FACULTY OF EDUCATION IN JAGODINA, UNIVERSITY OF KRAGUJEVAC

DIFFERENT MATERIALS, DIFFERENT USES

Teacher Nevena Rudinac These slides offer a brief overview of the knowledge gained throughout this course. They cover STEM and STREAM approaches, as well as activities I have implemented in my classroom and regularly practice with my own kids.



THE POWER OF DIVERSITY

- These are just some of the important women(Grace Hopper, Emmy Noether, Ayah Bdeir) who have contributed to science and technology. These are women in STEM.
- They are so different precisely because of the regions they come from, their nationalities, and their skin color.
- Yet in one regard, they are alike: each made a contribution to society through dedicated work in their respective fields.

Children in lower grades are starting to learn more about different materials and how they are used in **everyday life.**

They can name common materials such as wood, plastic, metal, glass, fabric and rubber, and describe what they feel likehard, soft, smooth, rough, bendy of stiff. They begin to understand that each material has special properties.

For example, they know that glass is seethrough, metal is strong and fabric is soft. They can talk about why certain materials are used to make different objects- for instance, why a raincoat is made from waterproof material, why a ball is made from rubber, why a pacifier is made from rubber, or why chairs are made from wood or metal.





Students are also learning how to group materials based on what they are made of and how they behave. They enjoy sorting object and doing simple experiment to see which materials float, bend, or let light pass through.



Playwood dominoes

From Nature to Clay: Our Cave Models

Students learn: History – about prehistoric life and early humans Art- clay modeling and creativity Science- properties of clay and natural materials. Storytelling- imagining and describing life in the cave

Canyon Model

The goal of this activity was to encourage creativity, develop spatial awareness and help students better understand how canyons are formed through hands-on activity.









Inspired by M.C.Escher, these patterns transform simple geometric shapes into animals like birds, fish, or lizards. The students assembled reproductions of Eschers artwork using boxes and tessellation images. They were able to complete the full composition, enhancing their spatial reasoning and

Raising Awarness About Recycling Through Creative Student Activities

We often raise awareness about the importance of recycling certain materials, such as plastic. Students enjoy designing and creating new items from recyclable materials. These hands-on activities allow them to express their creativity while reinforcing the value of sustainability. Through these project, and based on the knowledge they ve gained about different materials, students learn to distinguish which materials are easier to work with and which are more difficult to process. The experience deerens their understanding of material properties and helps them make informed decisions during the creative process. Such activities not only support environmental education but also encourage problem-solving, team work and innovation.









Through research and experimentation, the student discovered how craters are formed on the Moon. They observed that craters are created when meteoroids hit the Moon s surface at high speed. By conducting an experiment (dropping different object into flour from various heights) they concluded that the size of the crater depends on the height, the larger and deeper the crater. This demonstrates that higher impact speed produce larger craters, just like on the Moon.









THANK YOU

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