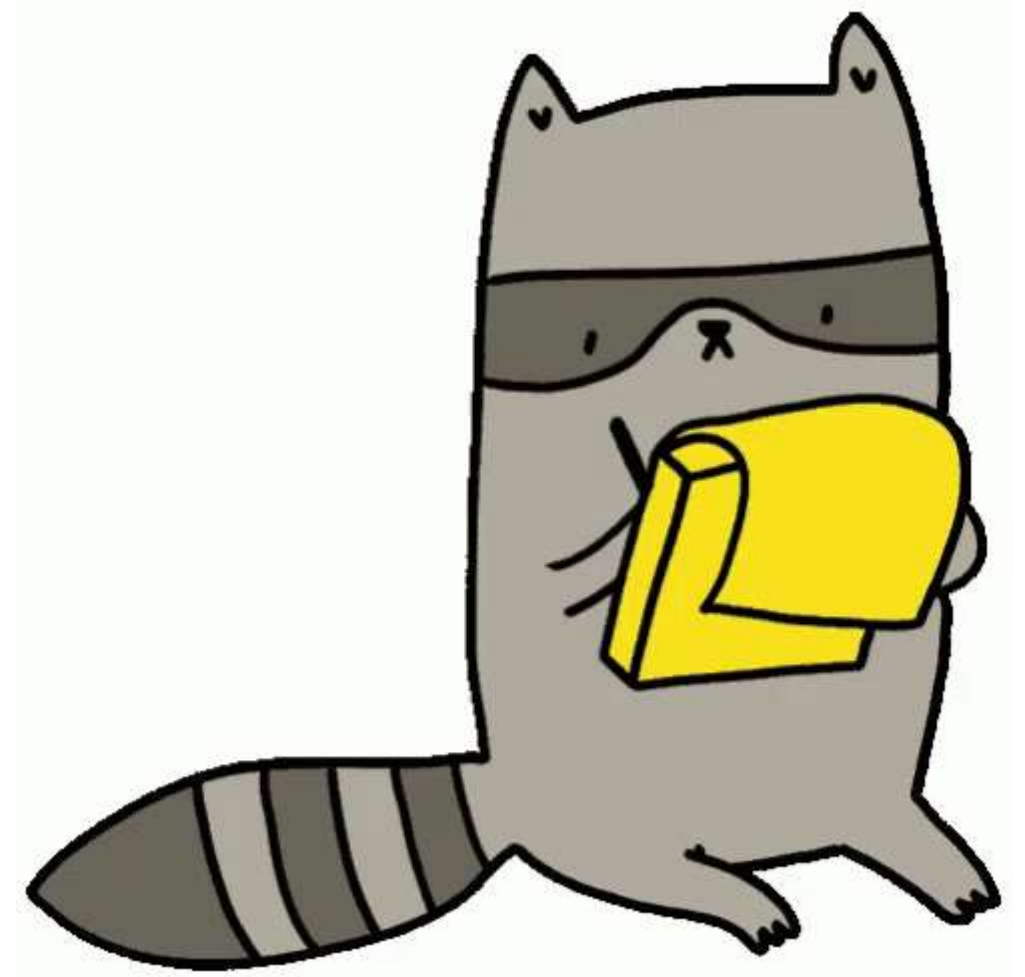


Get some paper and a pen!

Get some water!



- Forces Review
 - Gravity
- Air and Water Resistance



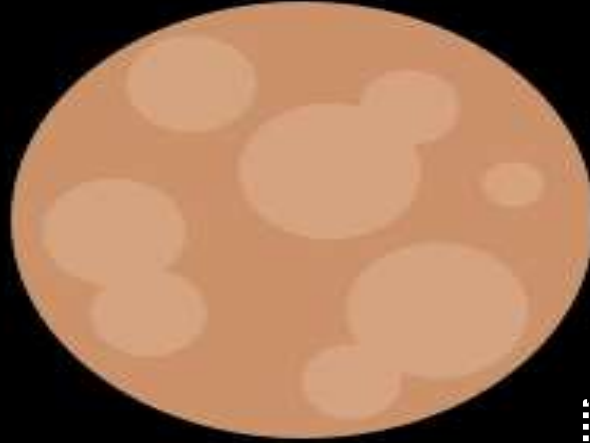
We studied
this last
week! You
should know
everything!

Friction



**What force pulls
the astronaut
down?**

Gravity!!



Remember weight is a
force caused by
gravity.



**Who first
discovered
gravity?**

Isaac Newton

**Remember gravity
is different on
different planets.**

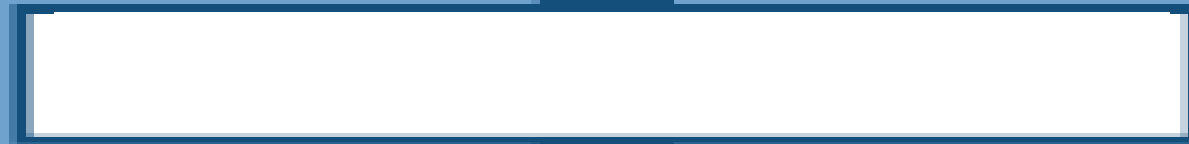
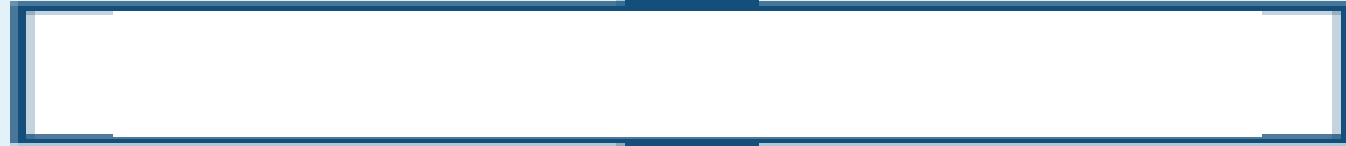


**This means your
weight is
different.**

**weight = gravity x
mass**

$N = \text{gravity} \times \text{kg}$

**What
forces act
on the
boat?**



Remember water
and air resistance
reduce the speed
of an object.



