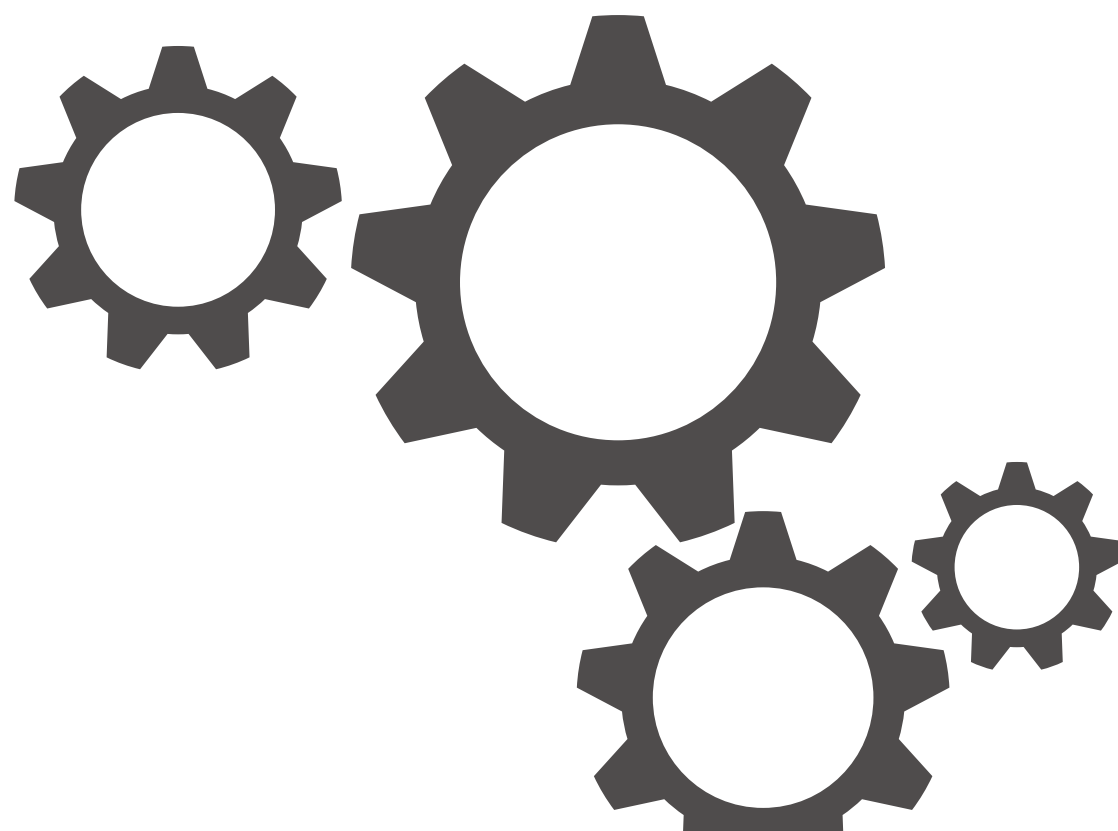


# เครื่องกลอย่างง่าย (Simple machines)

Presented by KruMes



“

**A SIMPLE MACHINE  
HAS FEW OR NO MOVING PARTS,  
MAKES WORK EASIER, AND  
REQUIRES LESS FORCE.**

”

# introduction



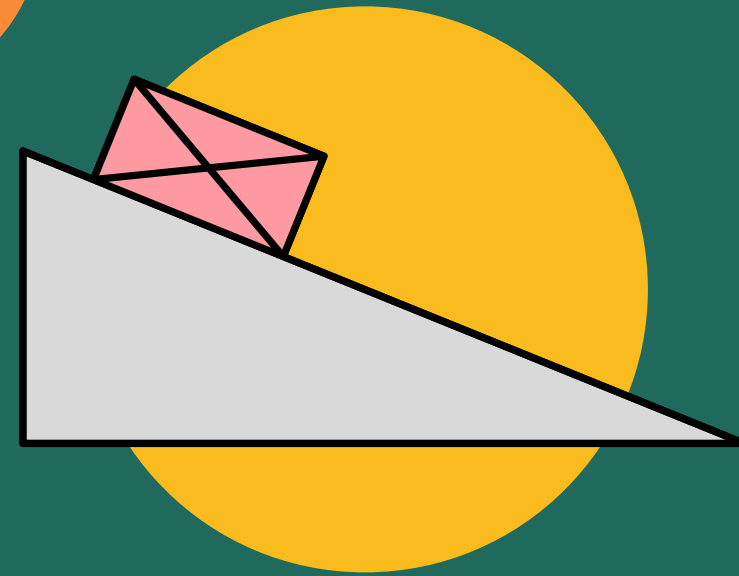
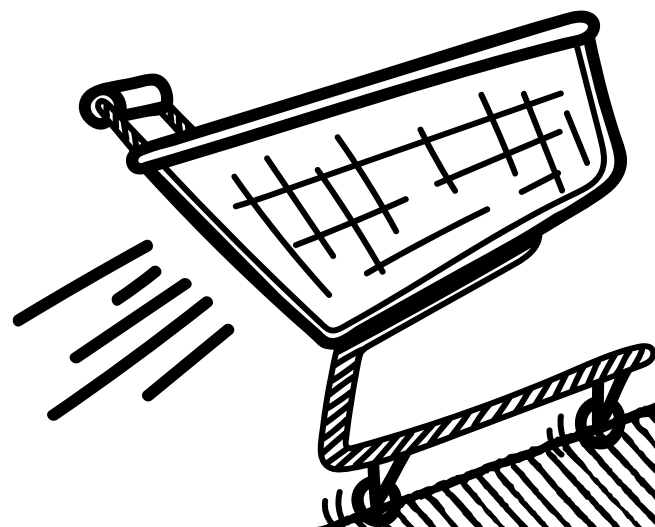
ถ้าเรายกวัตถุขึ้นในแนวตั้งโดยไม่ใช้เครื่องกล  
เราต้องออกแรงอย่างน้อย เท่ากับ น้ำหนักของวัตถุ

แต่ถ้าเราออกแรงโดยใช้เครื่องกล  
เพื่อยกวัตถุให้เคลื่อนที่ขึ้น พบว่า ออกแรงน้อยกว่าน้ำ  
หนักของวัตถุ

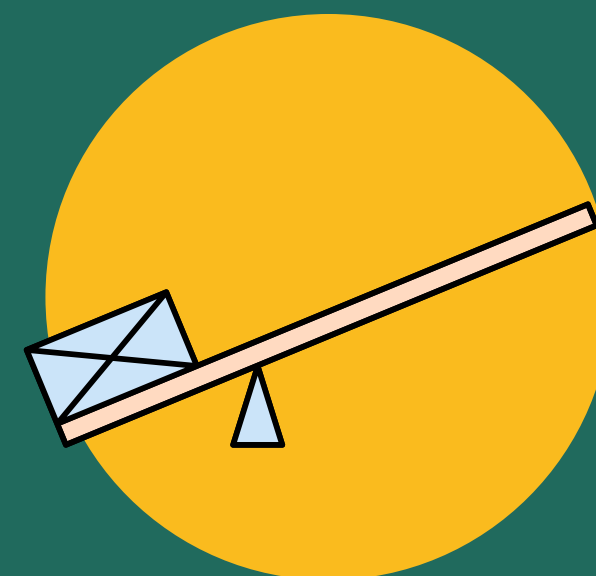
เป็นอุปกรณ์ที่ช่วยผ่อนแรง  
และอำนวยความสะดวกในการทำงาน



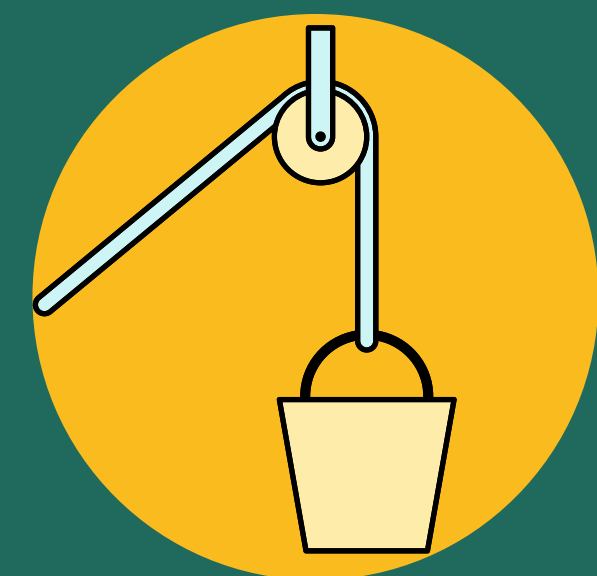
# เครื่องกลอย่างง่าย (Simple machines)



