

LIMEKILN – „JAPJENICA”

PUČIŠĆA ELEMENTARY SCHOOL



TOPIC: LIMEKILN (*JAPJENICA*) – producing lime in traditional way

OBJECTIVES:

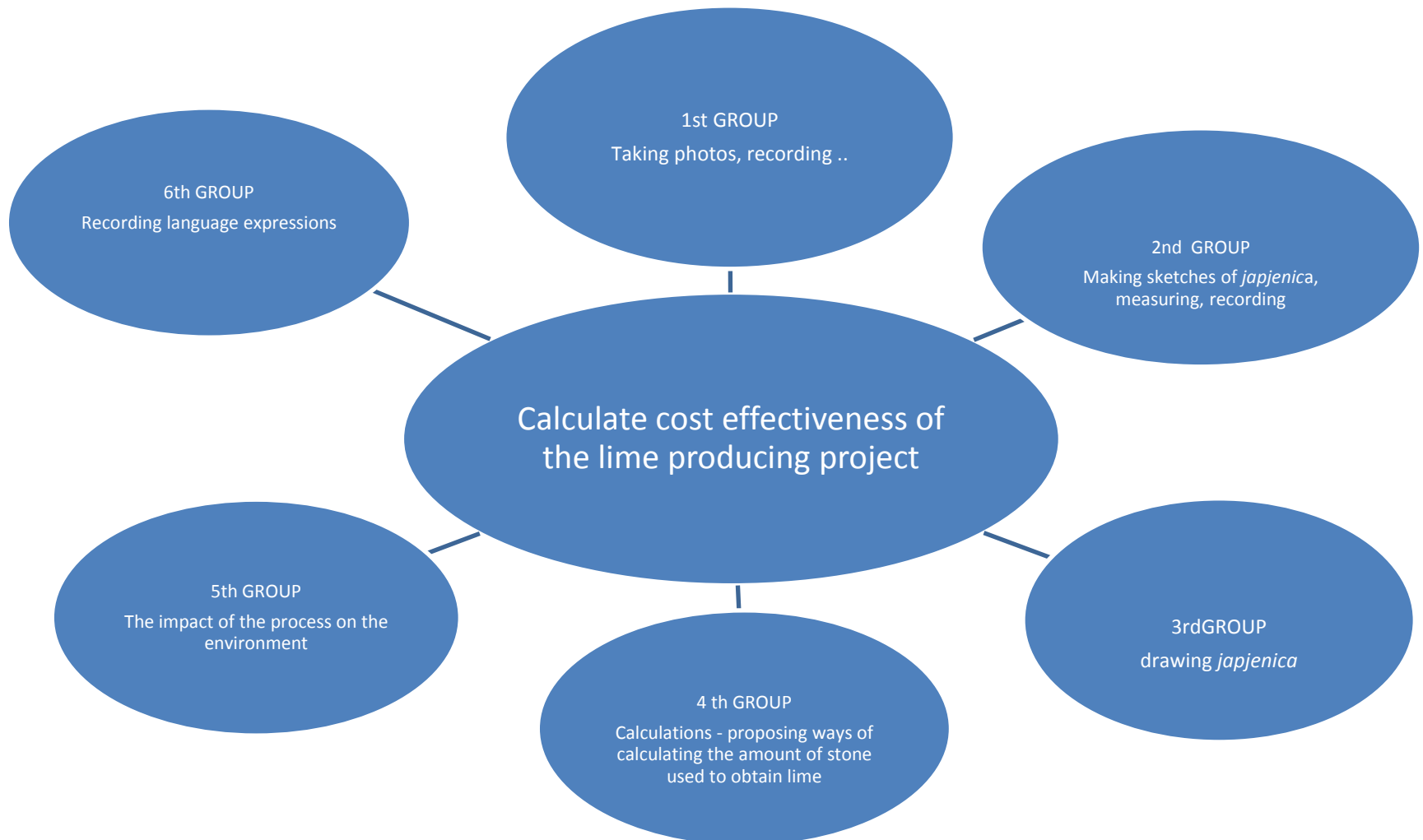
- Get acquainted with the traditional way of producing lime
- Get acquainted with use of lime in everyday life
- Notice the elements essential for the selection of the construction site of limekiln
- Calculate the amount of time and human labor needed to produce lime
- Calculate the amount of quicklime obtained, the amount of water used to quench the lime and the amount of lime in this limekiln
- Calculate the cost-effectiveness of lime production in this way
- Notice the impact of burning lime on the environment
- Participate in the construction of 'japjenica'
- Apply acquired knowledge in everyday life

Problem assignment - creative work after processing information:

- Calculation of the amount of quicklime obtained, the amount of water used in extinguishing the lime and the amount of lime in this limekiln
- Calculate the cost-effectiveness of the production process lime in this way
- Creating a model model (with the help of photos and field work)

FIELD WORK

The students were divided into 6 groups. Each group has its own task.





