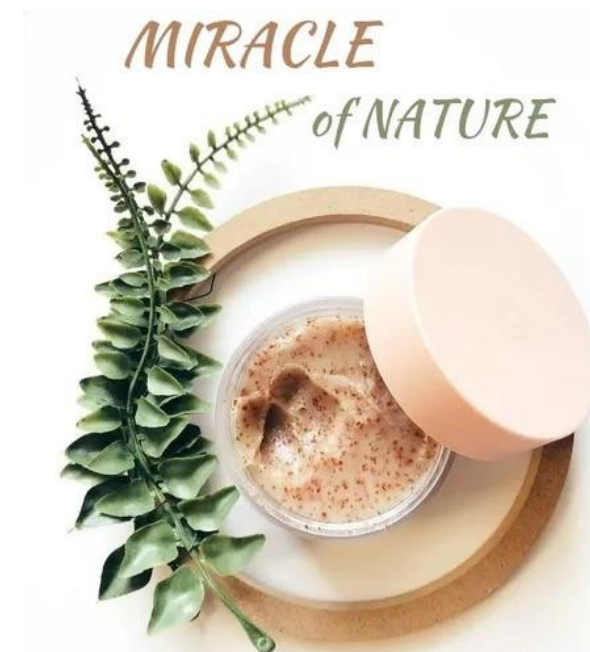


Miracle of Nature

Autori: Jurja Meglič, 1.pm, Larisa Legčević, 1.pm, Lana Knezić, 1.pm, Jana Šenjug, 1.pm i Lucija Ivančić, 1.pm.

Mentori: Irena Futivić, prof. Bibijana Šlogar, prof. i Ana Culej, prof.



- projekt je započeo u listopadu 2022.
- u projektu sudjeluje 40 učenika iz Rumunjske, Gruzije, Turske i Hrvatske
- **Cilj projekta :**
- podizanje svijesti učenika o upotrebi kemikalija
- istraživanje učinka kemikalija na naše tijelo i okoliš
- učenici su tijekom projekta izrađivali sredstva za osobnu higijenu od prirodnih sastojaka te su upoznali način izrade kozmetike kroz povijesna razdoblja
- u projektu sudjeluju učenice 1pm. i njihove mentorice Ana Culej, Bibijana Šlogar te osnivač projekta Irena Futivić



Slika 1. Sudionici projekta Miracle of Nature

Povijest kozmetike

- Tradicija izrade kozmetičkih proizvoda prisutna je kod starih Egipćana, Grka i Rimljana. Učenici su istražili koje su proizvode izrađivali i koje su prirodne preparate koristili te su izradili plakate.

HISTORY OF COSMETICS
κοσμητική

- the word cosmetics comes from the Greek language, from the word κοσμητική (kosmitiki) which means the art of decorating

- today it is a special field of medicine

- through history it has adapted to the hygienic and aesthetic requirements of certain periods and environments

Cosmetics of the Egyptians

- from the earliest times of the Egyptian empire, men and women of all social classes applied eyeliner, eye shadow and lipstick

- before applying any makeup they would first prepare the skin

- face masks made of milk and honey were popular treatments back then



- they applied incense to the armpits as a deodorant and oils with flowers or spices to soften the skin

- the toxic lead-based mineral from which kohl (black substance they would put around the eyes) is made has antibacterial properties in combination with moisture from the eyes

- kohl was used by both sexes and all social classes to protect the eyes from the intense glare of the desert sun

- they invented a natural hair removal method with a mixture of honey and sugar

- to obtain lipstick, ocher color was usually mixed with animal fat or vegetable oil, and it is known that Cleopatra crushed insects for the perfect shade of red




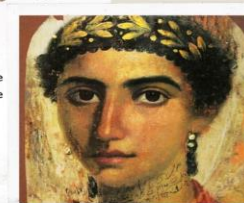
Made by: Larisa Logčević.
Mentor: Irena Futvić.
School: Gymnasium A.G. Matoša, Zabok

Cosmetics in ancient Rome

Cosmetics in the Roman world were used for ritual purposes and were an important part of medicine, until they began to be used on a daily basis. It was intended for women and it was not desirable for men to use it, but it was important for men to maintain hygiene. The Romans considered that only "preserving beauty" was acceptable, not "unnatural beautification".

Cosmetics they used: creams and lotions (donkey's milk, honey), blush (red ocher, rose petals, poisonous red lead, dregs of wine and mulberry), lipstick (beetroot juice and beeswax with a little henna), mascara (burnt cork), eyeshadow (nightshade, kohl), nail polish (sheep's fat and blood), perfumes (fatty substances from a waxy substance called lead bleach), perfumes (iris base), hair dye (wine vinegar), hair removal strips (resin and rosin)

ROMAN WOMEN PREFERRED LONG AND THICK EYELASHES, LARGE EYES AND PUPILS, SMOOTH AND SOFT SKIN. IT WAS ALSO DESIRABLE THAT THEY SMELL NICE BECAUSE THEY WERE CONSIDERED HEALTHY. A LOT OF MAKE-UP AROUND THE EYES IS NOT DESIRABLE AND WAS UNACCEPTABLE.