Upthrust



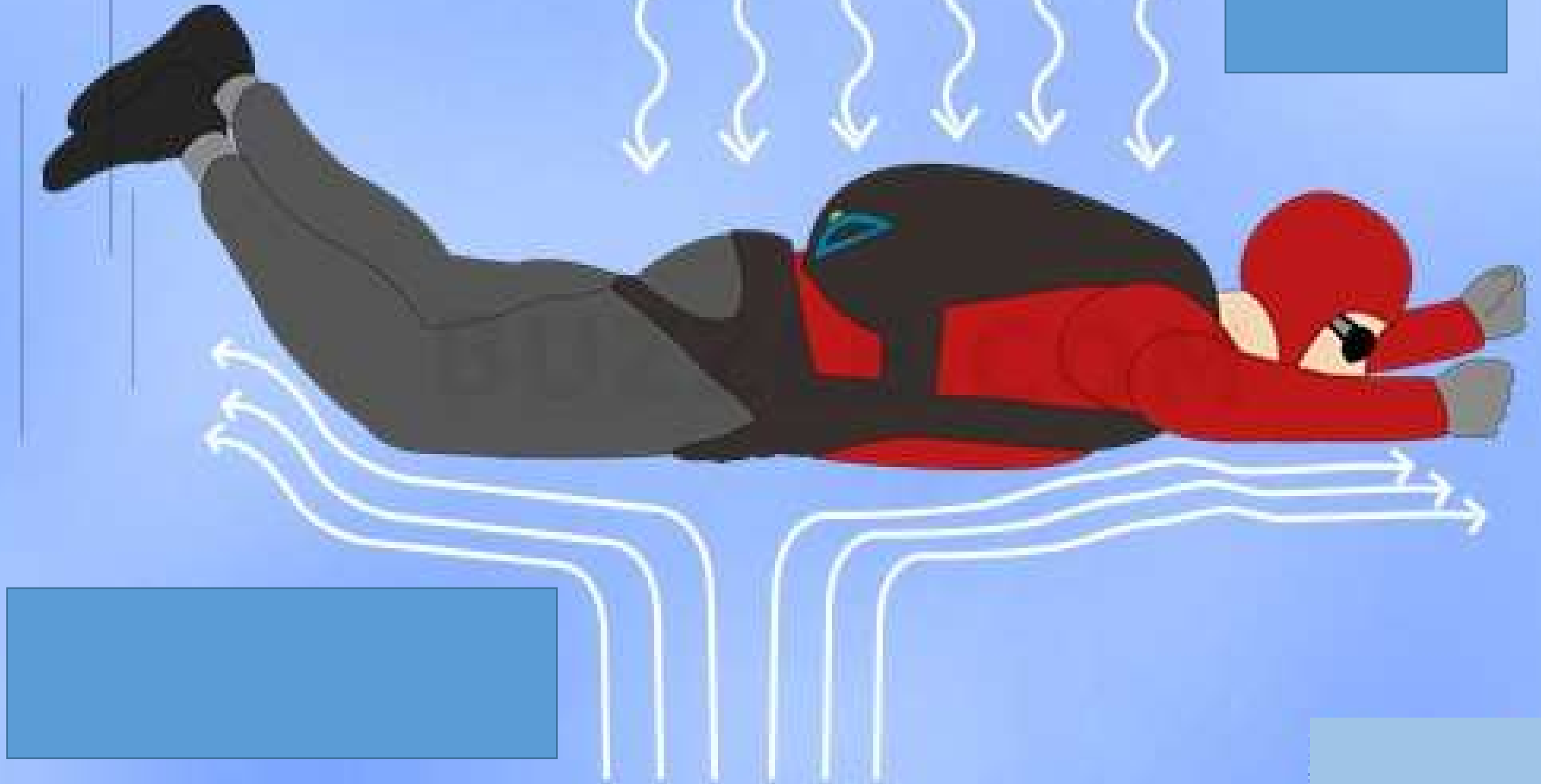
Thrust

Weight

Drag

(water
resistance)

What forces act on the parachutist?

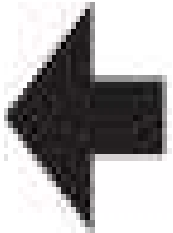


What forces act on the plane?

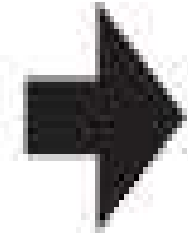
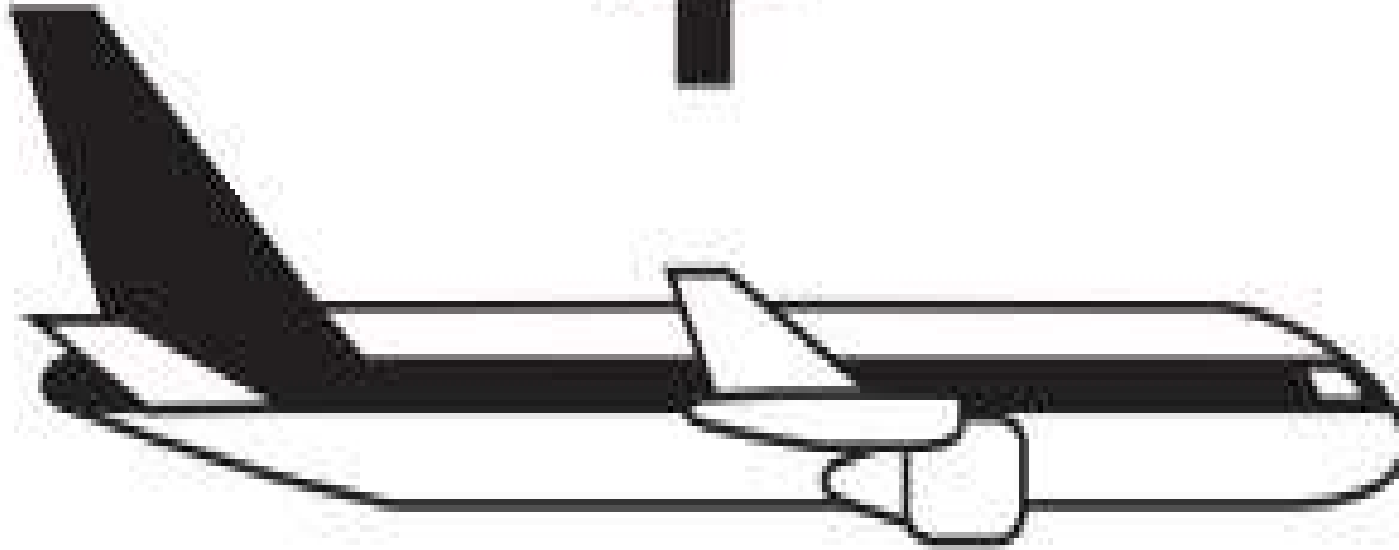
Lift



Drag



drag = air
resistance



Thrust



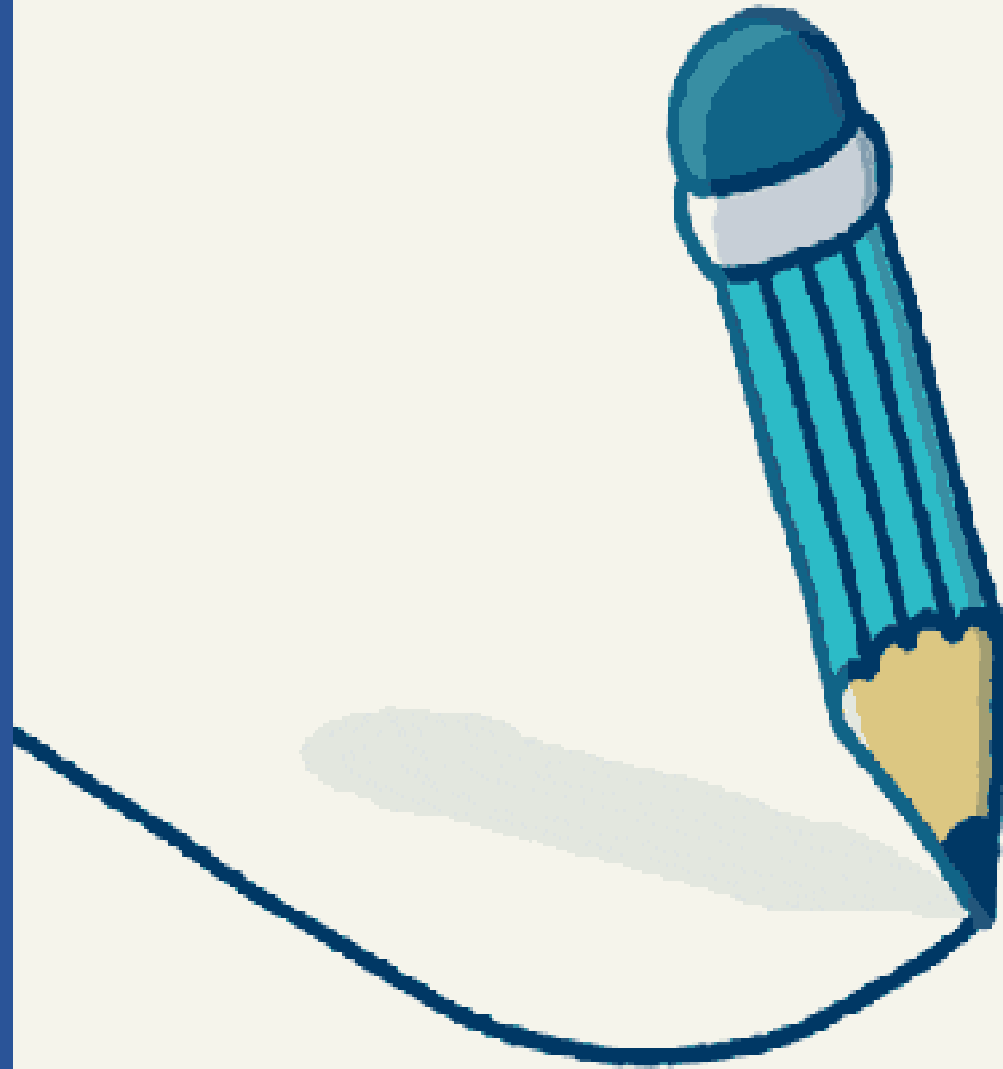
Weight





The force arrows are missing! Draw arrows when the teacher asks you to!

