THE EDUCATION FUND

FOR EXCELLENCE IN MIAMI-DADE PUBLIC SCHOOLS

2022-2023

Ideas with IMPACT

Idea Packet Sponsored by:

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Structures Galore

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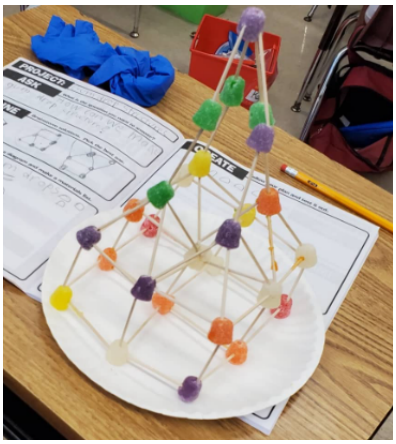

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Goals and Objectives

*to provide students the opportunities to use their creativity and develop their critical thinking skills.

*guide students to think critically and challenge standards

*Provides students the opportunities for problem solving creativity, curiosity

*Develops fine motor skills

*Encourages teamwork and acceptance

*Decision making, leadership, entrepreneurship, acceptance of failure

*Integration of Science, Math, Engineering and Math standards

Florida Standards

MAFS.K12.MP.1 Make sense of problems and persevere in solving them.
MAFS.K12.MP.2 Reason abstractly and quantitatively.
MAFS.K12.MP.3 Construct viable arguments and critique the reasoning of others.
MAFS.K12.MP.4 Model with mathematics

SC.1.N.1.1 Raise questions about the natural world, investigate them in teams through free exploration, and generate appropriate explanations based on those explorations
SC.1.N.1.2 Using the five senses as tools, make careful observations, describe objects in terms of number, shape, texture, size, weight, color, and motion, and compare their observations with others.
SC.1.N.1.3 Keep records as appropriate - such as pictorial and written records - of investigations conducted.
SC.1.N.1.4 Ask "how do you know?" in appropriate situations.

ELA.1.C.1.3
Write opinions about a topic or text with at least one supporting reason from a source and a sense of closure.

ELA.1.C.1.5
With guidance and support from adults, improve writing, as needed, by planning, revising, and editing.

ELA.1.R.2.2
Identify the topic of and relevant details in a text.

Course Outline/Overview

The purpose of this project is to guide young learners to create structures through the use of a variety of materials. STEM requires creativity and critical-thinking skills which can be acquired through play. This project allows students the opportunity to be creative and inspired as they observe each other's creations. I decided to use materials that my students could easier access, toothpicks, tape, clothesline pins, etc. This will encourage them to create structures on their own. Students learn to plan, create, modify, and share their structures. They will use their senses to observe their structures as well. As they create various structures, they will use appropriate terminology modeled by the teacher. I focused on one structure a month to be able to allow students various opportunities to build their structures.

STEM includes the following features:

- Standards-based instruction driven by problem-solving, discovery and exploratory learning that requires students to actively engage in learning.
- Technology provides creative and innovative ways to solve problems and apply what has been learned.
- Collaboration, communication and critical thinking skills threaded throughout standards-based instruction.
- Opportunities for authentic, standards-based STEM experiences for all student learners.

Benefits of STEM

Quality early **STEM** experiences provide a foundation for learning about science, technology, engineering, and mathematics (**STEM**) in ways that facilitate later learning.

It can develop skills and understandings that students can build on as they progress through school and into civic life and the workforce.

STEM investigations provide experiences that support children's thinking.

It gives students opportunities to work their brains and grow into the fantastic thinkers and problem-solvers.

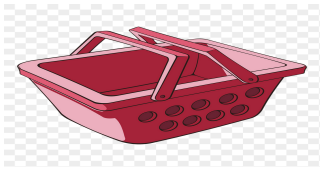
Implementation

Planning

Preparation is an essential aspect in order to assure success. Pre-planning for each of the activities allows your students to understand each step and avoids confusion. Establishing organizational routines promotes valuable skills and helps students gain independence and therefore ownership of their creation. Young learners require patience and reassurance. It is important to discuss rules and procedures for each activity.

