

May POM Lesson Plan Grades 4 or 5

Introduction

- Introduce yourself.

Supplies Needed

- POST-tests for each student

Ask students if they remember last month's POM (grapes). Ask them how they liked them and if they had any throughout the month at home.

Also ask if they tried the recipe in their parent newsletter.

OPTIONAL: Administer POST-test.

Ask students to write in classroom ID and then read directions out loud while they follow along. Classroom ID is a four digit code using the first two letters of the school name and the first two letters of the teacher's last name. For example, if the student attends Hagginwood Elementary School and his teacher's last name is Hass, the code would be HAHW.

Collect POST-tests when finished.

Nutrition Component

Objectives

- Learn why breakfast is important.
- Learn how to make healthy choices for breakfast.

Supplies Needed

- "Making Better Breakfast Choices" (p. 9) worksheet *OR* "Power up with Breakfast" worksheet <http://www.fns.usda.gov/tn/Resources/EatSmart/powerupwithbreakfast.pdf>

Background- Power Up With Breakfast

Breakfast "breaks the fast" from sleeping overnight. Everyone needs a healthy breakfast to provide adequate energy and nutrients. Breakfast provides nutrients children need to grow and develop. Breakfast should supply one fourth of the total nutrition requirements for the day.

Children do better in school and are more alert when they eat breakfast. People who eat breakfast have longer attention spans and perform better on tasks that require memory skills.

Children feel good and complain less of headaches and stomachaches from being hungry. Children who eat breakfast miss fewer days of school and are late less often.

Sometimes children don't eat breakfast if they sleep too late or they think it's a way to eat less. Children who **don't** eat breakfast tend to eat more calories in a day.

Do the Activity:

Give each 5th grade student "Making Better Breakfast Choices" (p. 9) worksheet. You may choose to give 4th grade students the "Power up with Breakfast" worksheet which may be downloaded at <http://www.fns.usda.gov/tn/Resources/EatSmart/powerupwithbreakfast.pdf>

| | |
|-----------------------------|---|
| | kfast.pdf |
| <p>Talk It Over:</p> | <p>Discuss student answers about things that make it easier to eat a healthy breakfast. <i>(getting up earlier, having breakfast items easily accessible, eating breakfast at school)</i></p> <p>What makes it harder for students to eat a healthy breakfast? <i>(no time, not hungry, don't have breakfast items at home)</i></p> <p>Review student answers of favorite fruit and vegetable breakfast ideas. Discuss additional options in class. <i>(dried fruit like raisins, fruit salad, green peppers and mushrooms in eggs, fruit smoothie, fruit on cereal, apple slices with peanut butter, peanut butter and banana sandwich, leftover vegetable pizza)</i></p> <p>Have any of the students eaten a fruit shake for breakfast? What would they put in their breakfast shake?</p> <p>Discuss other breakfast options. Include non-traditional breakfast foods.</p> <p><i>Rice pudding using leftover rice, low-fat yogurt, dried fruit, nuts, and cinnamon.</i></p> <p><i>Pita pizzas – fill pita bread with low-fat cheese, cooked lean meat, and vegetables and heat in microwave.</i></p> <p><i>Egg burrito – fill a soft flour tortilla with scrambled eggs, boiled potato, refried beans, or salsa.</i></p> <p><i>Sandwich roll-up – try peanut butter and banana on a flour tortilla.</i></p> <p><i>Fruit salad – mix fruit with yogurt or cottage cheese.</i></p> <p><i>Hot fruit – top canned or fresh fruit with brown sugar and nuts and heat in oven or microwave.</i></p> <p><i>Banana dog – peanut butter, a banana, and raisins in a long, whole grain bun.</i></p> <p><i>Leftovers – macaroni and cheese with juice, slice of pizza, etc.)</i></p> |
| <p>Apply:</p> | <p>Is time tight in the morning for breakfast? What are ways to help students have a healthy breakfast? <i>(Plan the night before, have “quick” breakfast items available at home, eat breakfast at school.)</i></p> <p>Have students think of on-the-go breakfast ideas. <i>(piece of fresh fruit, string cheese, 100% juice box, cereal bar, whole grain muffin, yogurt drink, yogurt, cup of fruit, mini bottle of milk, trail mix with peanuts, cereal and raisins)</i></p> <p>Why would it be especially important to brush your teeth after</p> |

| | |
|--|---|
| | <p>eating raisins or other dried fruit? <i>(They tend to stick to the teeth, creating an environment for cavities.)</i></p> <p>Can these fruits or vegetables be eaten for breakfast? <i>(Yes. Raisins make an on-the-go breakfast or could be eaten in cereal or oatmeal. Celery sticks could have peanut butter and raisins inside. Think outside of the box: shredded cabbage could be used in breakfast tacos. Orange juice, or any 100% juice, also counts.)</i></p> |
|--|---|