Don't draw until you are asked to.



Draw a force
arrow for
gravity.



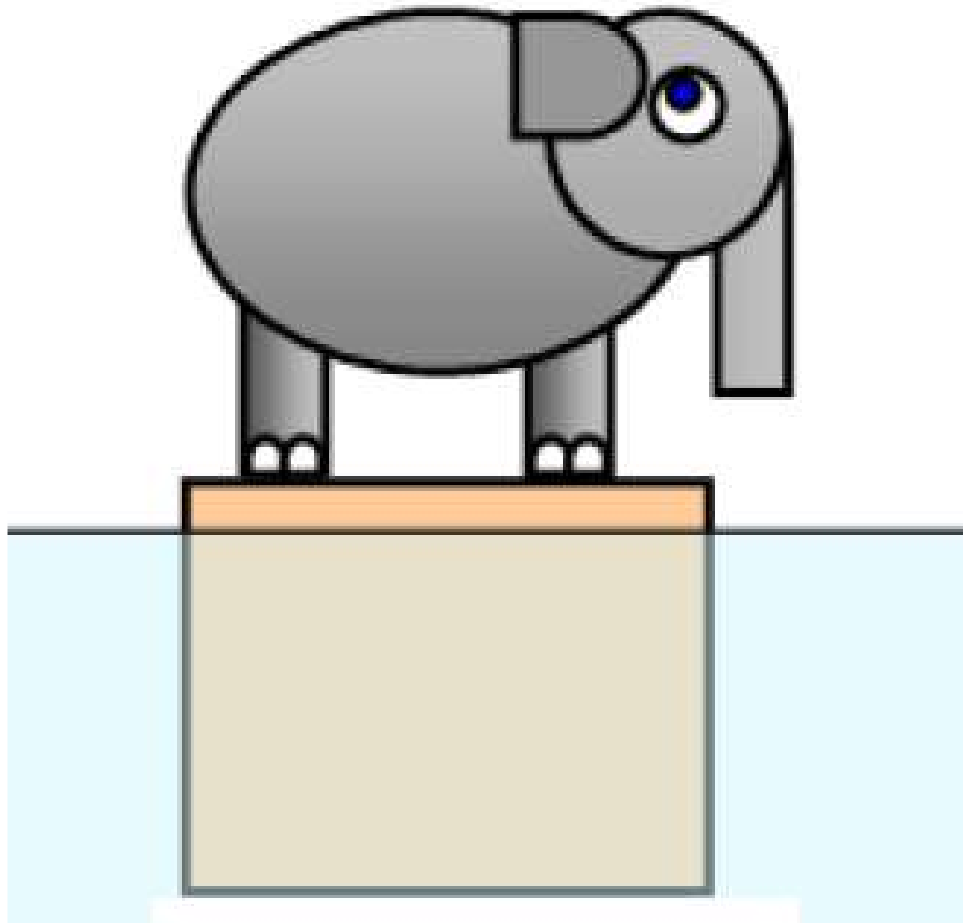
Draw a force
arrow for air
resistance.



Draw a force
arrow for water
resistance.



Draw a force
arrow for
upthrust.



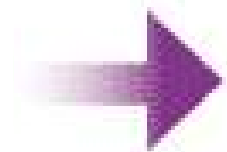
**There is something
wrong with all these
pictures.**

