Group name	Date
Group hume	Date

### WATER AND ROCKS

#### DID YOU KNOW ...

- There are many smaller erratic boulders, larger boulders and giant boulders in Estonia.
  When it comes to giant boulders, Estonia is the richest country in Europe: there are 87 giant boulders here and only 5 are situated elsewhere
- 68.7% of the fresh water on Earth is trapped in glaciers.
- The Nile River, located in Africa, is listed as being 6,853 kilometers long, and is hence commonly considered to be the longest river in the world.
- The arm span to height ratio is one to one: your arm span goes once into your height.

#### **TASK**

Old estonians used many indirect measurements to measure everyday items. Try the same method to measure a boulder (or it may also be a monument made of stone).

- 1. Measure a boulder (a monument made of stone) circumference with outstretched arms.
- 2. Calculate the diameter of the boulder (a monument made of stone).

$$C=2\times\pi\times r=\pi\times d$$

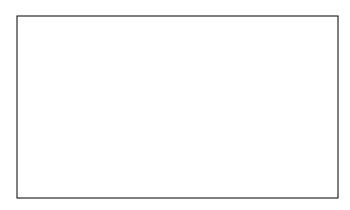




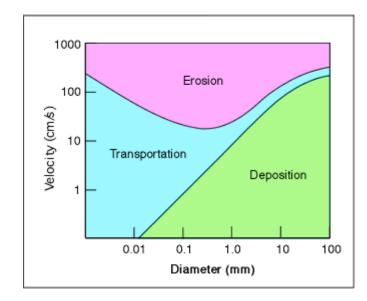
## PRACTICAL TASK

How fast the water flows?

- 1. Find something that floats on water.
- 2. Fixate 10 m long sections start and finish on the river.
- 3. Take time, how long it takes your object to travel 10 m distance on the river
- 4. Calculate the velocity of the river



Speed 
$$=$$
  $\frac{\text{Distance}}{\text{Time}}$ 



# **QUESTION**

What you think, is it practical to measure length in indirect measurements?

How fast the water flow must be to carry your measured boulder?

Take pictures, short videos of each task you are doing and upload them in the Padlet.

https://padlet.com/katrin\_vaheoja/science



