Calming Aromatherapy Stress Dough



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Goals and Objectives

Project Description

The **Calming Aromatherapy Stress Dough** project combines environmental education, wellness, math and science to teach students how plants can improve physical and emotional health. Students investigate herbs and flowers that produce calming scents while learning about the science of smell, plant adaptations, mindfulness, and emotional regulation.

Using natural ingredients, students create their own aromatherapy stress dough infused with essential oils. They will also become familiar with the origins of essential oils by exploring the scents from herbs that were harvested from the school's Food Forest or school garden.

Math skills will be incorporated in the project as students use **measuring cups and spoons to accurately measure ingredients**, apply **fraction concepts** (such as whole, one-half, one-third, and one-fourth), compare quantities, estimate amounts, and follow a multi-step recipe. Through these authentic, hands-on experiences, students develop an understanding of measurement, fractions, sequencing, and mathematical reasoning while recognizing the importance of precision in scientific investigations.

This interdisciplinary project integrates:

- Science
- Math
- Reading
- Writing
- Health
- Social Emotional Learning (SEL)
- Environmental Education

Students become environmental stewards by learning sustainable practices , harvesting techniques while exploring how nature supports the complete body, health and wellness.

Objectives

Students will:

- Identify herbs and plants used for aromatherapy.
- Explain how scent affects emotions and the brain.
- Follow scientific procedures to make stress dough.
- Record observations during experiments.
- Practice mindfulness techniques.
- Connect plant science to personal wellness.
- Demonstrate environmental stewardship through sustainable harvesting.
- Measure ingredients accurately using measuring cups and spoons.
- Identify and compare fractions (1/4, 1/2, 1 whole).
- Estimate ingredient amounts before measuring.
- Follow multi-step directions in sequential order.
- Record measurements in a science journal.
- Practice mathematical reasoning while creating stress dough.

Florida Standards

SC.3.L.17.2
Recognize that plants use energy from sunlight to make food.

SC.3.L.17.1
Describe how plants respond to environmental conditions.

SC.3.N.1.3
Keep records as appropriate during scientific investigations.

SC.3.N.1.6
Infer based on observation.

MA.3.FR.1 – Develop an understanding of fractions as numbers.

Students will:

- Recognize and use **1/4, 1/3, 1/2, and whole** measurements.
- Explain how two 1/2 cups equal one whole cup.
- Compare fractional measurements.

MA.3.M.1 – Solve problems involving customary units of measurement.

Students will:

- Measure ingredients using cups, teaspoons, and tablespoons.
- Estimate and verify quantities.
- Compare larger and smaller measurements.

MA.3.AR.1 – Solve one- and two-step real-world mathematical problems.

Students will:

- Determine how much of each ingredient is needed.
- Double or halve a recipe.
- Calculate ingredient quantities for small groups.

Course outline/ Overview

Essential Question

How can plants help people stay healthy, calm, and emotionally balanced?

Big Ideas

Students will discover:

- Plants produce natural oils.
- Aromas can influence mood.
- Gardens provide more than food.
- Nature supports emotional wellness.
- Sustainability protects valuable plant resources.
- Measuring and following a recipe is a life skill.

Vocabulary

- Aromatherapy
- Essential oil
- Herb
- Lavender
- Rosemary
- Peppermint
- Lemongrass
- Eucalyptus
- Mindfulness
- Wellness
- Compost
- Sustainability

Math Vocabulary

Fraction
Whole
Half
Quarter
Measure
Estimate
Cup
Tablespoon
Teaspoon
Recipe

Lesson Plans
Day 1: Introduction to Plants, Aromatherapy, and Wellness

Learning Objectives:

Students will:

- Identify plants commonly used for calming scents.
- Explain how plants can support human health and wellness.
- Use observation skills to describe plant characteristics.
- Record observations using scientific vocabulary.

Materials:

- Fresh herbs (lavender, rosemary, mint, lemon balm)
- Magnifying glasses
- Plant observation journals
- Informational books about herbs

Lesson Activities:

Engage:

Teacher introduces the question:

"Have you ever smelled something that made you feel calm or happy?"

Students share experiences with familiar scents such as lavender, lemongrass, eucalyptus, peppermint, rosemary, and lemon

Explore:

Students rotate through plant investigation stations:

- Observe leaves
- Feel textures
- Smell herbs
- Draw plant structures

- Record observations

Discuss:

Students learn:

- Plants contain natural oils.
- Humans use plants for food, medicine, and wellness.
- Gardens provide resources beyond food.

Assessment:

In their journal books, students will create a 4 column question chart : Draw your plant, Do a rubbing of its appearance and describe its texture, How does it smell?, and How does it make you feel?

Day 2: The Science of Smell and Plant Oils

Learning Objectives:

Students will:

- Explain how scents travel and influence emotions.
- Compare different plant aromas.
- Make predictions based on observations.

Materials:

- Scent jars
- Cotton balls
- Herb samples from garden or Food Forest
- Student journals

Lesson Activities:

Mini Lesson:

Teacher explains:

- Plants produce aromatic oils.

- These oils create scents.
- Our nose sends information to the brain.

Investigation:

Students participate in a scent experiment.

Stations:

1. Lavender
2. Peppermint
3. Rosemary
4. Lemon

Students rate:

- Favorite scent
- Least favorite scent
- Emotional response

Math Connection:

Students create a class graph:

"Which scent did students prefer?"

Students analyze:

- Most popular scent
- Least popular scent
- Differences between categories

Assessment:

Students Journal Entry:

"The scent I prefer is _____ because _____."

Day 3: Mathematics of Measurement and Fractions

Learning Objectives:

Students will:

- Measure ingredients accurately.
- Identify fractional measurements.
- Explain relationships between fractions and wholes.

