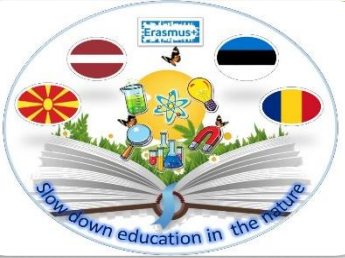


# Good practice

Slow down education in the nature

Erasmus+ KA229 project

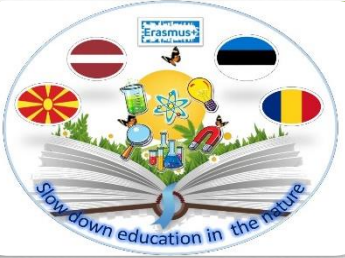




# General information

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- School –Stalgene Secondary School
- Country –Lavia
- Subject – Physics
- Topic - Simple Mechanics
- Teacher –Dalija Brige



# Simple Mechanics

- 
- Materials needed – A camera or smartphone, a log, a board
  - Surrounding - Courtyard, garden, close area



# Materials needed

For photos or videos

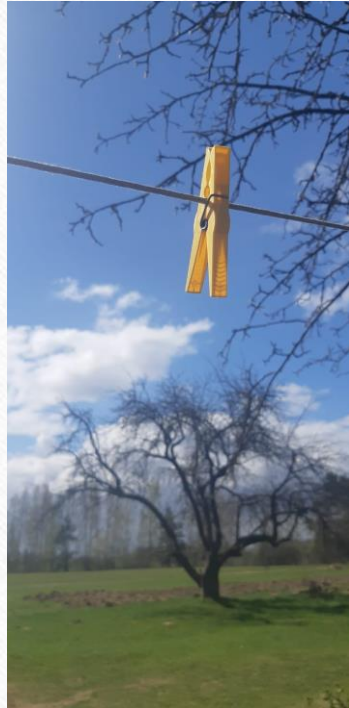


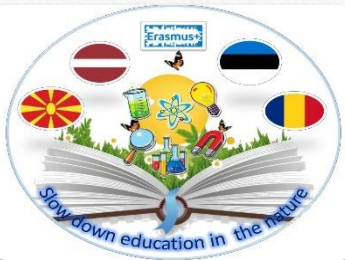
- For making a prototype of a lever



# Surroundings

- A park, a backyard e.c.





# Digital wal Padlet

padlet

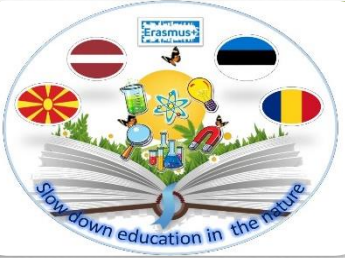
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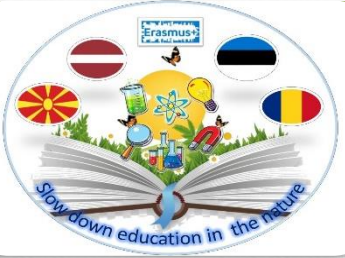
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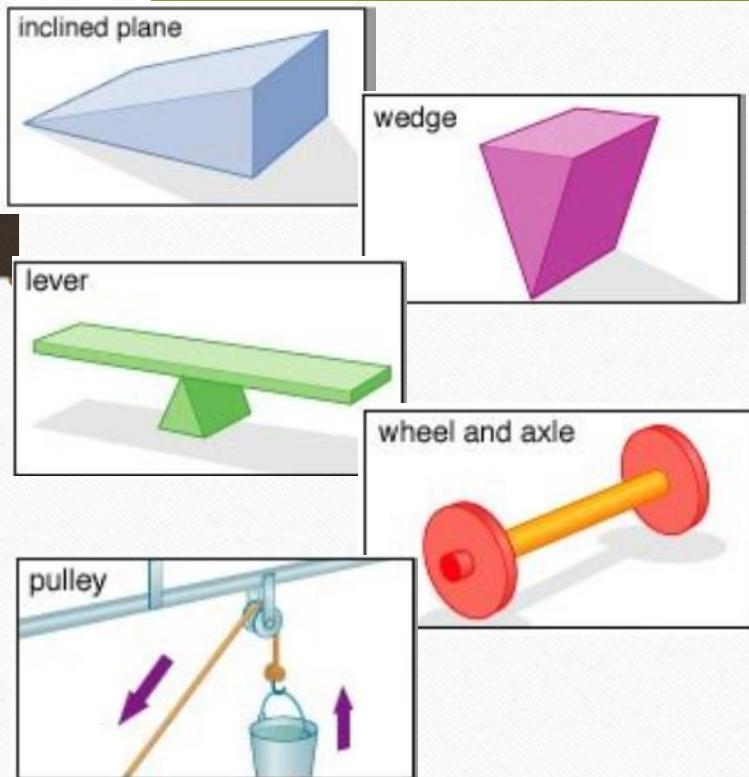


# Simple Mechanics

- 
- Aims- Recognise simple mechanisms, observe application of them in everyday life.