Produce of the Month Component

| | |
|--|---|
| <p>Objectives</p> <ul style="list-style-type: none"> Learn that strawberries are fruits that are grown mostly in California, but can grow in Nevada. Learn what strawberries look like. <p>Supplies Needed</p> <ul style="list-style-type: none"> May POM parent newsletters Other forms of strawberries (i.e. bag of frozen, dried in cereal, juice, etc.) Strawberries for each student to taste Small paper plates Napkins Plastic serving gloves Anti-bacterial gel | <p>Background</p> <p>Strawberries are thought to have originated with the Romans, maybe as far back as the Greeks. The name “strawberry” may have resulted from children in the 19th century, who threaded the berries on straw and sold them.</p> <p>Strawberries are grown on a small, perennial (survives more than one growing season) plant that must be harvested by hand. In the U.S. strawberries typically peak during April in Florida and Texas, May in the deep South, and in early June in middle sections and later June in the far North and Canada. Over three-fourths of the nation’s strawberries are grown in California. The growing season for strawberries in California lasts almost year-round.</p> <p>Ideal temperature for strawberry plants should not exceed higher than 78 degrees or lower than 55 degrees. From the end of September through the end of October, strawberries are planted and harvesting occurs from mid-December through mid-July in Ventura County, CA, which produces more than 27 percent of the state's strawberries. The peak harvesting season in California runs from April through June, when up to 10 million pint baskets of strawberries are shipped daily.</p> <p>Every strawberry plant is hand-picked approximately every three days. This is the time in which it takes for strawberries to complete their cycle of turning from green to white to red. There is no storage of fresh strawberries. After picking, they are rushed to coolers within 24 hours where huge fans extract the field heat. Then they are delivered to supermarkets across the country via refrigerated trucks. Hand picking and refrigerating immediately ensures good quality to far-away locations. California also ships strawberries to Japan, Mexico and Canada.</p> |
|--|---|

| | |
|--|---|
| | <p>We eat the “fruit” part of the plant. The red fruit grows after a small white blossom blooms. The strawberry is not classified by botanists as a true berry. True berries, such as blueberries and cranberries have seeds inside. Each strawberry has about 200 seeds on the outside skin. If all the strawberries produced in California this year were laid berry to berry, they'd wrap around the world 15 times. That's enough strawberries to provide every U.S. household with 12 pint baskets.</p> <p>Strawberries contain vitamin C, folic acid, potassium and fiber. Eight fresh strawberries provide approximately the same amount of vitamin C as an orange.</p> <p>Respondents to a recent national survey labeled strawberry lovers as "health conscious, fun loving, intelligent and happy." Non-strawberry lovers, on the other hand, were described as "weird, boring, stuffy--picky, fussy eaters who avoid healthy foods."</p> |
| <p>Talk It Over:</p> | <p>What part of the strawberry plant do we eat? (<i>the fruit</i>)</p> <p>Do we need to grow new strawberry plants each year? (<i>No, they are perennial plants</i>)</p> <p>Have any of you picked your own strawberries?</p> |
| <p>Apply: Taste Opportunity</p> | <p>When might you eat strawberries? (<i>for breakfast, lunch, snack, anytime</i>)</p> <p>There are many ways to eat strawberries. Raise your hand if you have eaten strawberries in any of the following ways: Fresh, holding the leaves and eating from the bottom all the way up to the leaves Fresh, cut up on cereal In a fruit salad In a smoothie In muffins Can you think of other ways to eat strawberries?</p> <p>Strawberries provide us with vitamin C. Vitamin C helps cuts heal and fight infections.</p> <p>Do you think you would get more strawberries in a strawberry smoothie made with strawberries, bananas, ice, yogurt, and orange</p> |

| | |
|--|---|
| | <p>juice, or from strawberry soda pop? (<i>You were right if you thought you would get more strawberries in the strawberry smoothie. Strawberry pop doesn't really have strawberries in it. It just has flavor of strawberries.</i>)</p> <p>Have students wash their hands. Wash the strawberries for the students to sample. Have the students hold the stem and eat! How would you get a strawberry ready to eat as a snack? Strawberry – Wash. Eat. (How easy is that?)</p> |
|--|---|