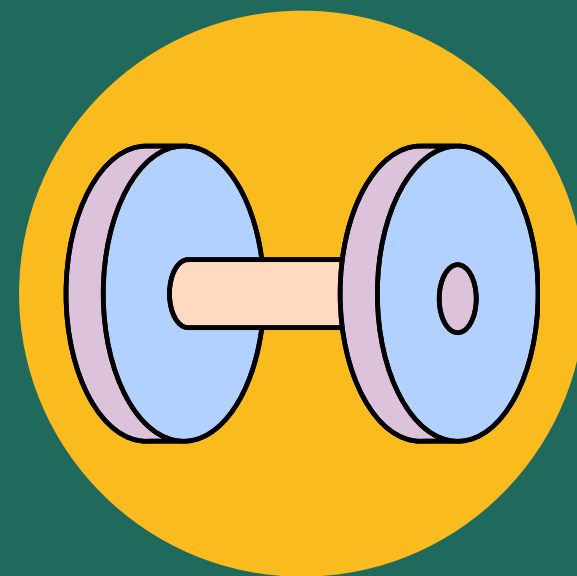
พื้นเอียง



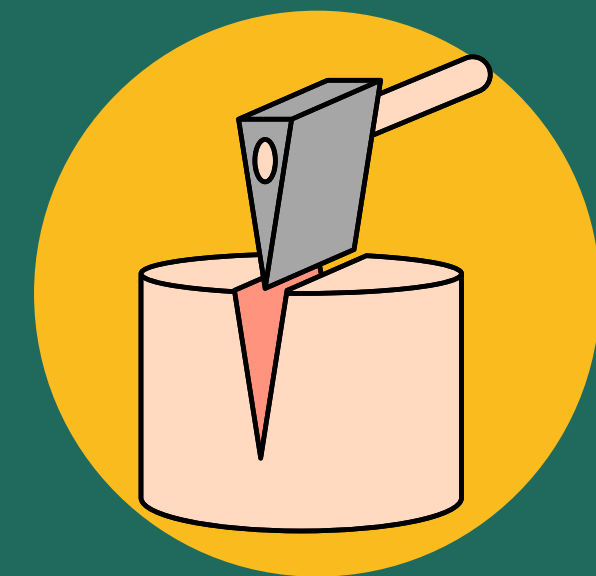
คาน



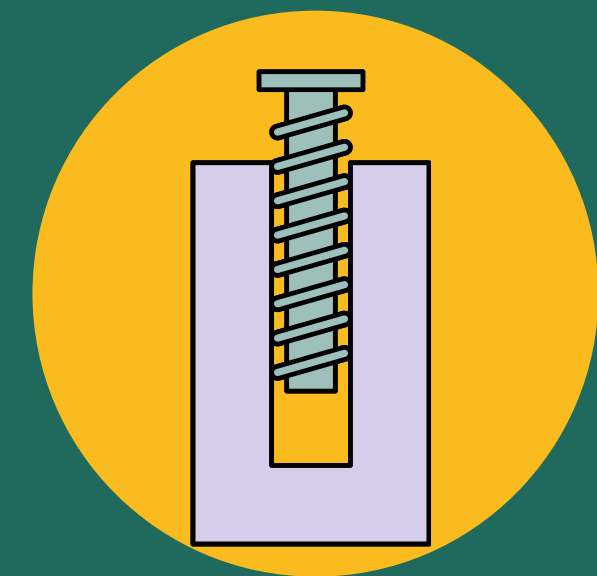
รอก



ล้อและเพลา



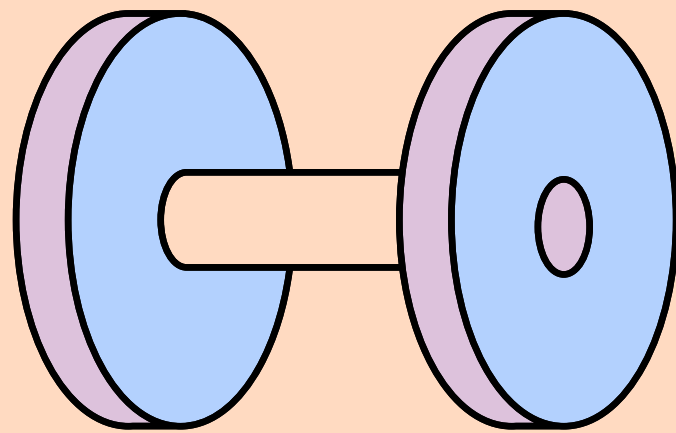
ลิ้ม



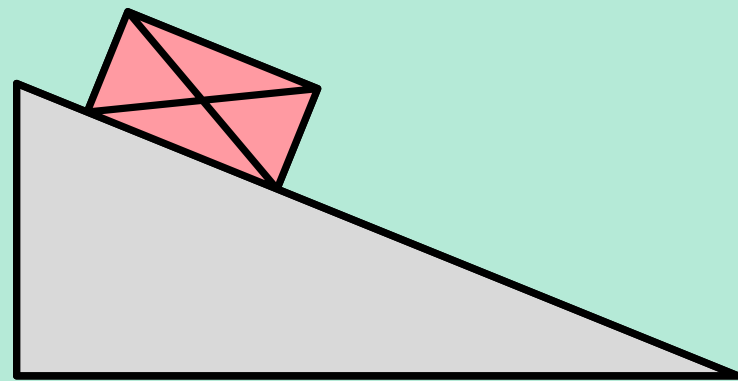
สกรู

# ถามเถอะ...อยากตอบ !!

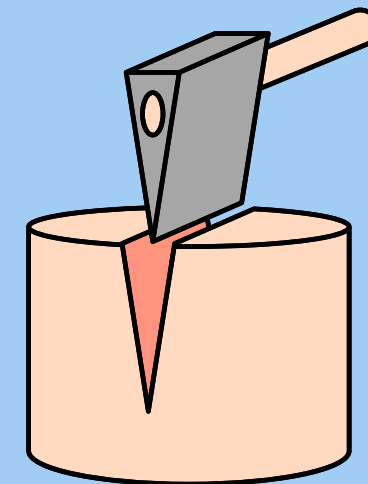
**WHEEL & AXLE**



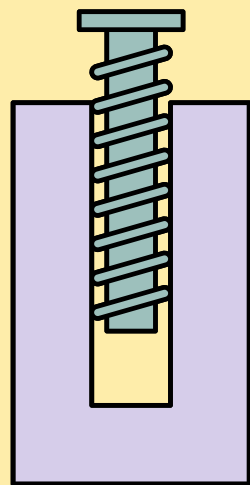
**INCLINED PLANE**



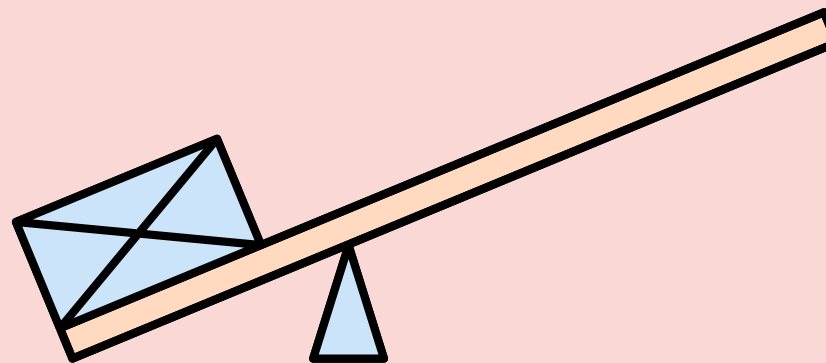
**WEDGE**



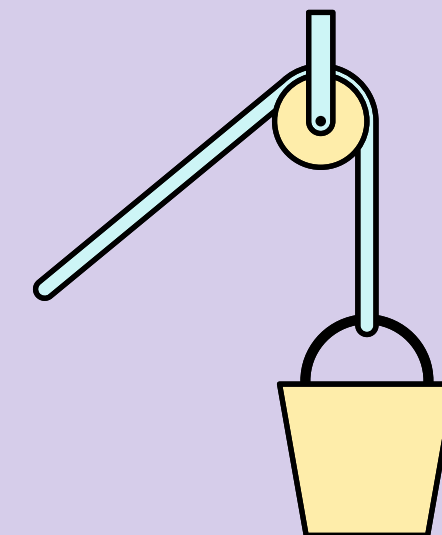
**SCREW**

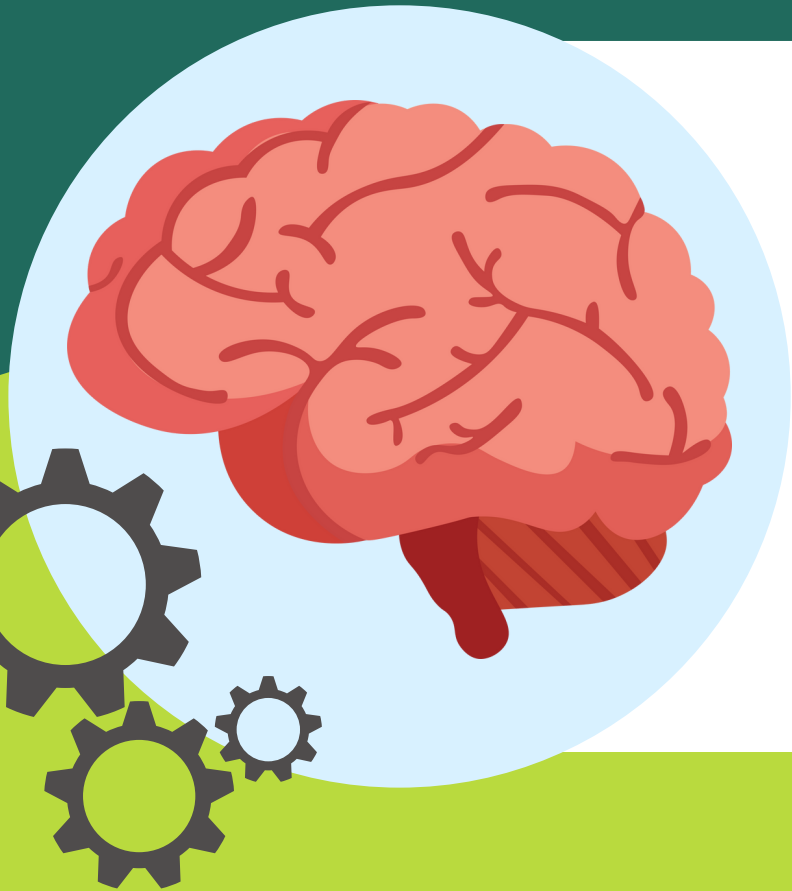