**Write what is wrong
on your paper.**

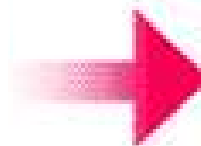


1

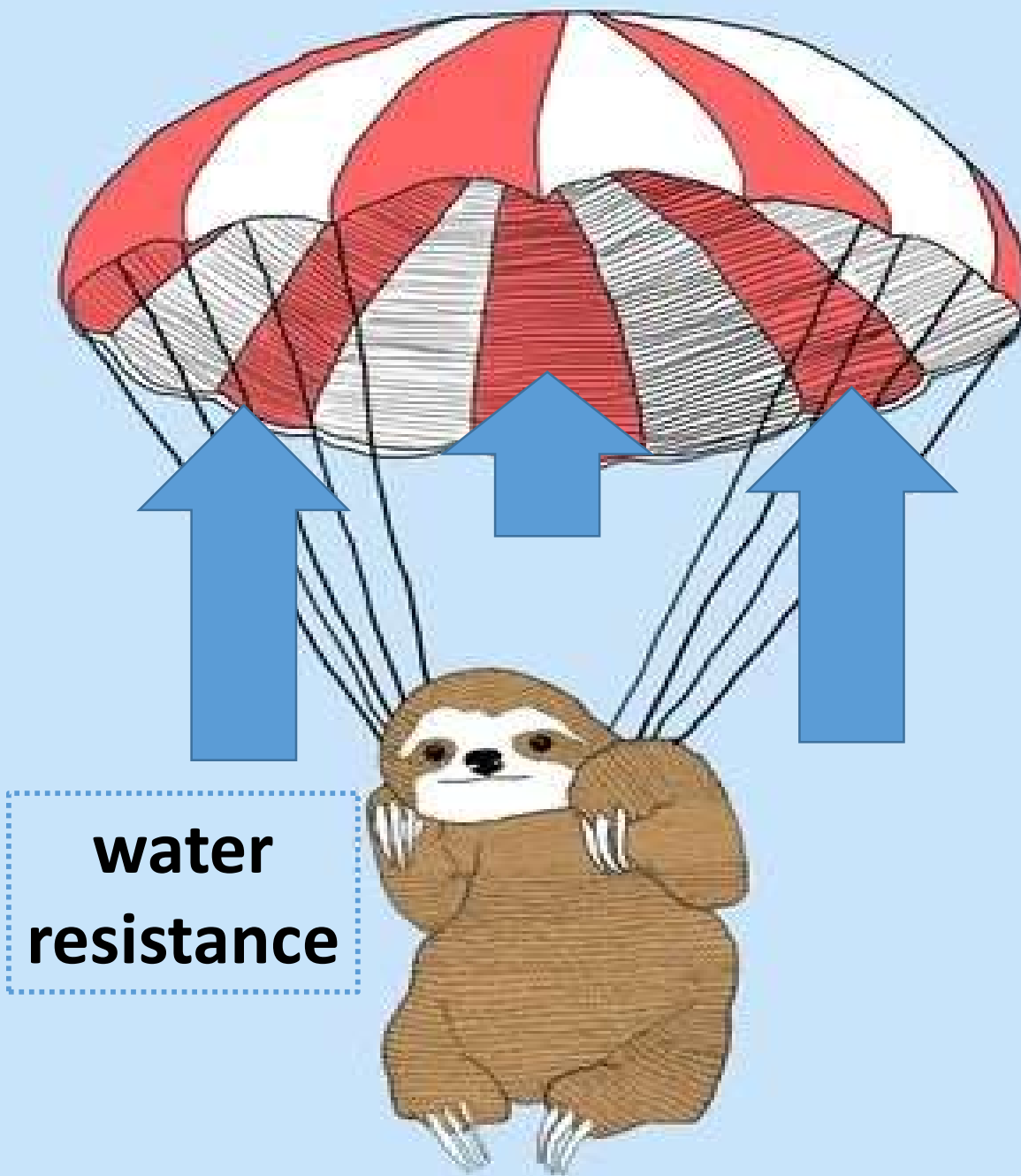
pull



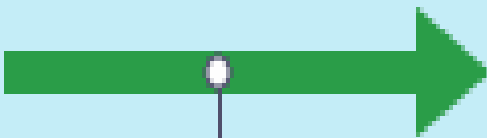
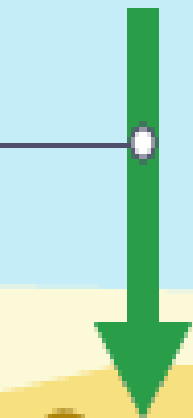
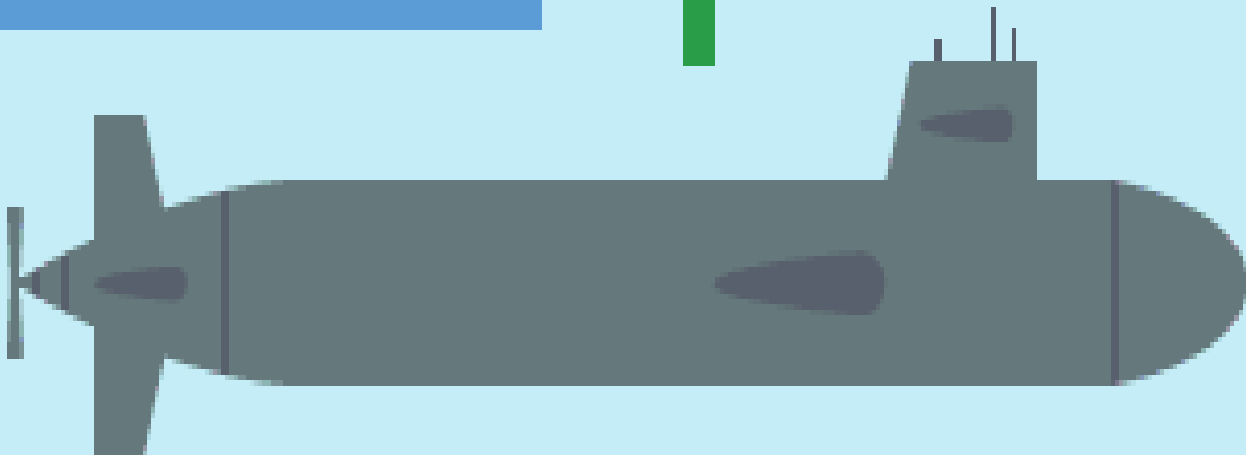
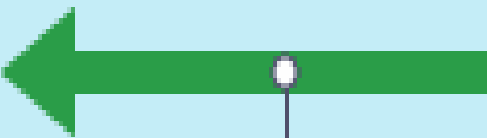
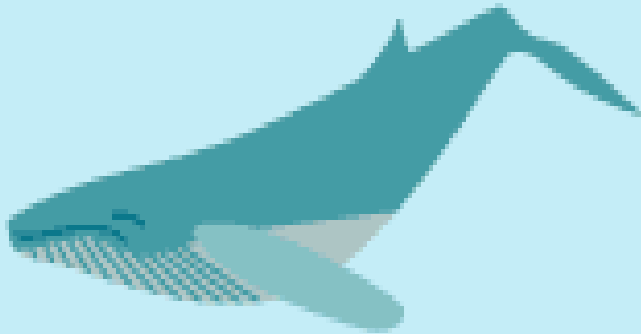
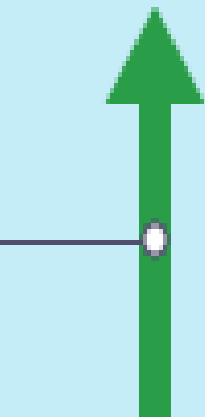
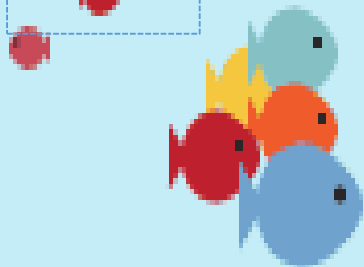
push



2



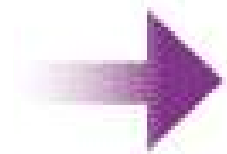
3



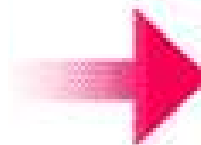


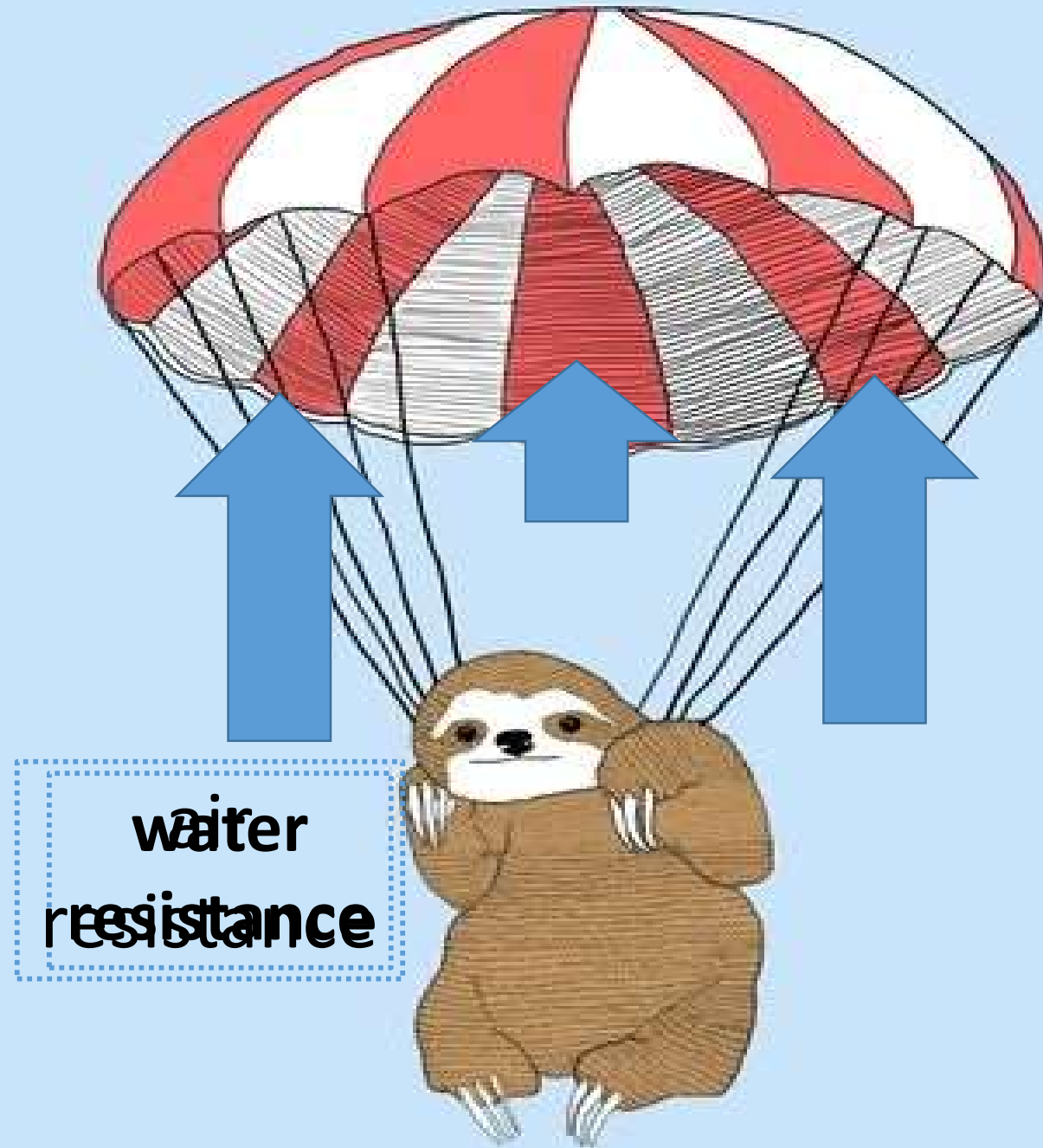
Let's find
the
answers!

