

Nutrition Facts			
Serving Size 1 ounce 28g (1 ounce (28g))			
Amount Per Serving			
Calories 137	Calories from Fat 72		
% Daily Value*			
Total Fat 9g	13%		
Saturated Fat 1g	4%		
Trans Fat			
Cholesterol 0mg	0%		
Sodium 5mg	0%		
Total Carbohydrate 12g	4%		
Dietary Fiber 11g	42%		
Sugars			
Protein 4g			
Vitamin A 0% • Vitamin C 0%			
Calcium 18% • Iron 0%			
*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:			
	Calories	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Fiber		25g	30g
Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4			
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Chia Taste Test Data Sheet

CHIA TASTE TEST					
Sample # _1_	1. YUCK!!	2. Not so good.	3. OK	4. Pretty good	5. YUM!!
1. Appearance					
2. Aroma					
3. Texture					
4. Taste					
5. OVERALL					
6. COMMENTS:					

CHIA TASTE TEST					
Sample # _2_	1. YUCK!!	2. Not so good.	3. OK	4. Pretty good	5. YUM!!
1. Appearance					
2. Aroma					
3. Texture					
4. Taste					
5. OVERALL					
6. COMMENTS:					

CHIA TASTE TEST					
Sample # __3__	1. YUCK!!	2. Not so good.	3. OK	4. Pretty good	5. YUM!!
1. Appearance					
2. Aroma					
3. Texture					
4. Taste					
5. OVERALL					
6. COMMENTS:					

CHIA TASTE TEST					
Sample # _4_	1. YUCK!!	2. Not so good.	3. OK	4. Pretty good	5. YUM!!
1. Appearance					
2. Aroma					
3. Texture					
4. Taste					
5. OVERALL					
6. COMMENTS:					

Dear Parents,

For the past month your child has been exploring the science of chia seeds with help from Dr. Margaret Conover, a botanist who is an expert in chia seeds. Dr. Conover has written several articles about chia, and has two websites: www.chiativity.org which includes recipes and chia seed trivia, and www.chialabs.org which documents the chia seed science activities conducted by elementary and middle school students. We hope you will have an opportunity to explore these websites with your family.

One of the most important concepts we hope students take away from our chia seed science experience is that seeds, especially chia seeds, are extremely nutritious. This was known to the Aztecs in Mexico over 1000 years ago, who grew chia as a primary crop, along with corn and beans.

Gram for gram, chia has five times more protein than kidney beans, six times more calcium than whole milk, three times more iron than spinach, fifteen times more magnesium than broccoli, and eight times more omega-3 fatty acid than salmon. It is all natural, has no trans-fat, is gluten free, and is rapidly becoming a popular health food. Yes, these are the same seeds that are grown on Chia Pets, the “pottery that grows” as seen on TV.

Chia seed can be purchased at Whole Foods and online. We know your child will enjoy helping you create and consume the following chia recipes:

Chia Fresca (Chan)

Mix $\frac{1}{4}$ cup chia seed into 1 cup of water. Let sit 10 minutes and stir again. This makes a thick “gel” which may be kept in the fridge for one week. Add $\frac{1}{4}$ cup of this gel to $\frac{1}{2}$ gallon of commercial lemonade. Shake or stir well and let set for 10 minutes to combine flavors.

Chia Sprinkles

Combine $\frac{1}{4}$ cup chia seed with $\frac{1}{4}$ cup finely ground coconut, 1 tablespoon of brown sugar, and a dash of cinnamon. Roll bite-sized pieces of banana in the sprinkles and arrange them on a plate for snacking. Or sprinkle a teaspoon of this mixture on oatmeal, on a peanut butter sandwich, or over yogurt. This recipe can be modified by using ground almonds, peanuts, or sesame seeds in place of the coconut, or adding a teaspoon of cocoa powder instead of the cinnamon.

Chia Pudding

Add $\frac{1}{2}$ cup chia seeds to 2 cups of milk (or use soy milk or almond milk). Mix well, let sit 10 minutes and stir again. Add sweetener to taste (try 2 tbsp of brown sugar or 6 tbsp of hot chocolate mix). Refrigerate 3 hours. Makes 6 servings.

Lower Calorie Chia Salad Dressing Ideas

Use chia gel in place of oil in any vinaigrette recipe. The seeds absorb all the flavors and cling nicely to your greens. Or extend mayonnaise with equal parts of chia gel, add salt to taste.