Field work

Measuring radius of
limekiln



**Photographing work
stages**

**Participating in
construction**





Using hand tools - " divider" to determine the distance of the final wall around " japjenica"

Information processing (in the classroom)

Upon arriving in the classroom, students analyze the collected data (photographs, drawings, sketches, measures, calculations).

Each group, under the guidance of lider, discuss the data collected, complete their drawings, calculations, etc..

Conclusion of data processing: amount of work, effort, time and materials used in the process of lime production in the traditional way. This form of production is too expensive and uncompetitive in today's market!



Mind map

Calculations





Drowings of
limekiln!



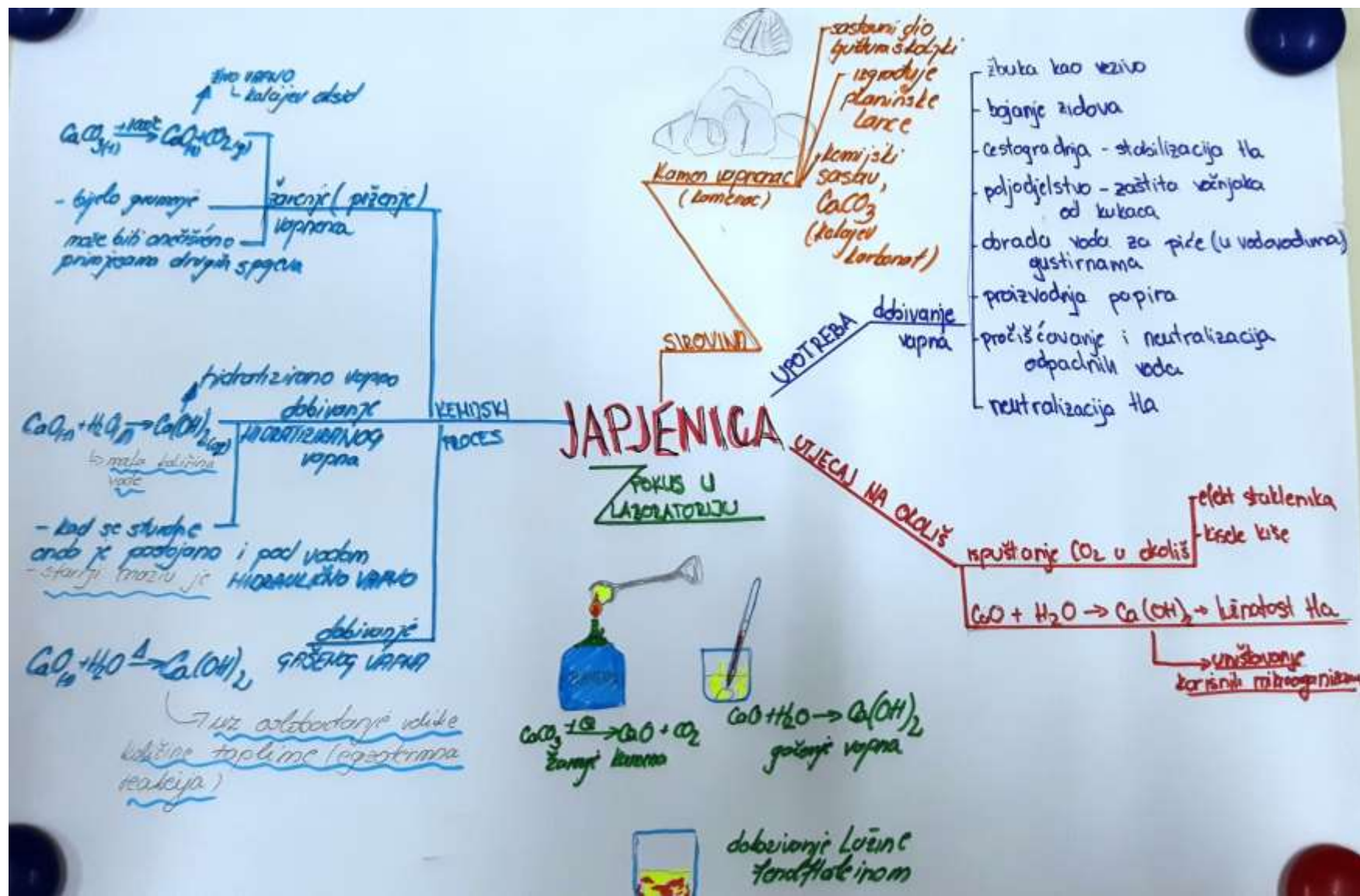
Traditional speech...