Some containers you may use:

slider ziploc bags



small baskets

sturdy, paper cups

Implementation pt.2

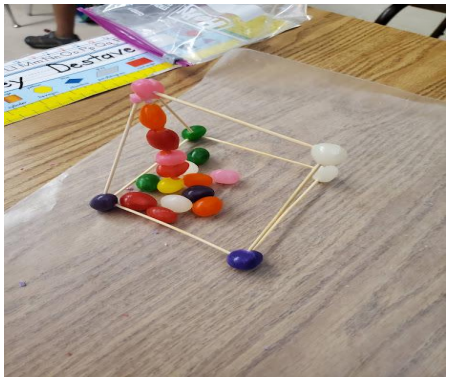
Classroom Arrangement

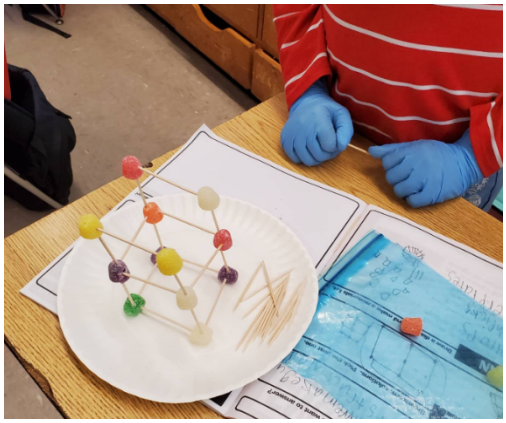
Each one of our students possess different learning styles and have a variety of skills. This is an important aspect when placing your students in their groups. Each group should allow opportunities for every student to participate when creating team structures. Supplies should be located in areas where students can access without having to ask for assistance.

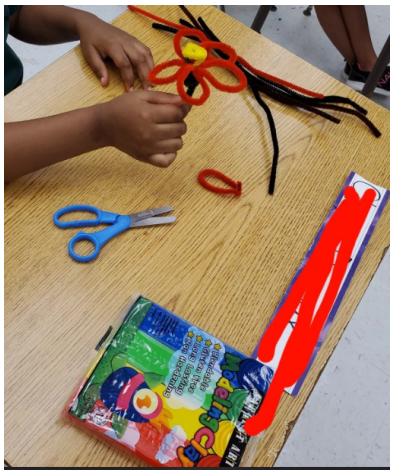
Classroom Management

These activities motivate and inspire students to exhibit good behaviors. Independence is a goal that we strive to obtain from our students. Therefore, it is essential that students understand your rules; leadership skills can be displayed by students performing proficiently. Alternate job responsibilities to promote participation and fairness.

Examples of Activities







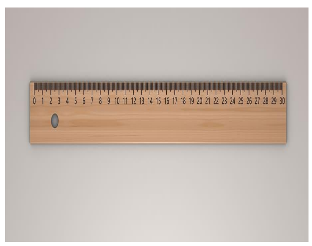
Resources



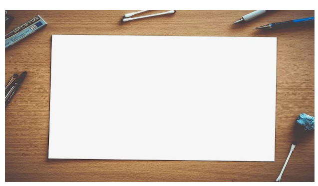
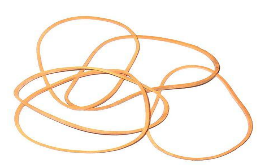


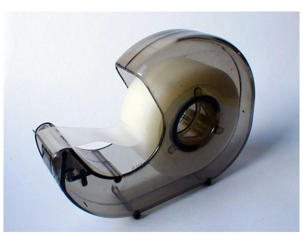








Funding

There are several ways to bing your project to life:

- Apply for an Adapter Grant at www.educationfund.org
- Donors Choose
- Dollar Tree,Wal-Mart, Target
- School PTSA
- EESAC Proposal
- Ask parents, family or friends for donations

References

https://www.fldoe.org/academics/standards/

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