**LEVER**



**PULLEY**





## เครื่องกลในอุดมคติ

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งานที่ให้กับเครื่องกล = งานที่ได้จากเครื่องกล

## Wind Power

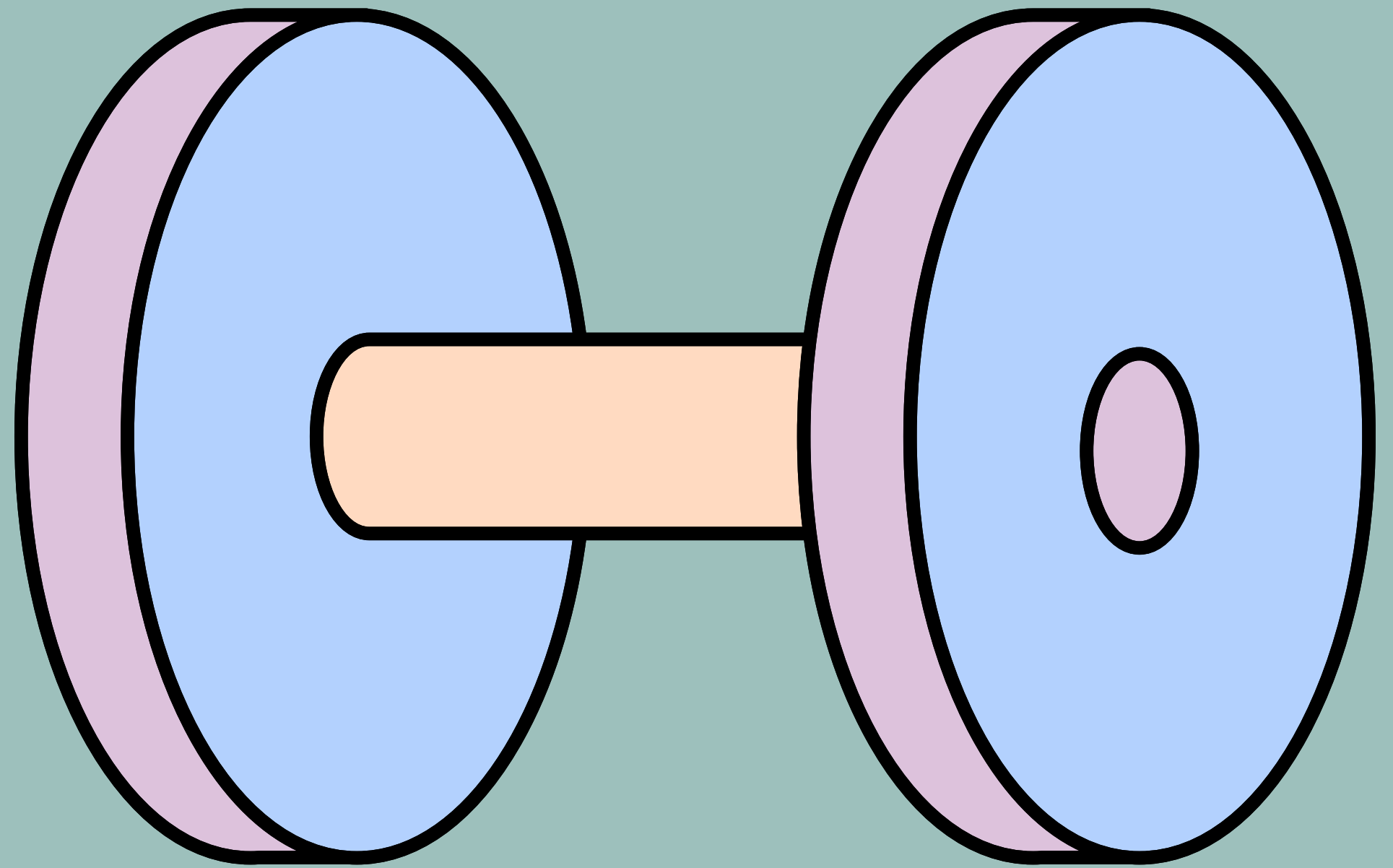
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Wind is moving air created as the sun heats the earth's surface. As long as the sun is shining, the wind remains an infinite, renewable resource.



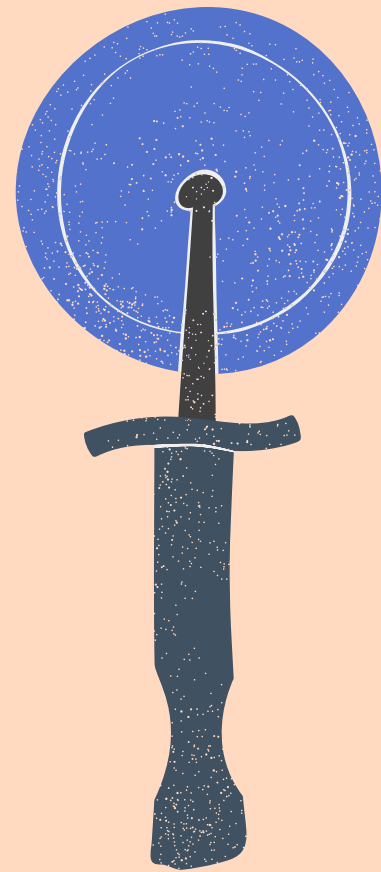
# WHEEL & AXLE

The axle runs  
through the  
centre of the  
wheel.