Made by: Jana Benjug
Mentor: prof. Irena Futvić
School: Gymnasium A.G. Matoša, Zabok

History of cosmetics

>The old way to get soap<

Soap is an anionic surfactant used for washing and cleaning (most often the hand). It is found in a solid aggregation state or in the form of a viscous liquid. The knowledge about the use of soap is over 5000 years old. Research proves that the cradle of soap is Mesopotamia (about 2500 pr.Kr.). Ancient Mesopotamians were the first to produce a kind of soap by cooking fatty acids - like fat derived from a slaughtered cow, sheep or goat - along with water and alkaline-like alkali, a caustic substance derived from wood ash. The result was a greasy and smelly goop that raised dirt.

The **Egyptians** were given soap by mixing soda with vegetable oils. The **Sumerians** used potash obtained from plant ash to prepare soap. The **Romans** prepared soap from boiling goat tallow and forest ash, and called it saipo. The **Arabs**, as excellent chemists, transferred to Spain their knowledge of the preparation of fine white soap from olive oil and caustic soda.

Ancient people used these early soaps to clean wool or cotton fibers before weaving them into fabric and for laundry, not for human hygiene. In the first factory, workers used large boilers to cook fat collected from homes, hotels and butchers to make candles and soap they sold. During the production of soap, various medicinal herbs and natural vegetable oils are often added to the basic mixture.

Aleppo soap (green soap) - based on olive oil permeated with aromatic laurel oil, was produced in Syria and brought to Europe by Christian crusaders and merchants (Jabon de Castilla - produced in Spain).

White soap based on olive oil - an extremely popular toilet item among European royal families

The most important ingredient of the product, however, is the substance that performs washing, which is a soap molecule, most often sodium stearate.



Made by: Lucija Ivančić
Mentor: prof. Irena Futvić
School: Gymnasium A.G. Matoša, Zabok

Krema za ruke

- **Sastojci:**
- 60 g kakao maslaca
- 15 g kokosovog ulja
- 15 g maslinovog ulja
- 2 žlice kukuruznog škroba
- po želji: eterična ulja, npr. vanilija, lavanda, cimet...
- mala limenka s poklopcem na navoj
- lonac i staklo otporno na toplinu ili posuda za vodenu kupelj



Priprema:

- **Korak 1**

- Pripremite vodenu kupelj za otapanje sastojaka.

- **Korak 2**

- Umiješajte oko 2 žlice kukuruznog škroba i možete dodati i nekoliko kapi eteričnog ulja po želji kako bi krema za ruke imala ugodan miris.

- **Korak 3**

- Gotovu kremu napunite u limenku ili teglicu i stavite u hladnjak na nekoliko sati da se stvrdne. No posudu nemojte zatvoriti dok se krema potpuno ne ohladi.

Balzam za usne

- **Sastojci:**
- 4 grama pčelinjeg voska (bijelog ili žutog, preporučeno prirodni žuti)
- 5 grama ricinusovog ulja
- 8 grama ekstra djevičanskog kokosovog ulja
- 6-7 grama kakao maslaca
- Kakao masa ili prah (1/4 žličice za početak)
- 2-3 kapi vitamina E
- 10-15 kapi eteričnih ulja (6 kapi ulja klinčića i 9 kapi ulja slatke naranče)
- Stick pakiranja za balzam

Postupak

- **Korak 1**
- Pripremite vodenu kupelj za otapanje sastojaka. Malo viši lonac napunite vodom do otprilike 1/3 i na vrh stavite zdjelu otpornu na toplinu s ručkama, naslonjenu na rub lonca. Stavite lonac na štednjak, dodajte sastojke i promiješajte. Na kraju dodajte eterično ulje i vitamin E.
- **Korak 2**
- Nalijte smjesu u stick kalupe i čekajte da se stvrdne.



Sapuni

- **Sastojci:**
- baza za sapun
- eterična ulja – limunska trava, ružmarin, lavanda
- tekuća boja za sapun



Priprema:

- **Korak 1**

- Narezati bazu za sapun kako bi se lakše topila.

- **Korak 2**

- Stavite lonac na štednjak, dodajte narezanu bazu za sapun, polako miješajte dok se ne rastopi. Na kraju dodati boju i eterično ulje.

- **Korak 3**

- Gotovu smjesu ulijte u kalupe i pričekajte da se sapun stvrdne.

Video - izrada sapuna, balzama i kreme

- <http://www.gimagm.hr/projekti/projekti-2022-2023/projekt-miracle-of-nature/>

Hvala na pažnji!