Physical Activity Component

| | |
|---|---|
| <p>Objectives</p> <ul style="list-style-type: none"> • Know that warming up is an important part of physical activity. • Learn easy ways to stretch to reduce the risk of injury. <p>Supplies Needed:</p> <ul style="list-style-type: none"> • Spaghetti Noodles – cooked & uncooked | <p>Background</p> <p>Physical activity is important to keep the heart and other muscles strong. Physical fitness has several components such as cardiorespiratory, strength and flexibility. Last month the students learned about the importance of increasing the heart rate to have a strong cardiovascular system. This month the focus will be on increasing flexibility and the importance of warming up prior to being active.</p> <p>It is equally important to have strong muscles that can work forcefully over a period of time and be flexible enough to have a full range of motion at the joint. Injuries are often the result of muscle imbalance at a specific joint; the muscles on one side may be much stronger than the opposing muscles or the muscles may not be flexible enough to allow complete motion to let sudden motion occur. (<i>Fitnessgram</i>)</p> <p>When you begin to exercise, your cardiovascular and muscular systems are stimulated. Muscles contract and, to meet their increasing demands for oxygen, heart rate, blood flow, cardiac output and breathing rate increase. Blood moves faster through arteries and veins, and is gradually routed to working muscles. Blood temperature rises and oxygen is released more quickly, raising the temperature of the muscles.</p> <p>A gradual warm-up does the following:</p> <ul style="list-style-type: none"> • Leads to efficient calorie burning by increasing core body temperature • Produces faster, more forceful muscle contractions • Enables the body to deliver oxygen to the working muscles |
|---|---|

| | |
|--------------------------------|--|
| | <p>more quickly</p> <ul style="list-style-type: none"> • Prevents injuries by improving the elasticity of muscles • Allows activity to be comfortable longer because all energy systems are able to adjust to exercise, preventing the buildup of lactic acid (“the burn” you feel in your muscles) in the blood • Improves joint range of motion <p>The warm-up should consist of two phases: 1) progressive aerobic activity that utilizes the muscles you will be using during activity; and 2) flexibility exercises. Choose a warm-up activity that allows gradual transitioning into activity. A basic guideline is to work at a level that produces a small amount of perspiration, but doesn’t leave you feeling fatigued.</p> <p>After the aerobic warm-up activity flexibility/stretching should be incorporated. Stretching muscles after warming them up with low-intensity aerobic activity will produce a better stretch. The rise in muscle temperature and circulation increases muscle elasticity, making it more pliable. Be sure to choose flexibility exercises that stretch the primary muscles you will be using during your workout.</p> |
| <p>Do the Activity:</p> | <p>Begin by explaining to students the benefits and importance of warming up and stretching. Have they ever done so before?</p> <p>Most likely they have previously discussed and participated in a warm up and stretching in physical education class. (It may be appropriate to ask the physical education instructor to make a guest appearance for this lesson, or to provide any insight or technical assistance.)</p> <p>Show the students a bowl of uncooked spaghetti noodles. Have the students feel the hard noodles, and how they break if bent. This is similar to muscles that have not warmed up. Then show the students a bowl of cooked spaghetti noodles. Have the students feel how easily they bend and move. These noodles are similar to muscles that have warmed up.</p> <p>In the past students learned about their heart rate increasing. A warm-up gradually increases the heart rate. Even simple warm-ups increase the heart rate, and increase blood flow pumping through the body. Explain to students that taking those extra few minutes to adjust to increased activity will ensure a better performance from</p> |

your body and, in turn, make it more enjoyable. In addition to warming up it is important to stretch. We should spend at least 5 to 10 minutes warming up prior to stretching.

Increased stretching allows increased flexibility, which in turn:

- Allows greater freedom of movement and improved posture
- Releases muscle tension and soreness
- Reduces risk of injury

Discuss that some people are naturally more flexible. Flexibility is primarily due to one's genetics, gender, age and level of physical activity. Remind students that it is okay to be more or less flexible than other students. As we grow older, we tend to lose flexibility, usually as a result of inactivity rather than the aging process itself. The less active we are, the less flexible we are likely to be. As with cardiovascular endurance and muscle strength, flexibility will improve with regular training.

Some important safety tips to remember when stretching include:

- Don't bounce a stretch. Holding a stretch is more effective and there is less risk of injury.
- Don't stretch a muscle that is not warmed up.
- Don't strain or push a muscle too far. If a stretch hurts, ease up.
- Don't hold your breath.