# EXAMPLES OF A WHEEL & AXLE

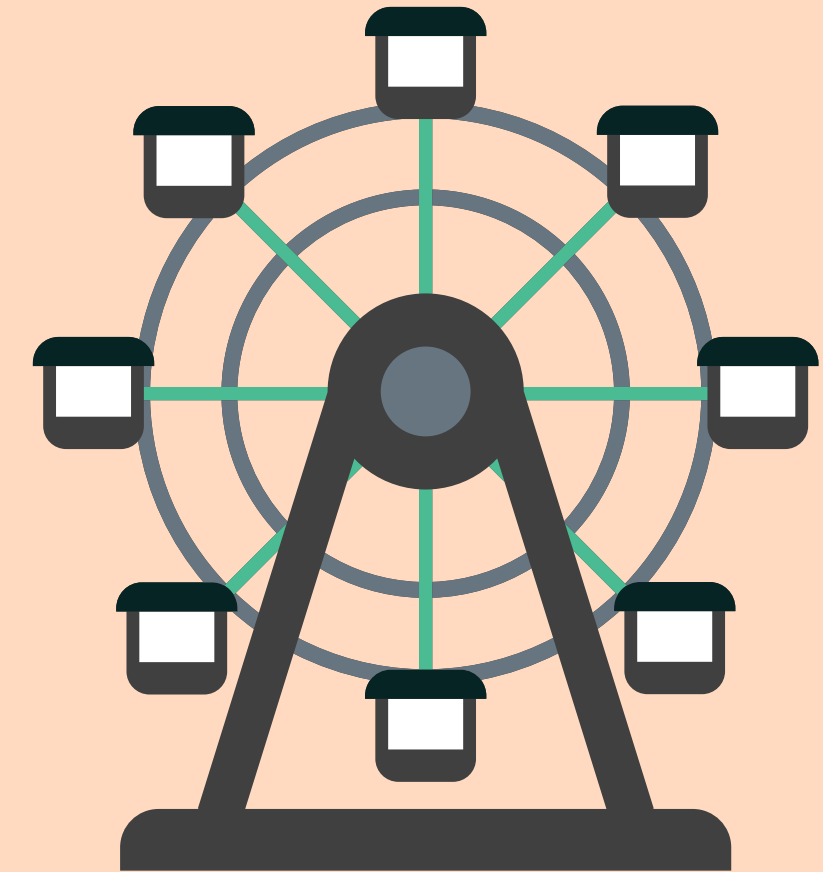
A wheel and axle can be used to move, or lift objects and people.



pizza cutter



bicycle

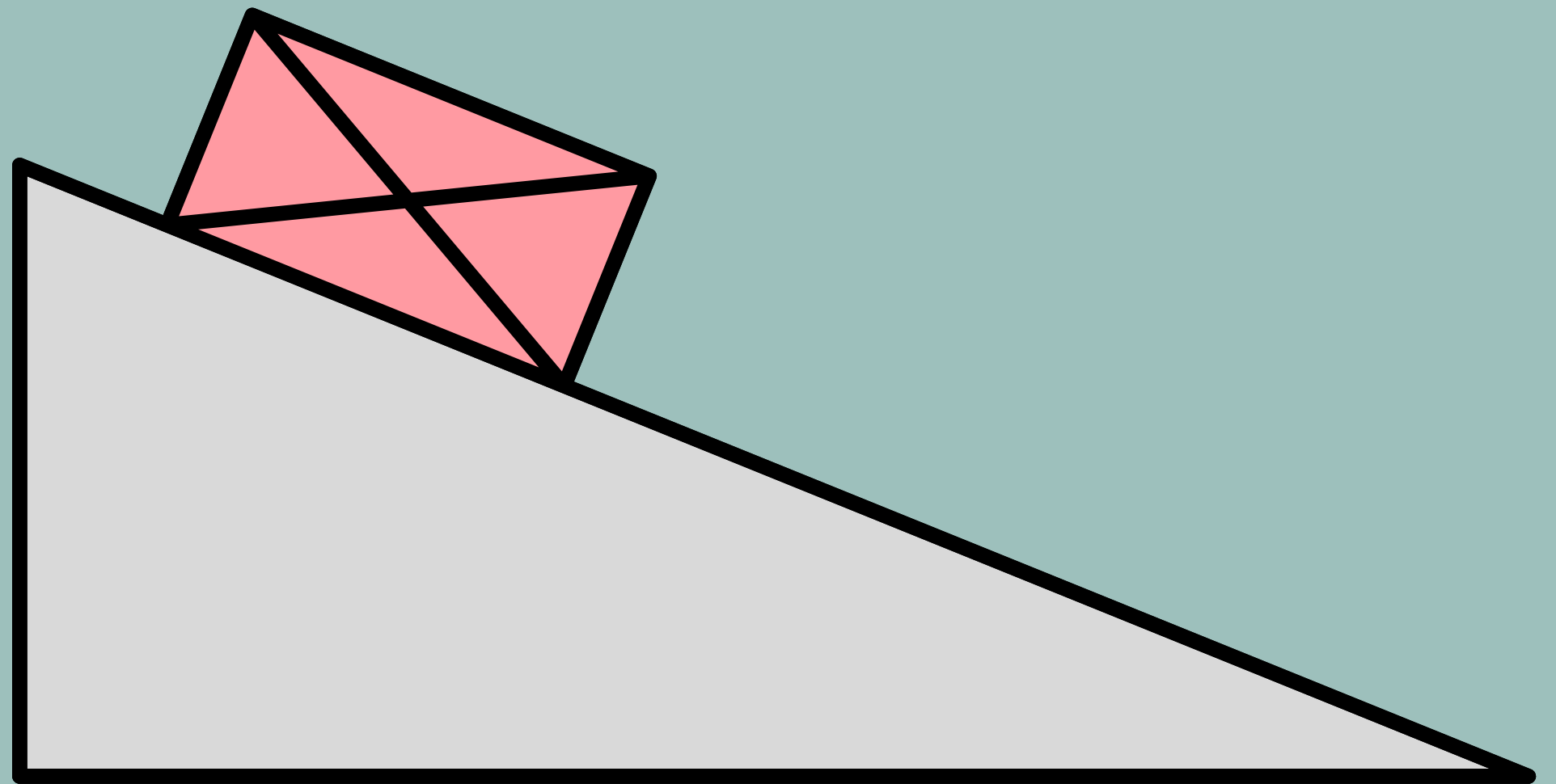


ferris wheel



# INCLINED PLANE

An inclined plane  
is a ramp.



# EXAMPLES OF AN INCLINED PLANE

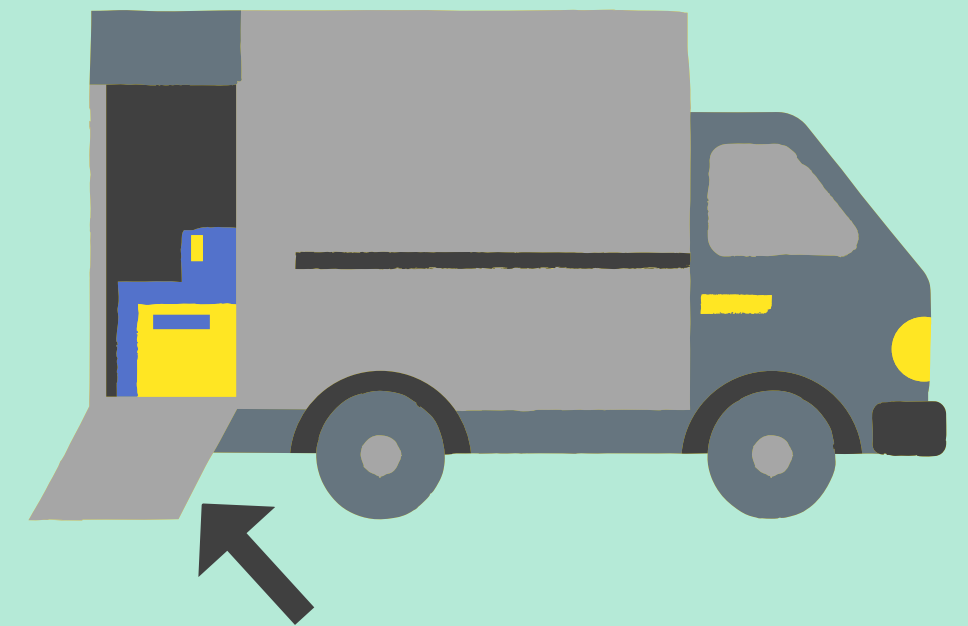
An inclined plane can be used to lower or raise objects and people.