# What is what?

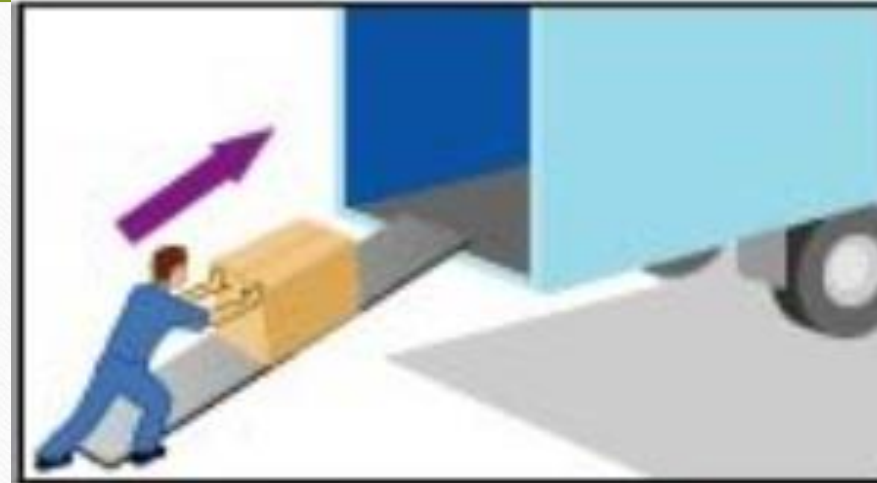
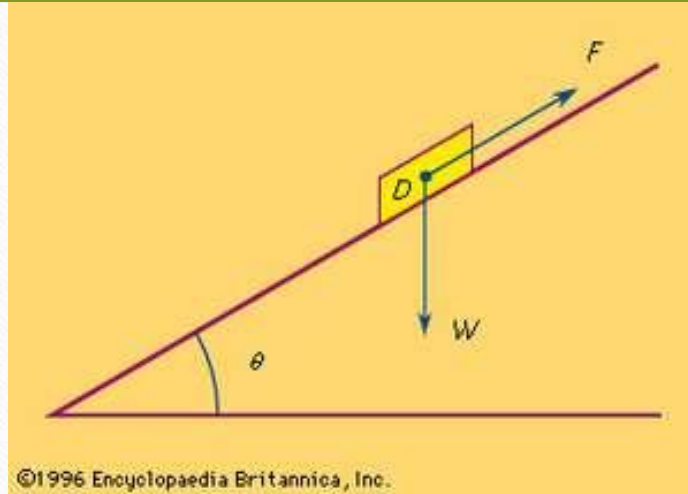


- Simple machine, any of several devices with few or no moving parts that are used to modify motion and the magnitude of a force in order to perform work.
- <https://www.britannica.com/technology/simple-machine>

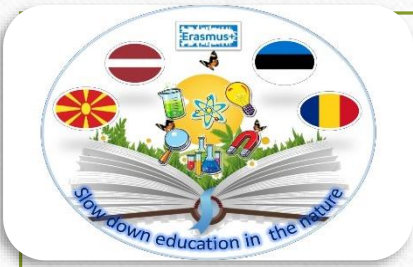




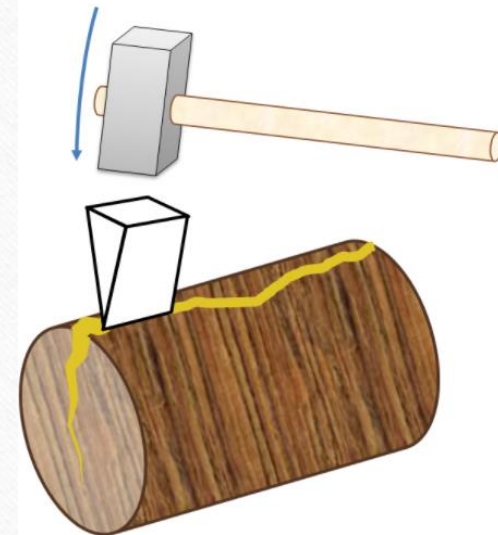
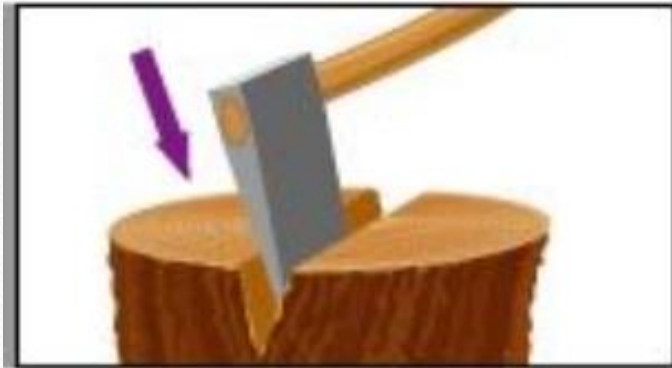
# Inclined plane