**Making sketches with
measures**



The results of the work in the classroom





RADLIHILAH / JURE

[illegible]

Radi: Zorana V, Antonela Š, Denis M

JAPJENICA

-IZRAČUNI-

$$m(\text{konkretna}) = \rho(\text{konkretna}) \cdot V(\text{konkretna})$$

$$\rho(\text{konkretna}) = 2500 \frac{\text{kg}}{\text{m}^3}$$

$$V(\text{konkretna}) = V(\text{vanjska}) + V(\text{unjska})$$

$$= X^2 \pi \cdot h_1 + r^2 \pi \cdot \frac{h_2}{3}$$

$$= 0.8^2 \cdot 3.14 \cdot 1.24 + 1.5^2 \cdot 3.14 \cdot \frac{0.24}{3}$$

$$= 3.14 (0.8^2 \cdot 1.24 + 1.5^2 \cdot 0.12)$$

$$= 3.14 (0.76 + 1.24 + 2.25 \cdot 0.12)$$

$$= 3.14 (0.94 + 0.24)$$

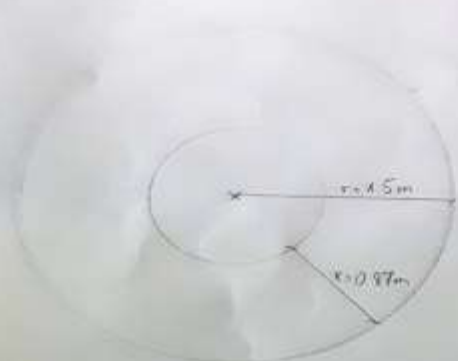
$$= 3.14 \cdot 1.24$$

$$= 3.89 \text{ m}^3$$

$V(\text{voljta})$ - zadržavanje
održavanje

$$m(\text{konkretna}) = 2500 \frac{\text{kg}}{\text{m}^3} \cdot 3.89 \text{ m}^3$$

$$= 9725 \text{ kg}$$



2500 kg/m³

$$m(\text{konkretna}) = m(\text{konkretna}) \cdot 3.2\%$$

$$= 9725 \text{ kg} \cdot 3.2\%$$

$$= 312 \text{ kg}$$

2500 kg/m³

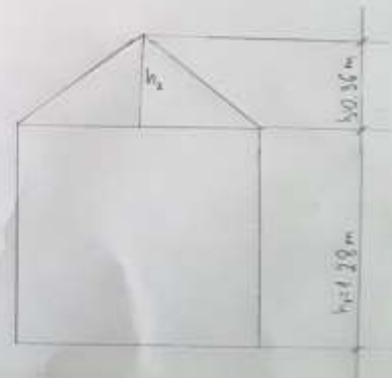
$$2500 \text{ kg} \Rightarrow 9725 \text{ kg}$$

$$9725 \text{ kg} \Rightarrow m(\text{konkretna})$$

$$2500 \text{ kg} \cdot m(\text{konkretna}) = 9725 \text{ kg}$$

$$m(\text{konkretna}) = \frac{9725 \text{ kg} \cdot 2500 \text{ kg}}{2500 \text{ kg}}$$

$$m(\text{konkretna}) = 312 \text{ kg}$$



Radilo: Nena, Vukobila, Markovica, Divo i Toma

Stranica broj 100% ispravno, rezultat na zadatku 100% i
20.8

Barba Juze govori

Emuladno zemlje ove! Vi de osovina ove dezate, na samim
svit ustaje!

Moča, moča za gozon! Doj kornulu! Daj to zemje!

Doj stingu! Ne tu, oni balun. Hol moča, bacij to!

Tumba, tumba tu stingu. Mlada mame!

Vamo vo va potumbat!

Uklon ovo, tumba vamo, murelg! Sol gjustig!

Reko san stinge, ma jos vragu jedna ne duosa

A, „Majo gradi, karmena mu nema“!

Daj to vamo, onu boc inggo i onda raspi.

Sal cemo stingu okdo, a vuod smo zapacali.

Da govorin i ne govorin sve mi duojde na isto, niko ne badeje.

Di mi je no bluza, u njumon mu je lopis.

Singaj cemo lopisen i onda cemo zaplat.

Crtu cemo singaj masinuron.

Okrijen tu stingu, naka ne bude na ciru.

Turni to tamo, vis da padoš priko lega.

Boc jedne stingu ispod da je u livelu.

Ejumbin.

Sal čemo Lolo jargenice ucenit kompas

Star treso masini po potavnos

Moti, tip to capoj, za ti mislis da ti je motika nativ pero.

Dog, dog stinge! Aha vij ca ti murel govori.

Smyj to do na vrata Bula, buta stinge tamo

Dog drugu, vis da vo imo druob. Sal čemo zaklinovat

Ajmo narode!

Star mi vamo pol noge da imon stinge do rukie.

Dog mlit, nimon ništa, njonci za orih razbit.

Ozmaroj to bokun, inkunjoj s tima grubima.

Dotav to, tu san stinge ostavi za špalu.

Tu ugrad u neutra, neka njon je mozak vamo vonka.

Klinoj, klinoj i dog zemje, nimo ništa bez zemje

Ajmo narode!

Information processing in class

1st task:

Perform the experiment - burning the limestone
- and determine how much water is consumed
for extinguishing lime!

2nd task:

Calculate how much you would get Ca(OH)_2
from our limekiln!

2. Task:

Calculate how much you would get Ca(OH)_2
from our limekiln!