Take the students through a mini warm-up. Have them march at their desks, walk around the room or their desks for a few minutes. Then lead them in some child friendly warm-ups and stretches:

- Half-Neck Circles - Smoothly and slowly roll head to the left, back to the front, then to the right. Repeat 10 times. (Do not let students roll their necks back on their spines.)
- Shoulder Shrugs - With arms at side, alternate lifting shoulders to the ears and then dropping them as low as possible. Do one shoulder at a time and repeat with the other shoulder. Repeat 10 times with each shoulder.
- Arm Circles - Stand with feet comfortably apart, arms held up and out stiffly to the sides. Circle arms forward and backwards, making small and large circles. Keep elbows locked as this allows the muscles to work more. Repeat several times.
- Side Bends - With left hand on waist and right hand

| | |
|--|--|
| | overhead, bend to the left. Hold for 5 seconds. Repeat with the other side. Repeat five times with each side. |
| Talk It Over: | <p><i>Ask the students:</i></p> <p>What muscles did you warm up and stretch out today?</p> <p>Why is it important to warm-up muscles before stretching or doing a lot of activity?</p> <p>Why is stretching important for our muscles?</p> <p>What is important to remember when warming up?</p> <p>What is important to remember when stretching?</p> |
| Apply | <p>Ask the students what type of activities they might be ready to play now that they are warmed up.</p> <ul style="list-style-type: none"> • Run • Unwind (stretch) • Skateboard <p><i>Source: American Council on Exercise and FITNESSGRAM/ACTIVITYGRAM</i></p> |
| Supplies Needed: | If time permits, do Strawberry Math (p. 10) Worksheet with the students. |
| Fun Stuff | |
| <p>If you have funds to purchase these items:</p> <ul style="list-style-type: none"> • Cool Fuel Cookbooks for each student • Posters for classroom display | <p>Encourage the kids to eat healthy. Pass out Cool Fuel Cookbooks* and hang up fruit and vegetable posters in the classroom to promote fruits and veggies.</p> <p>*Cool Fuel Cookbooks may be purchased from the Produce for Better Health website at http://www.pbhcatalog.com/acatalog/Cool_Fuel_Kids_Cookbook.html</p> <p>*Colorful posters may be purchased from the State of health website at http://www.buttout.com/catalog.html?cart=12620295869709918&p=poste&z=378</p> |

Making Better Breakfast Choices

Influences

Complete each of the sentences below. Then explain your answer in more detail.

Example: *One thing that makes it easier for me to eat a healthy breakfast is having fresh fruit at home. My mom always buys fresh fruit, washes it, and keeps it in a bowl on the counter.*

One thing that makes it easier for me to eat a healthy breakfast is:

One thing that makes it harder for me to eat a healthy breakfast is:

How can you change one of the things that makes it harder for you to eat a healthy breakfast?

Top 5 Favorite Fruit and Vegetable Breakfast Ideas

List your personal favorite fruit and vegetable breakfast ideas below.

- 1
- 2
- 3
- 4
- 5

Source: *Making Better Breakfast Choices Worksheet*, IDPH Pick a Better Snack & ACT, http://www.idph.state.ia.us/pickabettersnack/common/pdf/march_4_5_lessons.pdf

Strawberry Math

1

If one strawberry has 200 seeds, how many seeds are on 5 strawberries?

How many seeds are on 9 strawberries?

2

If 12% of all strawberries at the supermarket are grown outside of California, what percent is grown in California?

3

If one tray of strawberries weighs 11 pounds, (a) how many pounds do 20 trays weigh?

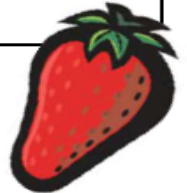
(b) how many pounds does $\frac{1}{2}$ a tray weigh?

4

Each acre produces an average of 21 tons of strawberries. If a strawberry farmer needs to grow 80 tons of strawberries, how many acres does he/she need to plant?

5

If there are 30 strawberries in a pound and you need to feed 10 friends 9 strawberries each, how many pounds of strawberries do you need to buy?



Strawberry Math



Answer Key

1

If one strawberry has 200 seeds, how many seeds are on 5 strawberries?

1000

How many seeds are on 9 strawberries?

1800

2

If 12% of all strawberries at the supermarket are grown outside of California, what percent is grown in California?

88%

3

If one tray of strawberries weighs 11 pounds, (a) how many pounds do 20 trays weigh?

220 pounds

(b) how many pounds does $\frac{1}{2}$ a tray weigh?

5½ pounds

4

Each acre produces an average of 21 tons of strawberries. If a strawberry farmer needs to grow 80 tons of strawberries, how many acres does he/she need to plant?

4 acres

5

If there are 30 strawberries in a pound and you need to feed 10 friends 9 strawberries each, how many pounds of strawberries do you need to buy?

3 pounds

Adapted from the California Strawberry Commission