pull



push

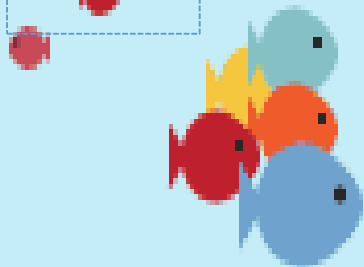




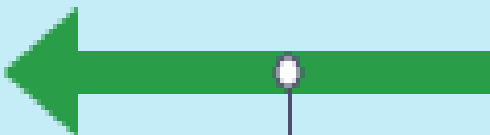
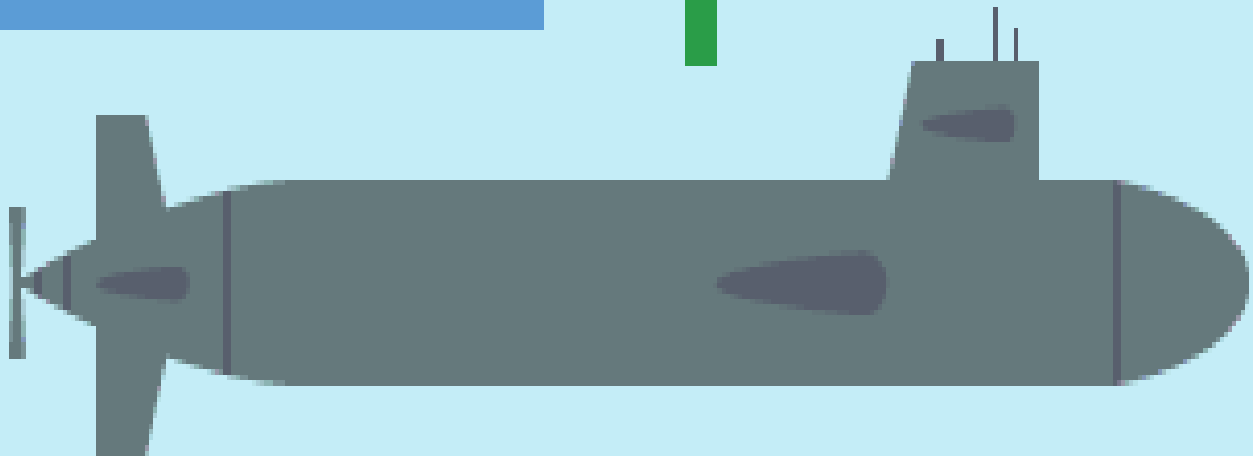
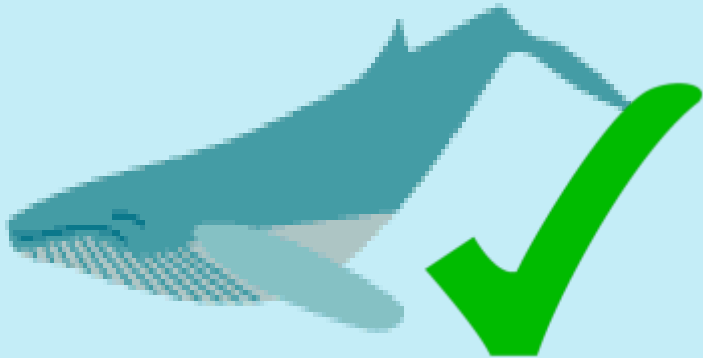
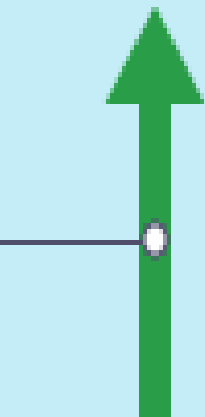
**water
resistance**



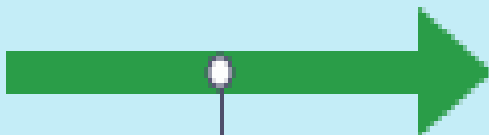
3



weight

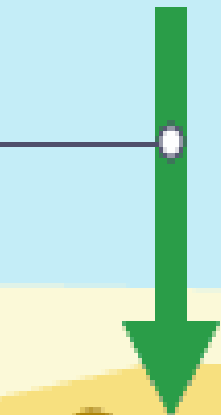


water
resistance



thrust

upthrust



Review Time

Forces we have studied:

Push



Pull



Review Time

Forces we have studied:

Gravity



**First
discovered by
Isaac Newton.**

Review Time

Forces we have studied:

