Let’s STREAM

online course

BACK TO NATURE

We make juice from rose, acacia and elderflower

29.5.2025 - 31.5.2025.

Author: Mirjana Mihok

Objectives of the unit

Understand	**Science:** Understand natural extraction of aromas Explore dissolution/sedimentation
Document	**Technology:** Document process using smartphones
Engineering	**Engineering:** Build simple filtration system
Design	**Arts:** Design artistic labels
Apply	**Mathematics:** Apply measurements and proportions
Promote	**Physical and health education:** Promote physical activity and nature care

Materials by subject area

Science: elderflowers, rose petals, citric acid, sugar

Math: scales, measuring cups

Engineering: funnel, strainer, bottles

Technology: smartphones

Arts: papers, markers, labels

PHE: gloves, baskets, water bottles

Expanding knowledge about plants

Edible / Medicinal / Ornamental / Poisonous

Woody / Herbaceous

Cultivated / Wild

Coniferous / Deciduous

Group work and worksheet

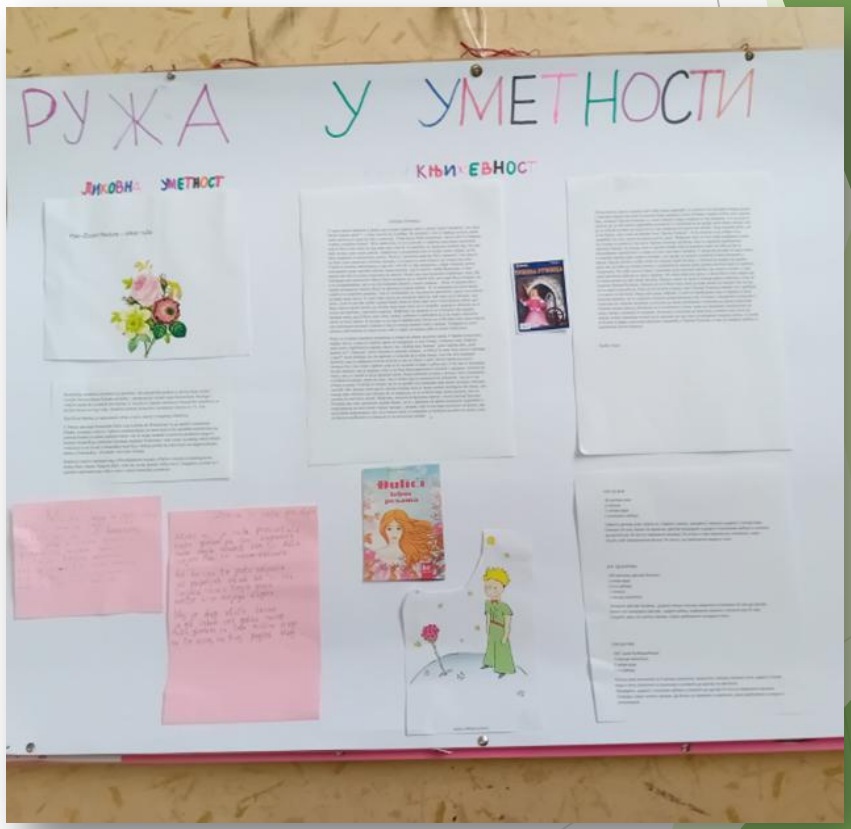
Objective:

- Establish knowledge about different types of plants (woody and herbaceous plants, bushy plants, coniferous and deciduous trees, wild and cultivated plants, medicinal and ornamental plants);
- Encourage students to connect plant species with the environment in which they live;
- Expand knowledge about the importance of plants for humans;
- Develop collaborative relationships through group work.

Tables to categorize:

- Herbaceous / Woody
- Bushy Plants
- Coniferous / Deciduous
- Wild / Cultivated
- Medicinal / Ornamental
- Plant parts used in nutrition

Creating a poster board



Questionnaire creation

Questions on juice habits

Preferences: homemade vs store-bought

Types: syrup, carbonated, still...

- Survey prepared by students

Questionnaire analysis

Objective:

Talking about the healt aspect – the benefits of natural juices, the importance of hydration and health preservation.

Juices			
Domestic (homemade)		Shopping juice(juice from the store)	
Squeezed juice	Syrup	Carbonated juice	Still juice

Researching recepies for rose, elderflower and acacia juice

Students were previously given a homework assignment to finda recipe for making rose, elderflower or acacia juice, either from their mothers, grandmothers or on the internet.

Type of rose (Rosa damascena)