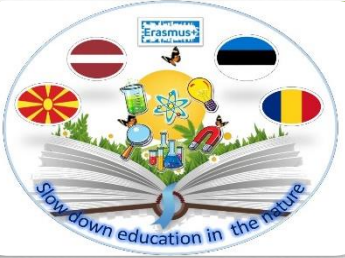
In this representation of an inclined plane,  $D$  represents a block to be moved up the plane,  $F$  represents the force required to move the block, and  $W$  represents the weight of the block.



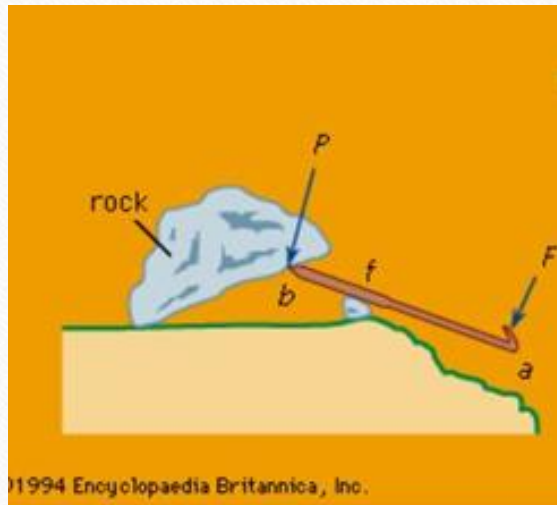
# Wedge



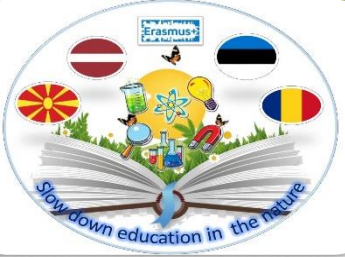
A wedge as a tool is used to push two things apart such as the blade of a sword and knife does when it cuts woods.



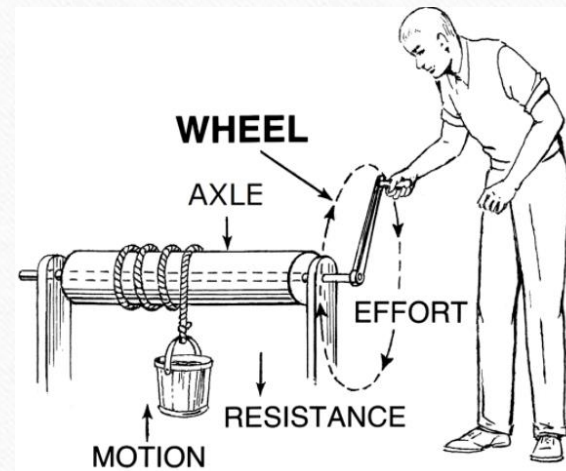
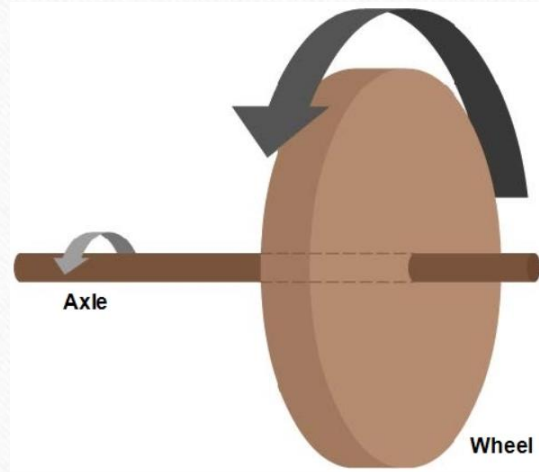
# Lever



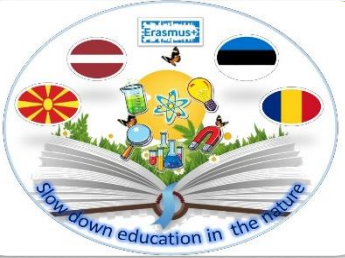
A crowbar, supported and turning freely on a fulcrum  $f$ , multiplies a downward force  $F$  applied at point  $a$  such that it can overcome the load  $P$  exerted by the mass of the rock at point  $b$ .