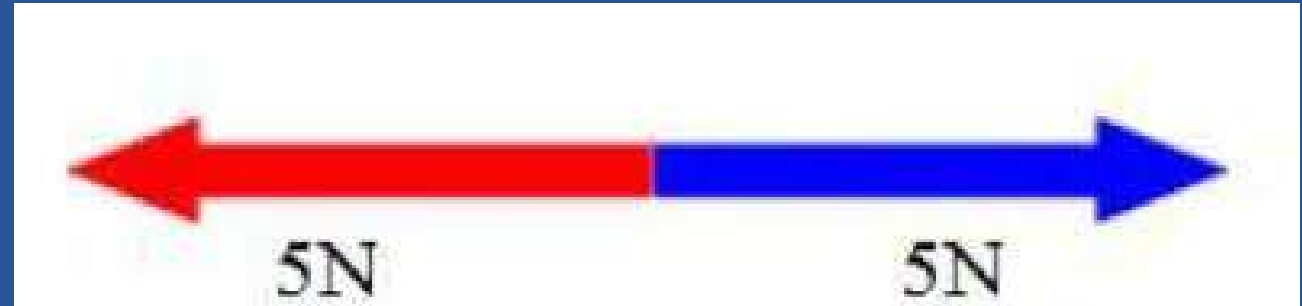
**Air and
Water
Resistance**



Review Time

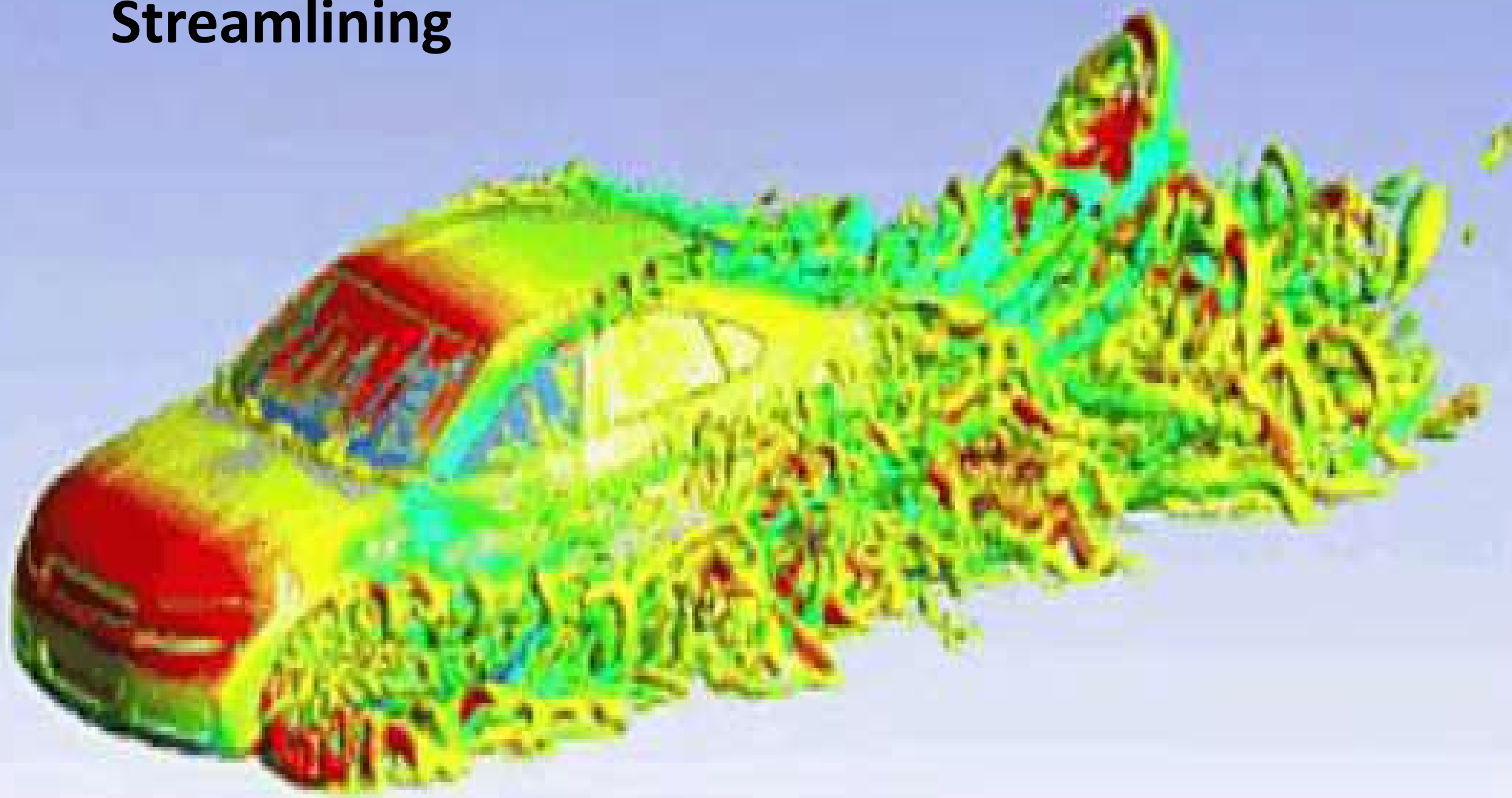
Force arrows:

Force arrows
show the
direction and
strength of a
force.



Sometimes the
forces are
balanced.

Streamlining



What is special about the burger's shape?

**It is
streamlined.**



**Most burgers are not really streamlined!
Only if they are curved and flat.**

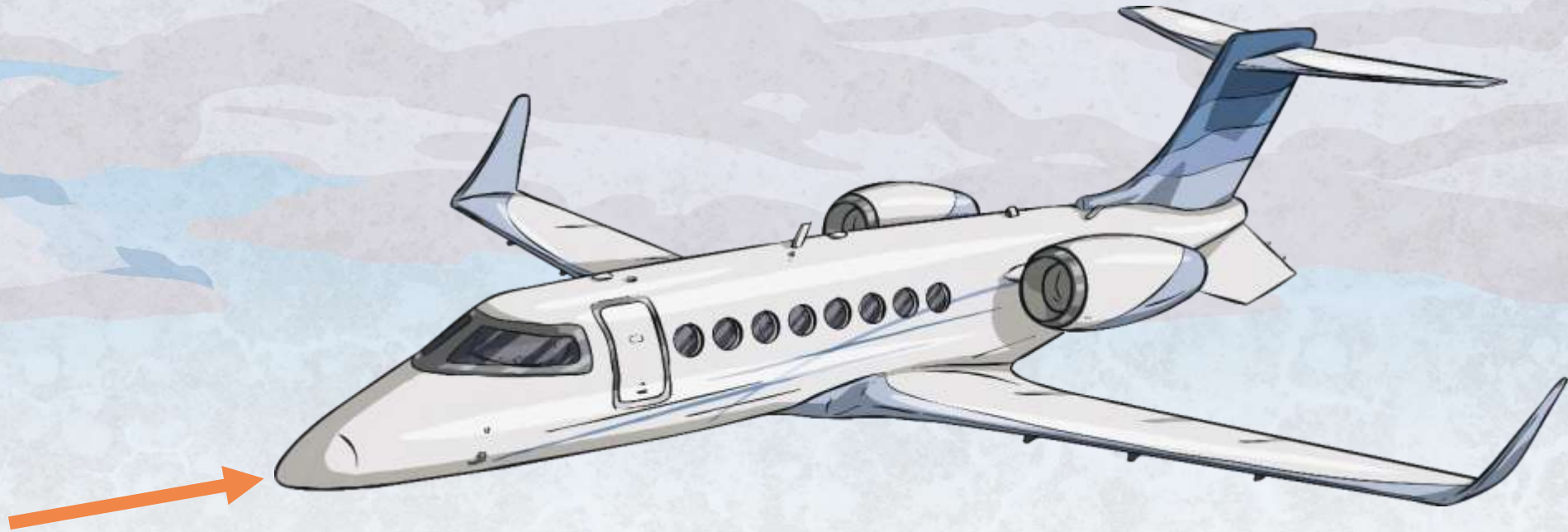
It is possible to reduce water and air resistance.

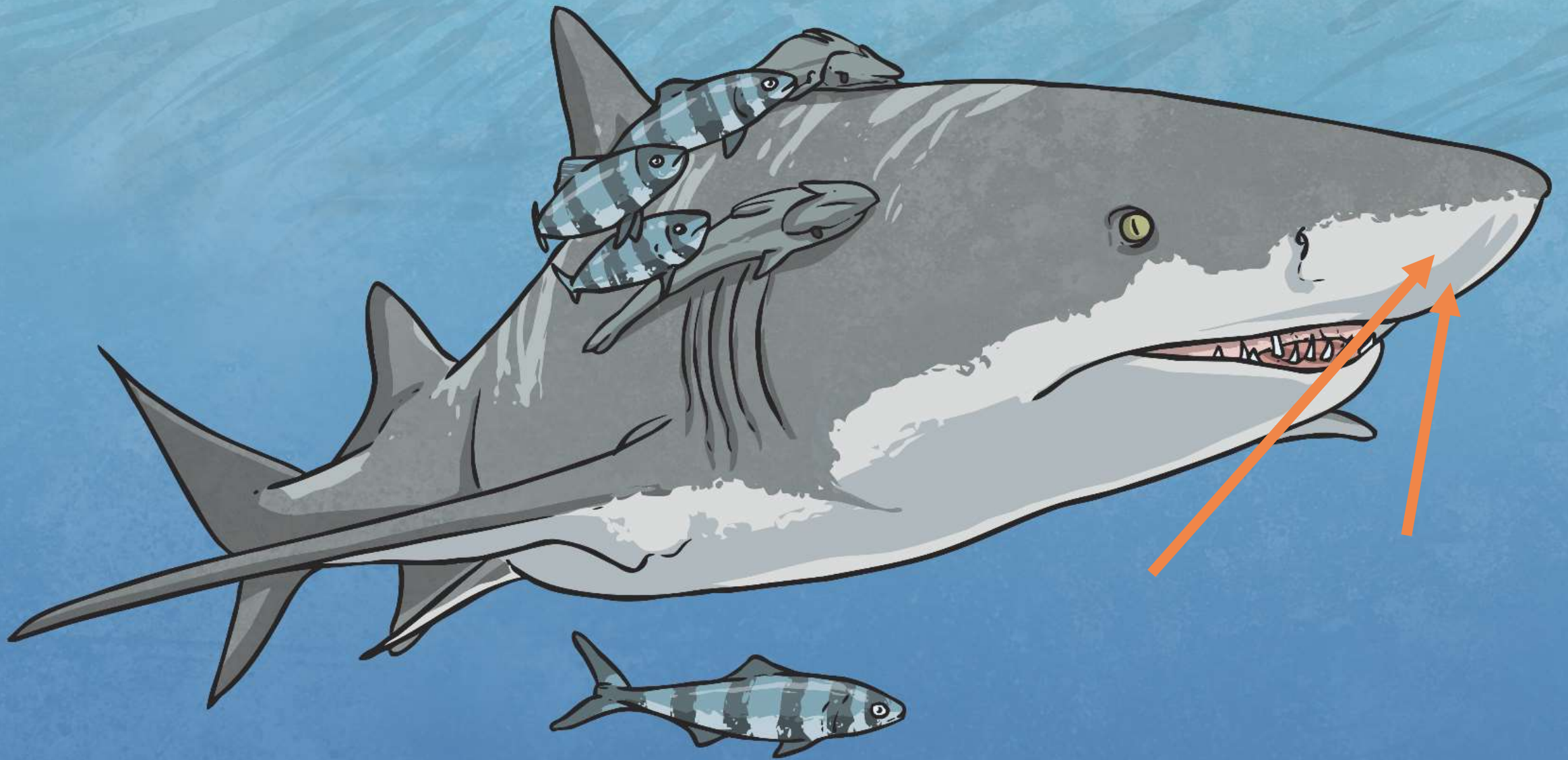
We need streamlined shapes.