Estimados padres,

Los estudiantes han explorado las semillas de chia en la clase de ciencias con la ayuda de Dr. Margaret Conover, una botánica y experta en chia. Dr. Conover ha escrito artículos acerca del chia y tiene dos sitios en el Internet—www.chiativity.org (recetas y trivia), y www.chialabs.org (documentos sobre actividades hechos por estudiantes). Esperamos que tengan tiempo para explorar los sitios con su familia.

Uno de los conceptos más importantes que hemos aprendido en la clase de ciencias es que las semillas, especialmente las semillas de chia, son muy sanas. Los Aztecas de México, quienes cultivaron chia como cultivo primario hace más de 1,000 años, entendían lo sano que era chia.

El chia tiene cinco veces más proteína que los frijoles rojos, seis veces más calcio que la leche entera, tres veces más hierro que las espinacas, quince veces más magnesio que brócoli, y ocho veces más omega-3s que el pescado salmón. Es natural, no tiene grasas trans, no tiene gluten y su popularidad está creciendo en los Estados Unidos.

Si, estamos hablando de la misma planta conocida en la televisión como “Chia Pets.”

Se puede comprar semillas de chia en Whole Foods y por el Internet.

Sabemos que su hijo/hija le encantaría ayudarle a cocinar y comer las siguientes recetas:

Chia Fresca (Chan)

Mezcla $\frac{1}{4}$ taza de semillas de chia con 1 taza de agua. Déjalo por 10 minutos y revuélvelo. Ahora tiene un gel espeso que se puede guardar en la nevera por hasta una semana. Añade $\frac{1}{4}$ taza del gel a $\frac{1}{2}$ galón de limonada. Revuélvelo y déjalo por unos 10 minutos hasta que los sabores se combinen. ¡Disfrútalo!

Chia Sprinkles

Combina $\frac{1}{4}$ taza de semillas de chia con $\frac{1}{4}$ taza de coco rallado, 1 cucharada de azúcar, y un poco de canela. Corta una banana en pedazos y pon los pedazos de banana en la mezcla de chia/azúcar/coco. ¡Disfrútalo!

Postre de Chia

Añade $\frac{1}{2}$ taza de semillas de chia con 2 tazas de leche. Mézclalo bien, déjalo sentar por 10 minutos, y revuélvelo otra vez. Añade un poco de azúcar para que saboree un poco dulce—se puede usar 2 cucharadas de azúcar ó 6 cucharadas de polvo de chocolate. Guárdalo en la nevera por 3 horas. ¡Disfrútalo!

Aliño para Ensalada

Se puede usar el gel de chia en vez de aceite en cualquier receta de vinagreta. Las semillas absorben todos los sabores de la vinagreta. También, se puede mezclar el gel de chia con mayonesa y añadir sal al gusto.

Scaffolded Sentence Starters

Instructions for instructor: You may find it helpful to use the following sentence starters to help scaffold the science investigation in student notebooks and/or group posters. We have put an asterisk next to the sentence starters we used in this lesson. Depending on your student population and their needs, you might find other the options more appropriate.

Title

Question

If we change the _____, will the chia seeds grow?

Materials

-
-
-
-

Procedure

Prediction

Beginner:

- We predicted that the chia seeds would grow/not grow.

** Intermediate:*

- We predicted that the chia seeds would....

Advanced:

- We predicted...

Observations

** Beginner:*

- We observed ___ of the seeds sprouted. The chia sprouts had ___ leaves. The chia sprouts were ___ cm tall.

Intermediate:

- We observed ___ of the seeds sprouted. The chia sprouts had The chia sprouts were

** Advanced:*

- We observed

Inferences

** Beginner:*

- We inferred that the chia seeds grew/ did not grow because there was not enough/ too much/ just enough _____.

Intermediate:

- We inferred that the chia seeds because....


Advanced:

- We inferred...


Summative Assessment: Plant Needs

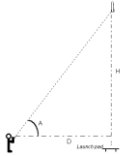
INSTRUCTIONS: Think about the different investigations we did with chia seeds. Select option A. or B. in the “Effect” column for each investigation.

1.	Cause	Effect
	We changed the amount of <i>water</i> . 	A. The plants grew better/worse. B. There was no change.

2.	Cause	Effect
	We changed the amount of <i>light</i> . 	A. The plants grew better/worse. B. There was no change.

3.	Cause	Effect
	We changed the type of <i>container</i> . 	A. The plants grew better/worse. B. There was no change.

4.	Cause	Effect
	We changed the <i>temperature</i> . 	A. The plants grew better/worse. B. There was no change.

5.	Cause	Effect
	We changed the <i>elevation</i> . 	A. The plants grew better/worse. B. There was no change.

6.	Cause	Effect
	We changed the type of <i>soil</i> . 	A. The plants grew better/worse. B. There was no change.