Necessary ingredients for making rose, elderflower or accacia juice

Additional kitchen utensils and cookware

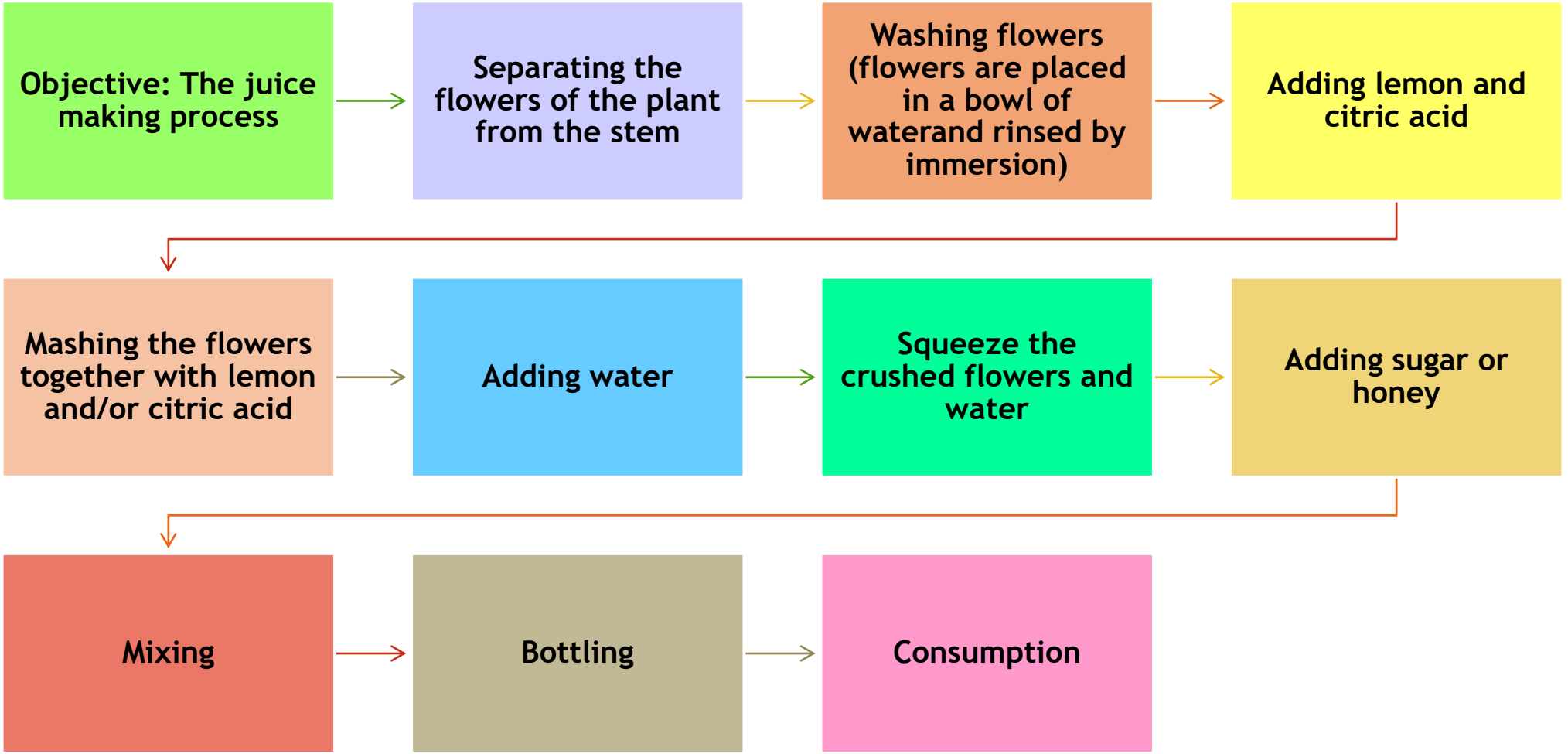
Objective: Students will research and find a recipe for making rose juice, analyze its igredients and the preparation process. They will explore the role of different igredients, discuss the benefits of natural juice and reflect on the cultural and traditional significance of using rose, elderflower and acacia in food and beverages.

Spending time in nature and picking flowers

Objective: Connecting physical activity and a healthy lifestyle.

- Walking in different ways
- Stretching exercises while picking flowers
- Discussion about the importance of hydration and consuming natural beverages

Juice making process












Parallel activities

- **Objectives:**

- **Science:**
  Understanding chemical and physical changes during flower soaking and ingredient dissolution.
  Studying the role of lemon as a natural preservative.

- **Technology:**
  Using digital tools to document the process (photography and video recording).

- **Engineering:**
  Testing different ingredients to achieve optimal taste and consistency.

- **Mathematics:**
  Proportions and measurements.

Designing labels

- Objectives
- Designing labels for juice bottles
- Creating a brand and a slogan for the product

Be as rosy as a rose
When a flower turns to drink – rose juice is what you think!
The rose blooms, the rose beams – in my juice, there's magic dreams.
Let rose juice be served with cheer, friend to friend, far and near!

Elderflower is calling you
Elderflower juice – a natural source of health.

Acacia juice is the trend – drink it and your health will mend!
Acacia juice for a healthy day's start.Don't act tough, drink acacia juice – you'll be strong enough!

Selling juice at the Easter event

- **Mathematics:** Financial literacy (determining prices, calculating costs and profit, giving change)
- **Arts:** Designing the stand, bottle labels, posters, and slogans
- **Engineering:** Organizing the stand, efficient serving and packaging
- **Technology:** Using digital tools for promotion
- **Science:** hygiene, preservation of juice freshness during sale

Donation of collected funds

Objectives:

Developing entrepreneurial competencies and social responsibility

Mathematics: calculation of total income and distribution of money for donation

Technology: using digital platforms for transparent tracking of donations

Natural and social sciences: understanding the social impact of humanitarian actions and developing student's empathy meaningful community contribution

STREAM project highlights

Integrated STREAM approach
Science, Technology, Engineering, Arts, Mathematics through hands-on learning

Project activities
- Plant identification in nature
- Natural juice preparation
- Label design
- Ingredient calculation
- Humanitarian sale organization

Student involvement
From idea to implementation and social responsibility

Key competencies developed
- Ecological awareness
- Empathy & responsibility
- Entrepreneurial mindset

Social impact
Earnings donated for humanitarian purposes

Conclusion
Learning as a **creative**, **meaningful**, and **real-life connected** experience

Thank you for your attention!

Mirjana Mihok