Curved shapes reduce air and water resistance.

They are streamlined.





The shark has got a streamlined nose - it can swim easily.



**Streamlined shapes
reduce air or water
resistance.**





Answer these
questions on
paper.



**EXPLAIN
YOURSELF.**



A

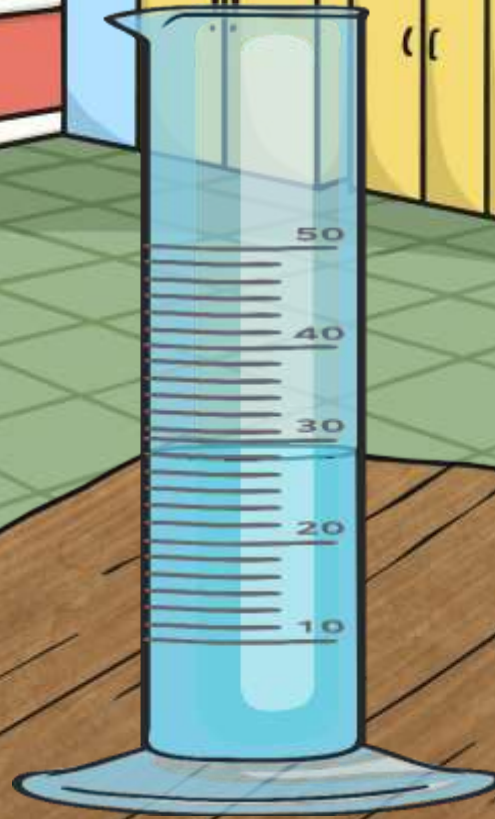
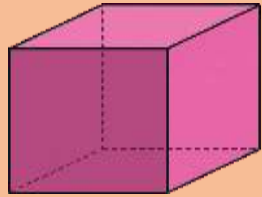
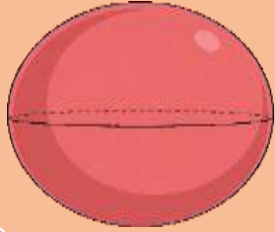


B

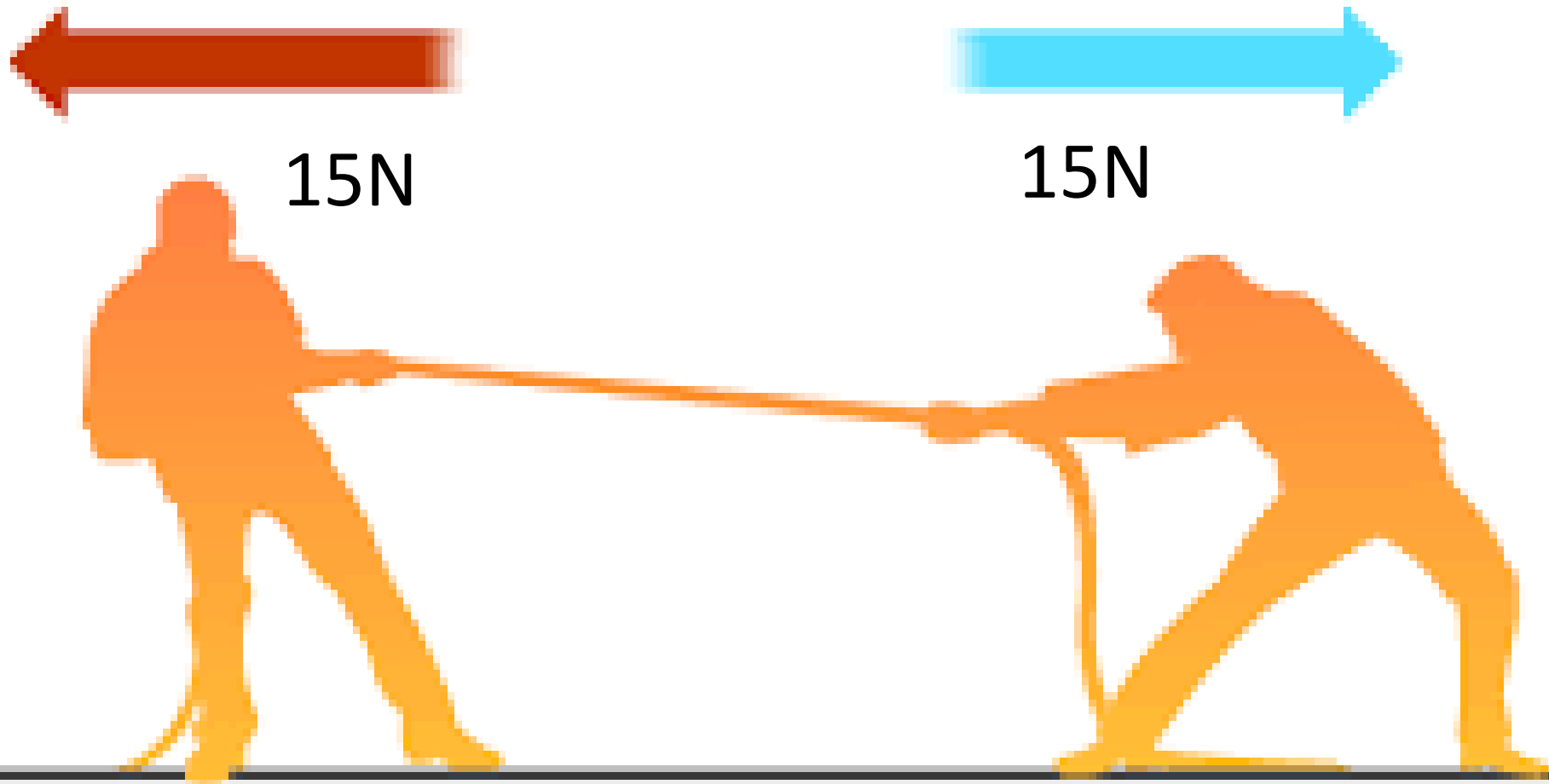
1. Which monkey would reach the ground first?