roof



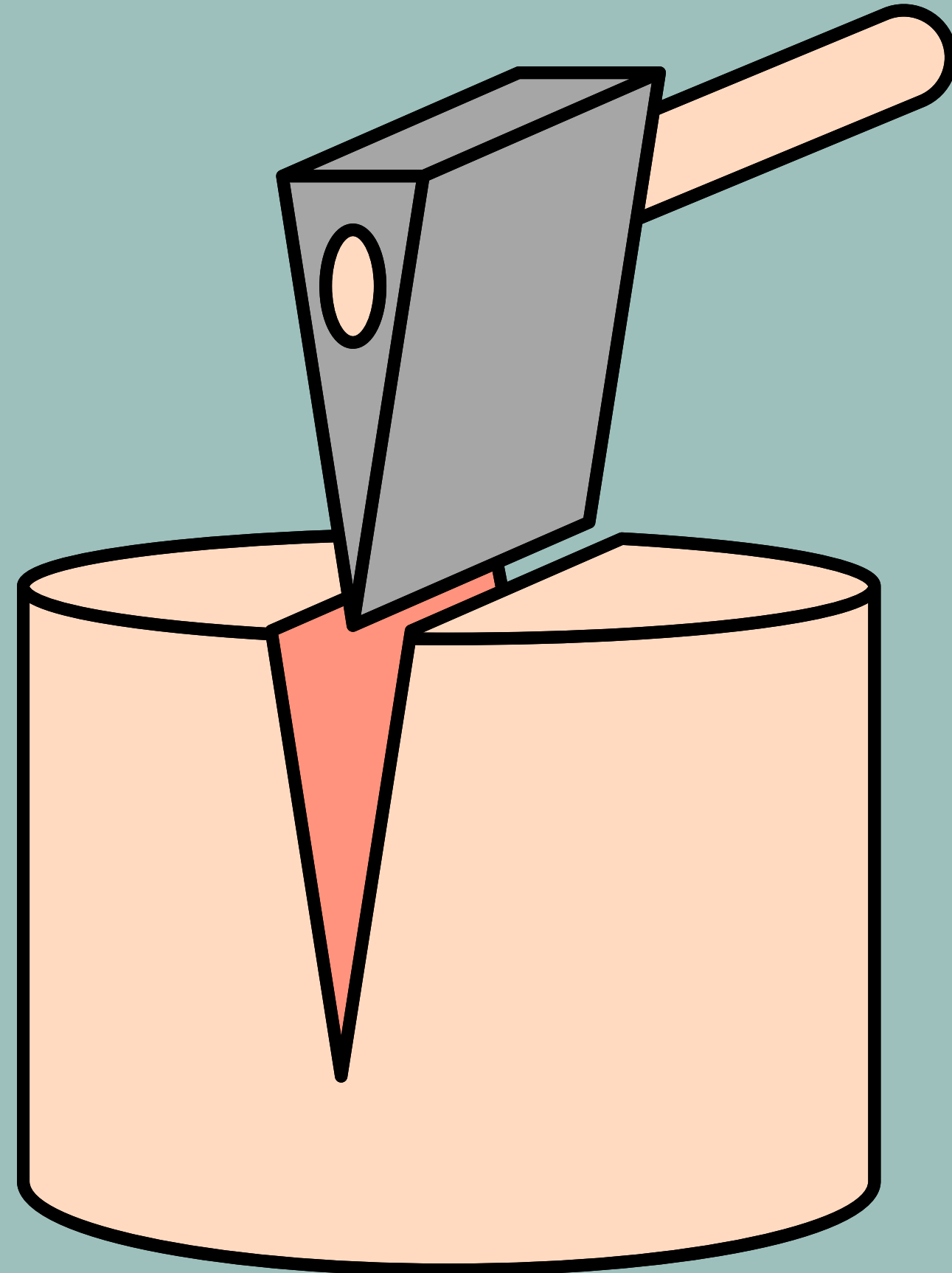
accessible ramp



truck ramp

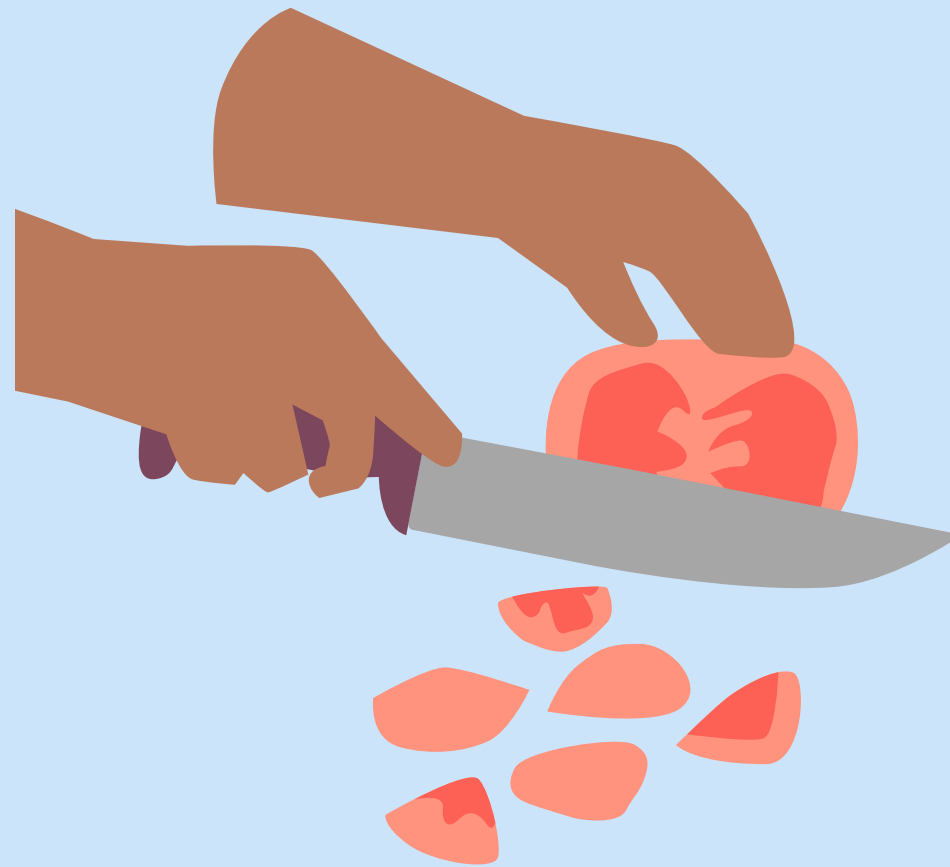
# WEDGE

A wedge is a double inclined plane.

