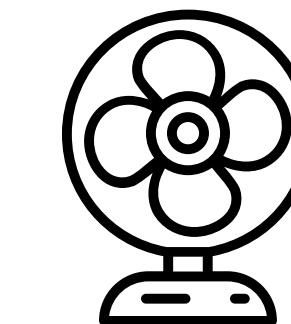
THINKING THROUGH THE PARTS



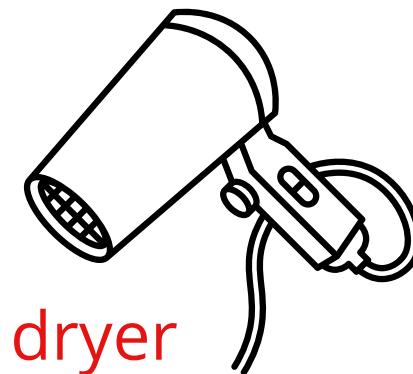
HOW TO TEST



Blow on the propeller



fan



hair dryer



put outside in the wind