Explain your answer.

2. Which shape do you think would fall the **fastest through liquid**?
Explain your answer.



3. Who would win this game of **tug 'o' war**? Explain your answer.





4. Which skier would move down the mountain the fastest?

Explain your answer!

5. You are going walking on ice. Which shoes would you choose?

Explain your answer!!!



A



B



Answers



A

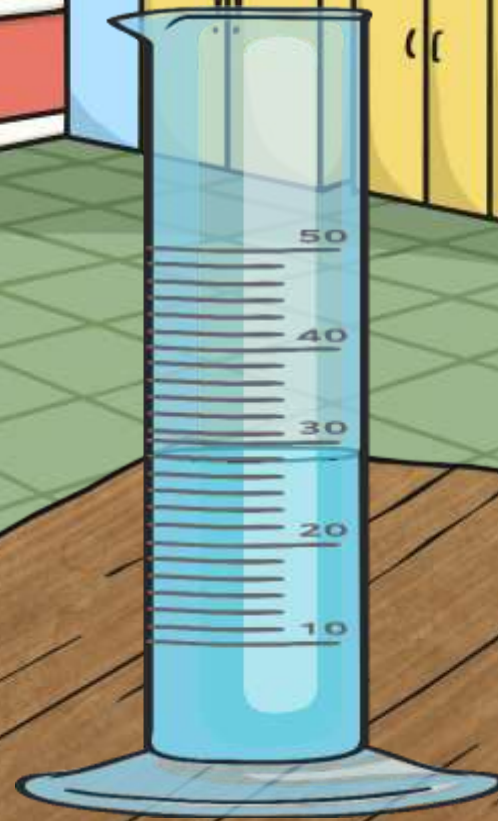
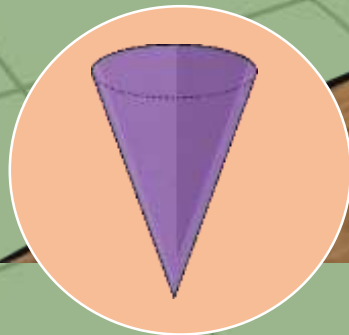
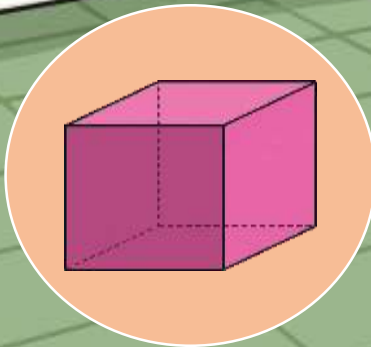
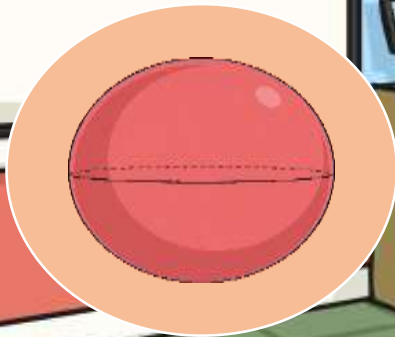


B

1. Which monkey would reach the ground first?

Monkey A - The parachute is smaller
Explain your answer.
There will be less air resistance.

The cone - it is a streamlined shape so it will have less water resistance.



The forces are balanced. Nobody would win!





4. Which skier would move down the mountain the fastest?
The one on ice - it's smoother so there will be less friction.
Explain your answer!

5. You

We should wear the colourful ones - they have more grip - that will make more friction.

Explain your answer!!!



A



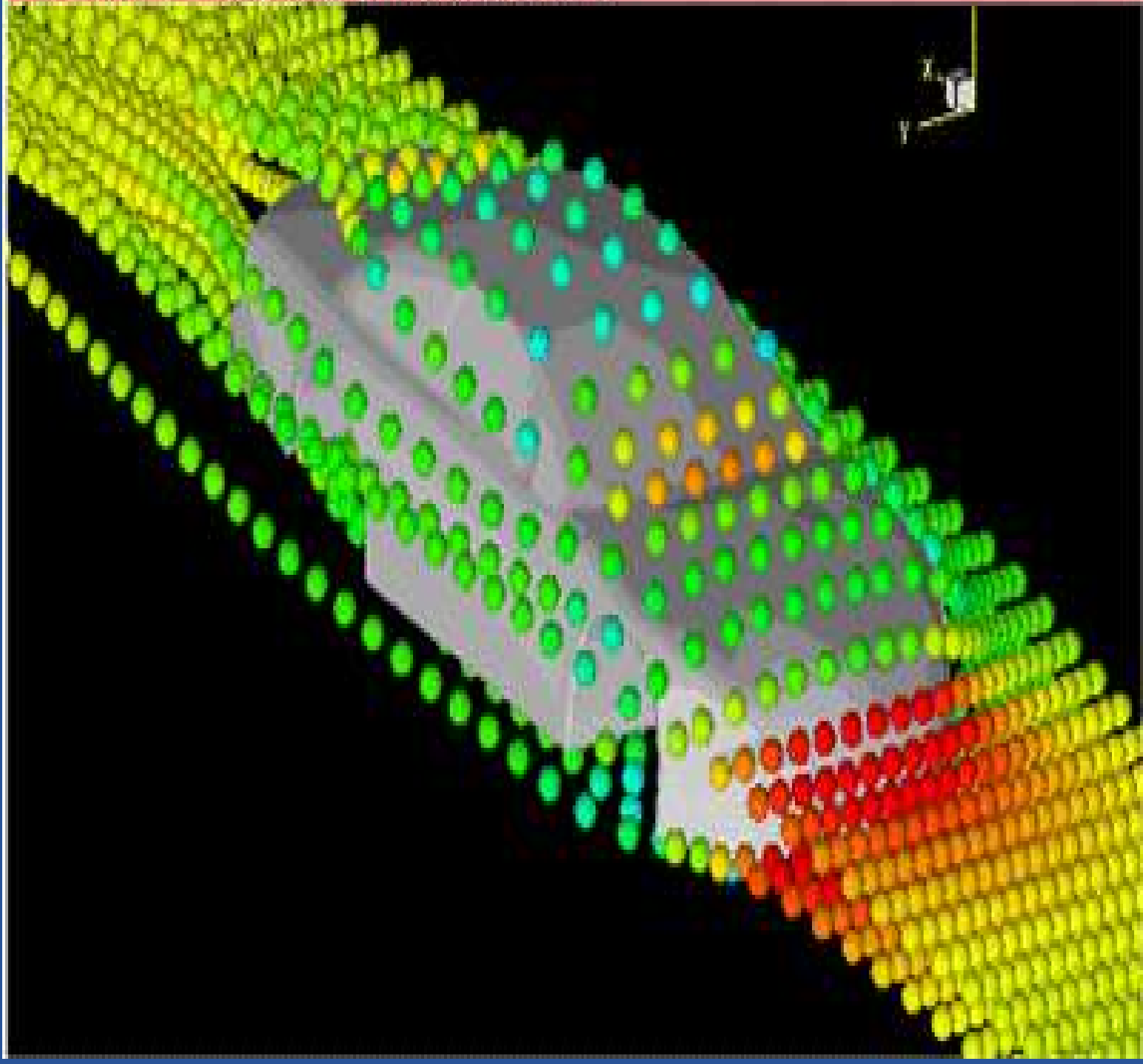
B

Review Time

Streamlining:

Curved , smooth
shapes are
streamlined.

They reduce air or
water resistance.



Review Time

Streamlining:

Large surfaces will
have more air
resistance.



So far we have reviewed:

- **Forces**
- **Force Arrows**
- **Explain yourself!**

**Now let's do the
Among Us
science quiz!**