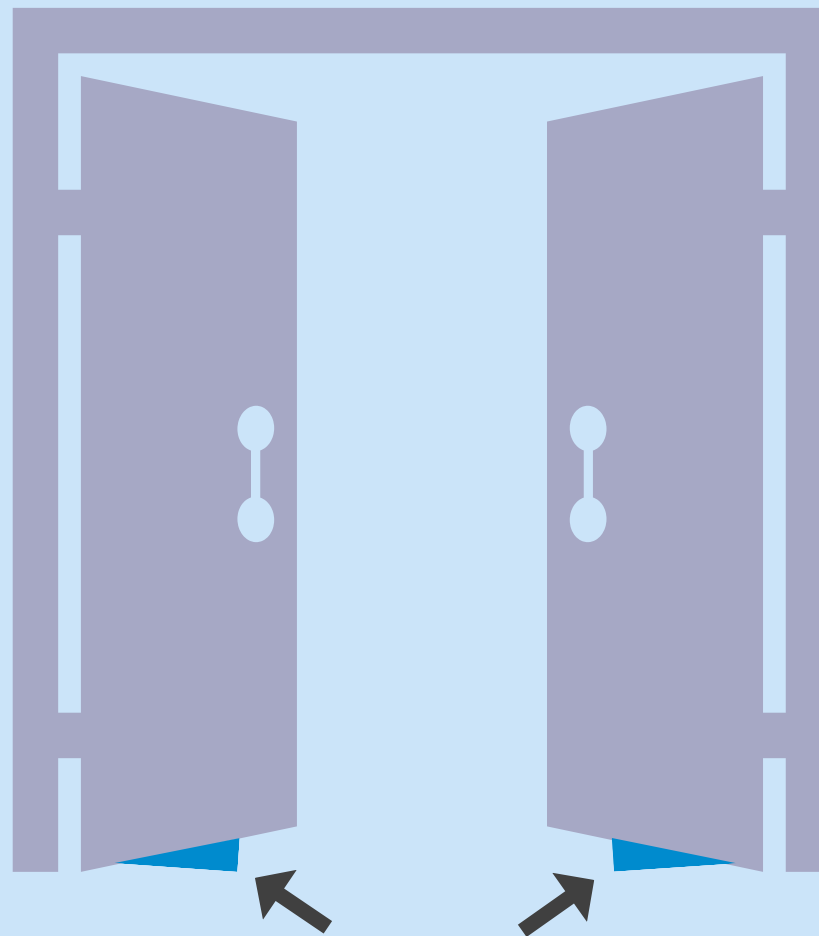


# EXAMPLES OF A WEDGE

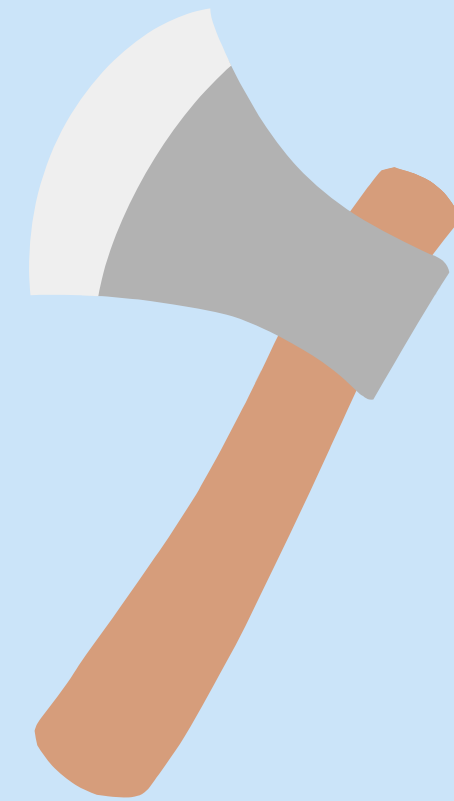
A wedge can be used to push two things apart, lift up an object, or hold an object in place.



knife



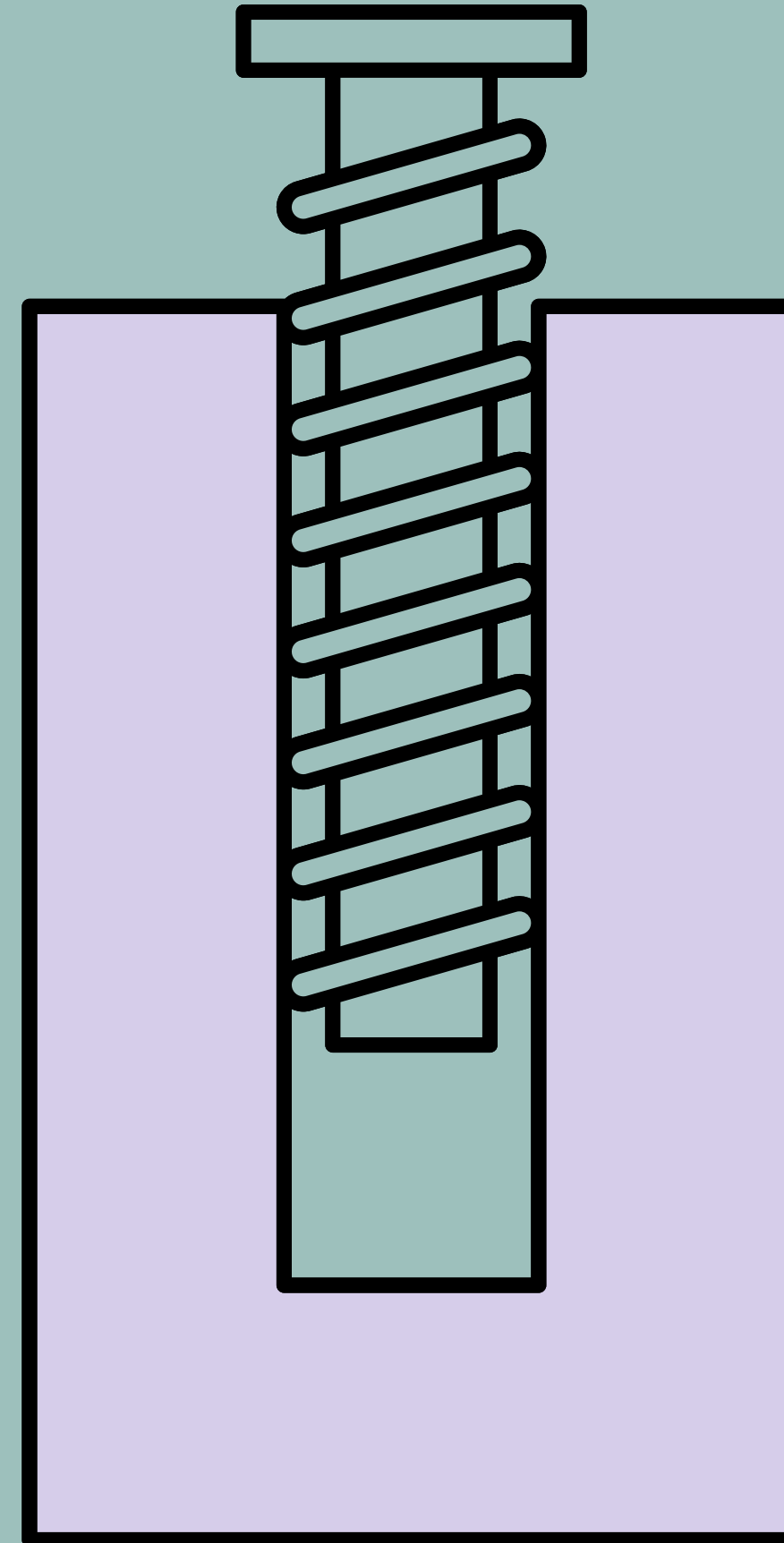
door stopper



axe

# SCREW

A screw is a special kind of inclined plane, wrapped around a pole.

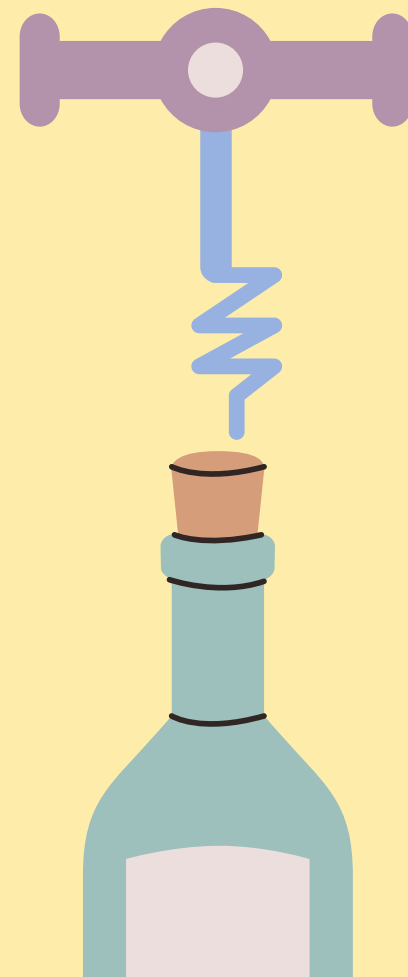


# EXAMPLES OF A SCREW

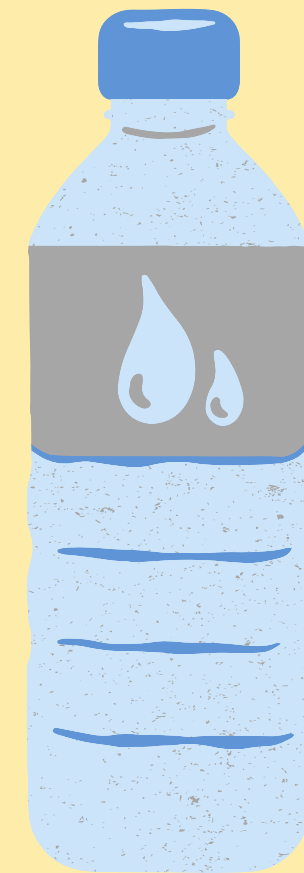
A screw can be used to lift things or hold them together.