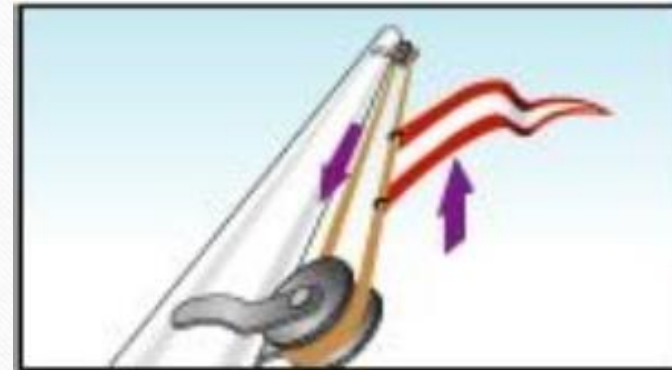
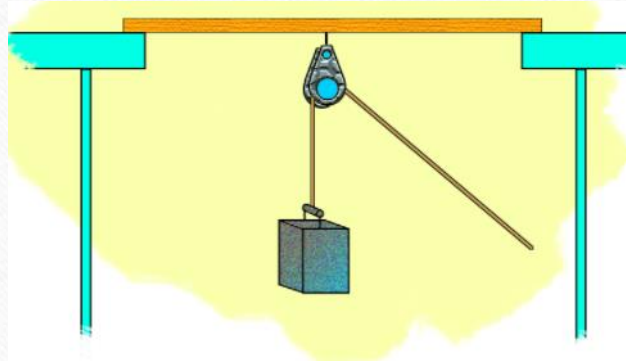
# Wheel and axle



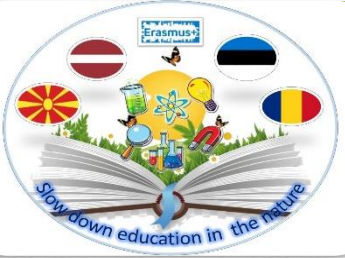
A wheel and axle is made up of a circular frame (the wheel) that revolves on a shaft or rod (the axle). In its earliest form it was probably used for raising weights or water buckets from wells.



# Pulley

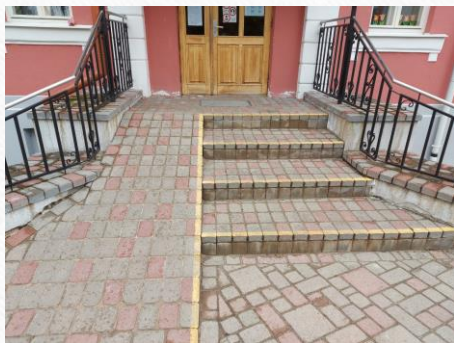


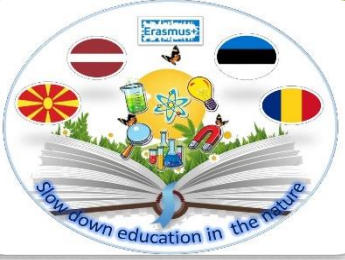
A pulley is a mechanical device that can be used to lift heavily objects more easily. Pulleys consist of a wheel that rotates on an **axle**—which is a rod through the center of the wheel—and a rope, cable, or chain.



# Activity 1

- Find simple mechanisms used in close proximity. Take pictures or short videos and post them on the digital wall.





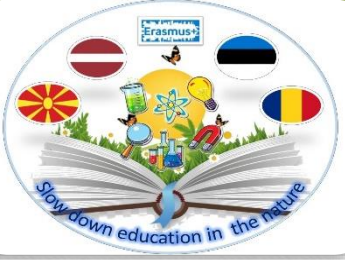
# Activity 2

- Create a lever prototype - a balance board from easily available materials



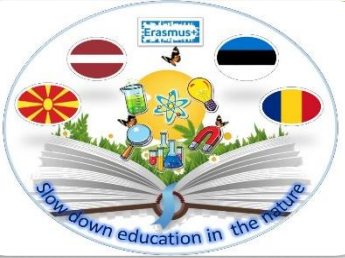






# Gallery





# Conclusions

- 
- Students liked this lesson, because it was interesting to see in real life what you learn about.
  - You can't do this task alone. To take photos or film you need to collaborate with someone.