Materials:

- Measuring cups
- Measuring spoons
- Fraction tools
- Recipe cards

Lesson Activities:

Math Warm-Up:

Students examine measuring tools.

Teacher asks:

- How many 1/2 cups equal 1 cup?
- How many 1/4 cups equal 1 cup?

Measurement Practice:

Students practice measuring:

- 1 cup
- 1/2 cup
- 1/4 cup
- tablespoon
- teaspoon

Recipe Math Challenge:

Students solve:

"If one recipe requires 2 cups of flour, how much flour is needed for two batches?"

"If four groups each need 1/2 cup of salt, how much salt is needed?"

Assessment:

Students complete and answer the above math challenge questions in their journal books.

Day 4: Following Directions and Creating the Stress Dough

Learning Objectives:

Students will:

- Follow a sequential procedure.
- Apply measurement skills.
- Create a product using scientific and mathematical processes.

Materials:

Scented Stress Dough Recipe:

- 1 cup flour
- 1/4 cup salt
- 1 tablespoon cream of tartar
- 1 tablespoons vegetable oil
- 3/4 cup warm water
- essential oils
- Food coloring
- Metal Mixing bowl
- Large mixing spoon
- Parchment paper
- Electric kettle
- Measuring cups and spoons
- Airtight containers with lid
- Small mixing spoon

Lesson Activities:

Before Mixing:

Students review:

1. Watch video How to Make DIY Scented Play Dough | HGTV for preview , then read directions found on resource page.
2. Gather materials.
3. Measure ingredients.
4. Mix carefully.
5. Record observations.

Student Creation:

Students work in groups.

Roles:

- Measuring Scientist
- Recorder
- Ingredient Manager
- Mixer

Students document:

- Ingredient amount
- Measurement tool used
- Changes observed

Math Connection:

Students discuss:

- Which ingredient had the largest measurement?
- Which had the smallest?
- Which fractions were used?

Assessment:

Teacher observes:

- Accurate measuring, following procedures and teamwork!

Day 5: Scientific Investigation and Testing

Learning Objectives:

Students will:

- Evaluate the properties of their stress dough.
- Record observations.
- Use data to make conclusions.

Materials:

- Completed stress dough
- Science journals
- Observation sheets

Lesson Activities:

Students test:

- Texture
- Stretchiness
- Scent strength
- Color
- Effect on mood

Students record in journal books:

Property	Observation
Texture	
Smell	
Appearance	

Math Connection:

Students rank:

- Strongest scent
- Softest dough
- Favorite recipe variation

Students create a simple data chart.

Assessment:

Science journal reflection:

"My stress dough worked because..."

Day 6: Writing, Reflection, and Environmental Connections

Learning Objectives:

Students will:

- *Explain how plants support wellness.*
- *Write a scientific reflection.*
- *Connect gardening to sustainability.*

Florida Standards ELA:

- *Write informative/explanatory texts.*
- *Use evidence from investigations.*

Lesson Activities:

Students write:

"The Story of My Calming Stress Dough"

Include:

- *Plant used*
- *Measurements used*
- *Steps followed*
- *Scientific explanation*

- *How nature supports wellness*

Environmental Connection:

Discussion:

- *How can we responsibly harvest plants?*
- *Why should we protect gardens?*
- *How does composting support plant growth?*

Assessment:

Writing rubric:

Science vocabulary
Math vocabulary
Complete explanation
Organization

Day 7: Presentation, Sharing, and STEM Celebration

Learning Objectives:

Students will:

- *Communicate learning.*
- *Explain scientific and mathematical processes.*
- *Reflect on project outcomes.*

Activities:

Students create a display:

"Plants, Math, and Wellness: What We Learned"

Display includes:

- *Herb identification cards*
- *Measurement charts*
- *Fraction examples*
- *Stress dough recipe*
- *Student reflections*

Student Presentations:

Students explain:

- *What plant they used*
- *What measurements they used*
- *What fractions they practiced*
- *How the project connected science and wellness*

Final Project Assessment

Students demonstrate mastery through:

Science: *Understanding plant properties and explaining aromatherapy*

Mathematics: *Accurate measurement, fraction understanding and data recording*

Literacy: *Scientific writing and vocabulary use*

SEL:

Mindfulness strategies
Emotional awareness

Environmental Education:

Sustainable use of natural resources

Resources

Recipe directions

First, in a large glass or metal mixing bowl , add 1 cup of flour, ¼ cup of salt, and 1 TBSP cream of tartar then mix.

Next, add 1 TBSP vegetable oil and mix with the ingredients already in the bowl.

Have your teacher use the electric kettle to boil hot water. With the help of your teacher, pour ¾ cup of hot water into a measuring cup. Add 4-5 drops of food coloring and 15 drops of essential oil to the hot water then mix it. Leave it alone so that it cools a little so that the temperature is warm.

Then, add the warm water little by little into the bowl and mix until the consistency is obtained.

Finally, place your parchment paper over your desk, spread some flour onto it and then knead your dough until it becomes soft.

Video link for Scented Play Dough How to Make DIY Scented Play Dough | HGTV

Recipe and equiptment

1 cup all purpose flower (purchased at walmart)

1 TBSP cream of tartar (purchased on Amazon)

¼ cup salt (purchased at dollar store or Walmart)

1 cup of hot water/ electric kettle (purchased on Amazon or Walmart)

1 TBSP of vegetable oil (purchased in grocery store)

5 drops food coloring (purchased on Amazon)

15 drops of Essential oil (Purchased on Amazon)

Parchment paper(purchased at the dollar store)

Measuring cups/ spoons,, mixing bowls (science kit, Amazon or Walmart)

Large spoon for mixing (dollar tree)