light bulb



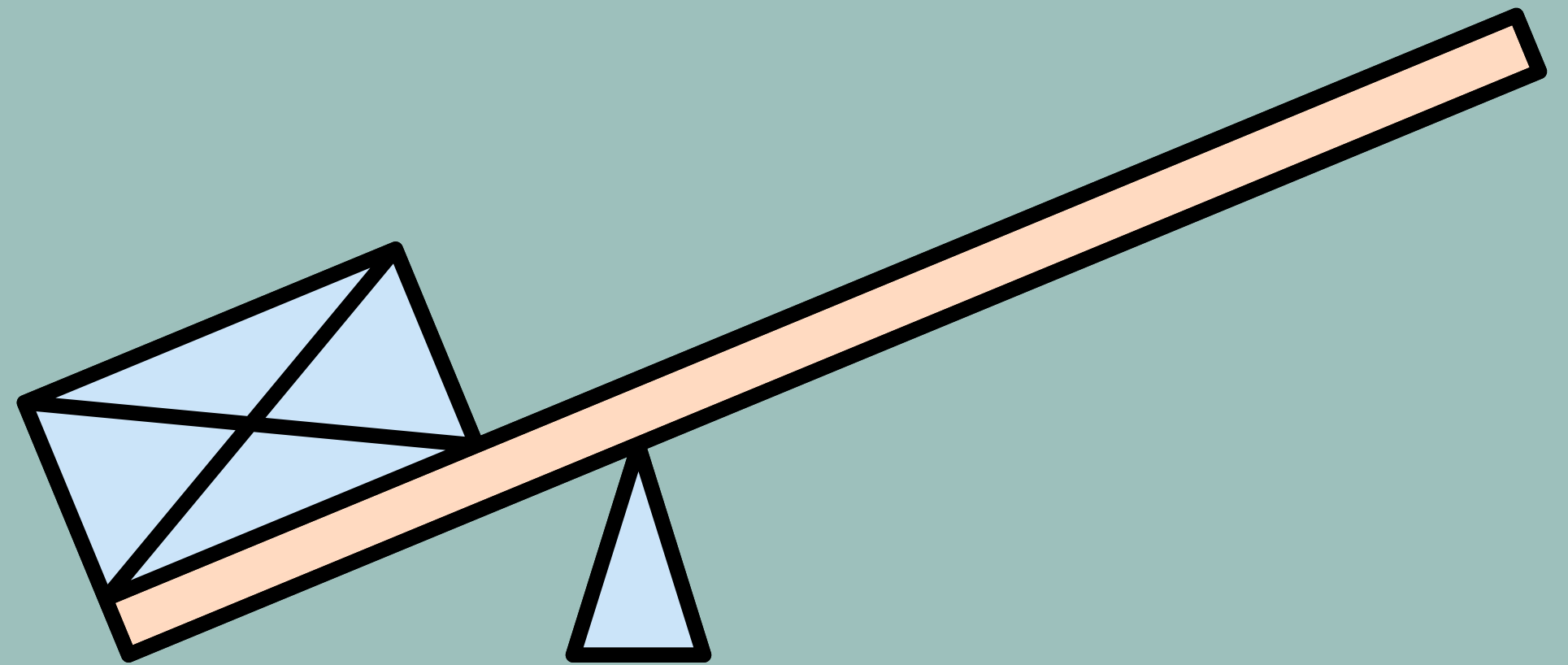
door stopper



bottle caps

# LEVER

A lever is a board or bar that rests on a support called a fulcrum.

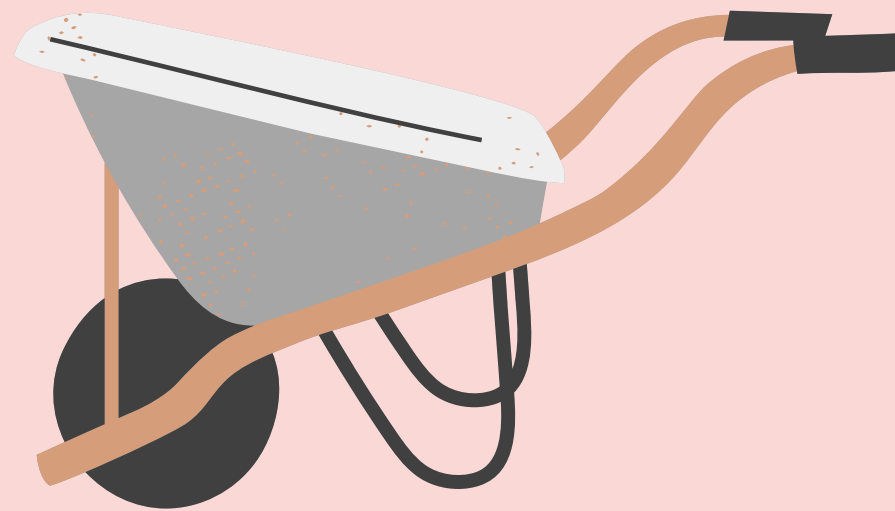


# EXAMPLES OF A LEVER

A lever can be used to lift or move things.



**see saw**



**wheelbarrow**

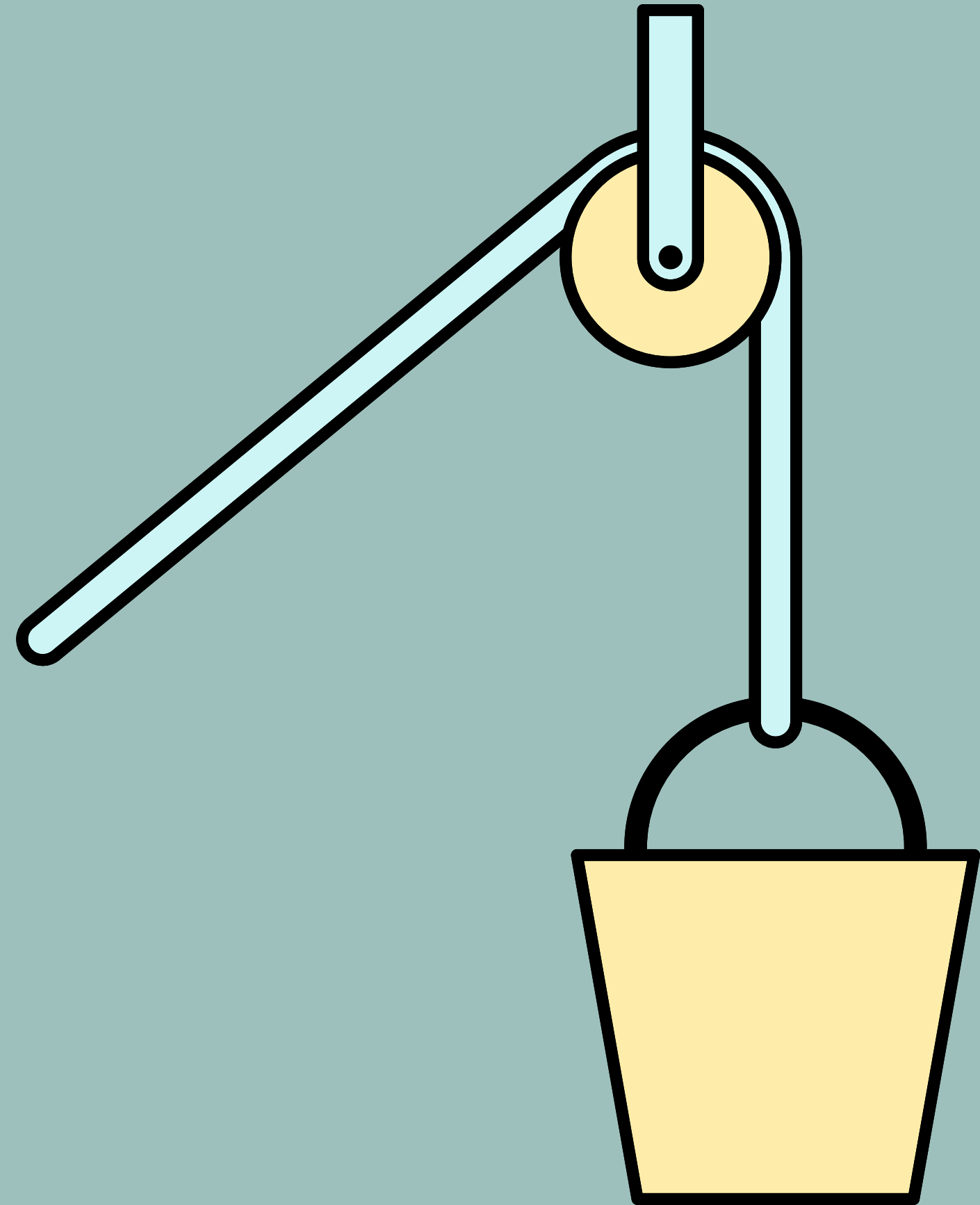


**balance scale**



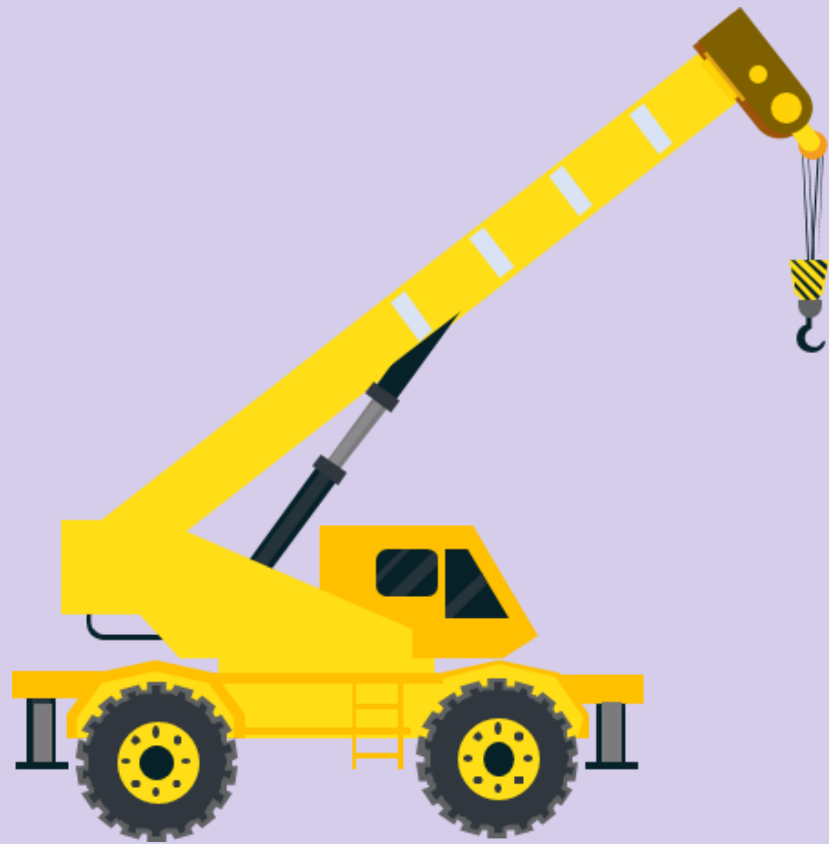
# PULLEY

A pulley is made with a wheel and a rope or cable.

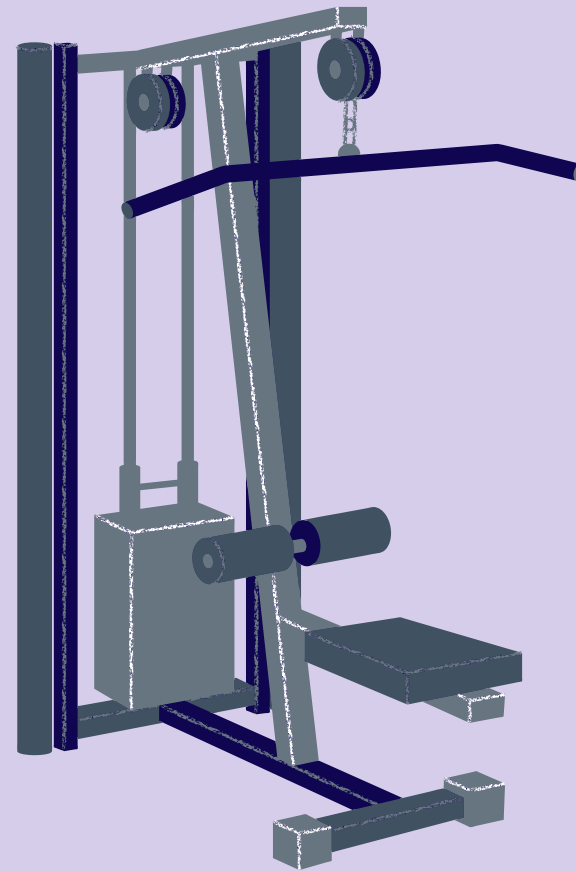


# EXAMPLES OF A PULLEY

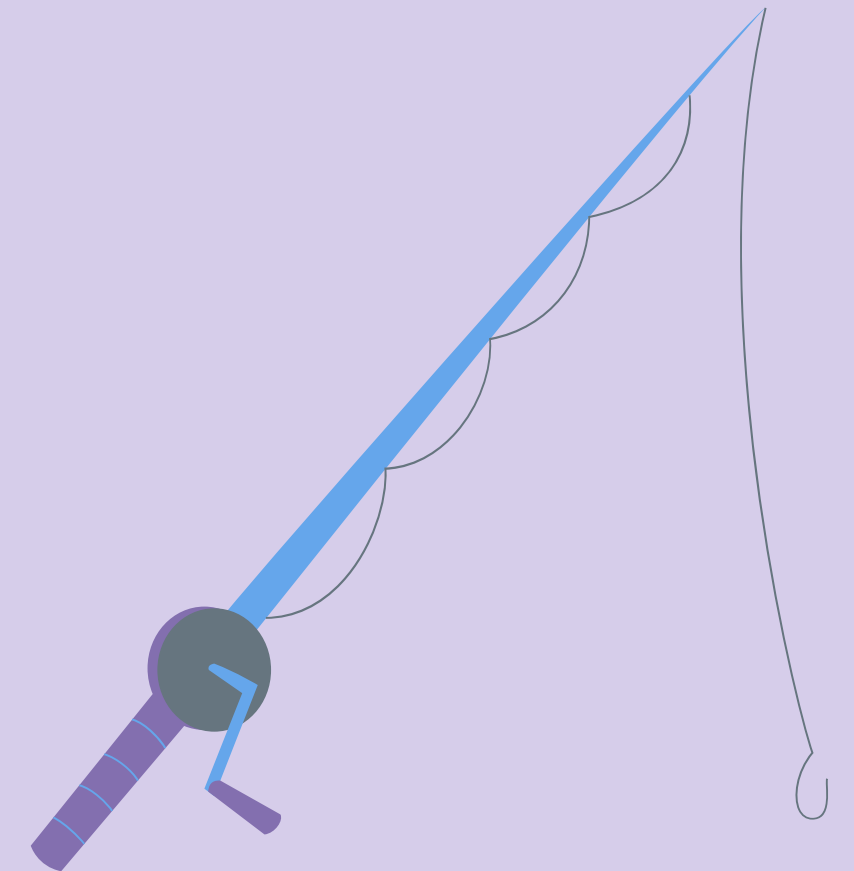
A pulley can be used to lift objects.



crane



exercise machine



fishing rod



**WHAT OTHER**

**SIMPLE MACHINES**

**CAN YOU THINK OF?**