CITY SPROUTS
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GARDEN-BASED HEALTH & WELLNESS CURRICULUM

FOR 3RD – 5TH GRADE

ABOUT THIS RESOURCE

This Garden-Based Health and Wellness curriculum and video series was funded by a grant from the Futuro Latino Fund, a grant program of the Omaha Community Foundation. Curriculum was designed by Octavia Butler, Gomez Heritage Elementary School. Accompanying videos created by Torchwerks. Graphics courtesy of freepik.com. Special thanks to Albert Varas, City Sprouts Board President, for his leadership on this project. For additional information, contact City Sprouts at info@omahasprouts.org.

This curriculum and accompanying videos are available at omahasprouts.org/learn.

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City Sprouts is a 501(c)3 nonprofit organization.
Our mission is to sustain communities through gardening.

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Lesson #1

fruits & nutrients

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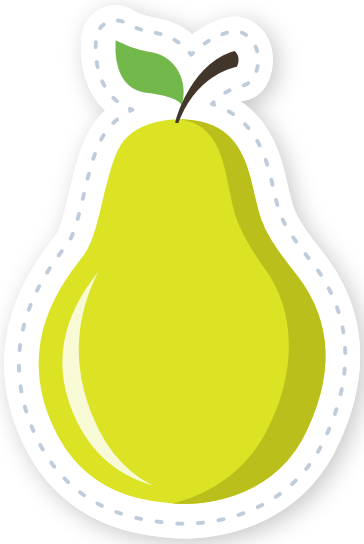


MATERIALS

- Color wheel spinner
- Markers/chart paper or whiteboard and markers for shared activity
- Lined paper for guided activity
- Drawing paper
- Crayons/markers/colored pencils for independent activity
- See recipe for ingredients
- Teacher materials:
  - » List-group-label steps sheet
  - » Student exercise/food log sheet master
  - » Student take-home recipe sheet

CONTENT STANDARDS

SCIENCE

5.1.1.g Share information, procedures, and results with peers and/or adults
5.1.1.h Provide feedback on scientific investigations
5.3.3.b Identify the role of producers, consumers, and decomposers in an ecosystem

MATH

MA 4.3.3.b Identify and use the appropriate tools, operations, and units of measurement, both customary and metric, to solve real-world problems involving time, length, weight, mass, capacity, and volume.

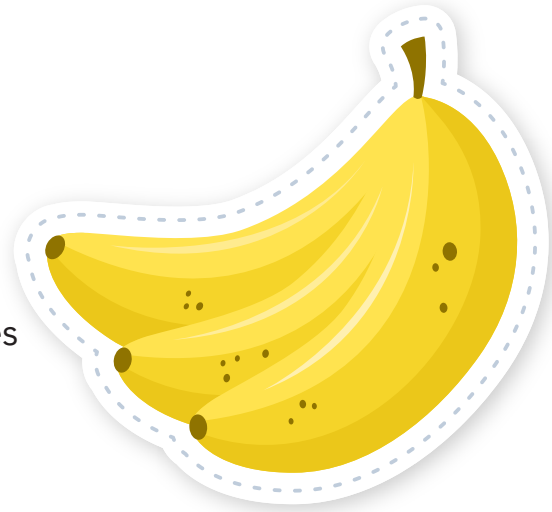
ELA

4.1.5.c Acquire new academic and content-specific grade-level vocabulary, relate to prior knowledge, and apply in new situations.
4.1.6.o Demonstrate an understanding of text via multiple mediums (e.g., writing, artistic representation, video, other media).
4.4.1.a Locate, organize, analyze, and evaluate information from print and digital resources to generate and answer questions and create new understandings.

LESSON

Objectives

- The students will categorize various fruits by color using list-group-label strategy
- The students will identify standard and non-standard measurements of serving sizes of fruits
- The students will use informational resources to compile nutrition facts for at least one fruit and present orally to peers using stand up/hand up/pair up cooperative structure



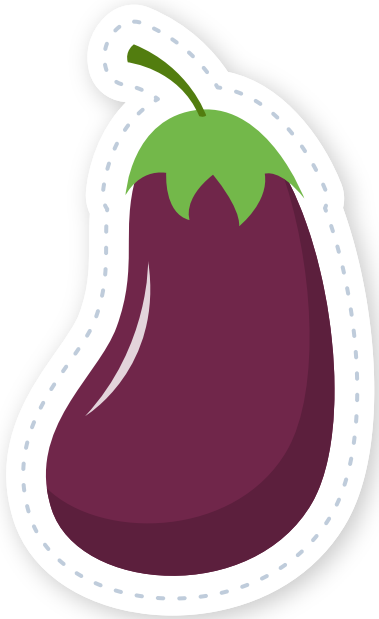
A+

- What healthy snacks or meals do you enjoy?
- What fraction of your plate should be fruits and vegetables? (answer: ½)

Vocabulary

- Fruit – the product of a tree or other plant that contains seeds and can be eaten as food
- Nutrients – something plants/animals/people need to live/grow

Modeled



Teacher: fruits are the product of a tree or plant that contains the seeds. Different colors of fruits have different nutrients our bodies need to be healthy, including fiber, vitamins, minerals, and antioxidants. Some foods considered vegetables are actually fruits, such as tomatoes or avocados.
We need about 5 servings of fruits/veg daily.
A serving is equal to one cup of fresh fruit

The teacher will list non-standard ways to measure servings:

- Whole fruit= size of baseball
- Frozen/canned/prepared = two open handfuls
- Dried fruit = 1/4 c = size of egg

Shared

Color Wheel Activity: The students will spin color wheel, name a fruit they know of that color. The teacher will keep a running list of student responses.
Optional: teacher creates color-coded list

Guided

The students will use list from shared activity to categorize groups of fruits/vegetables that go together, and determine a heading/label that justifies as a group

Independent

The students will each again spin the color wheel, and select one fruit of that color to research nutrients of and create fact sheet

Summary

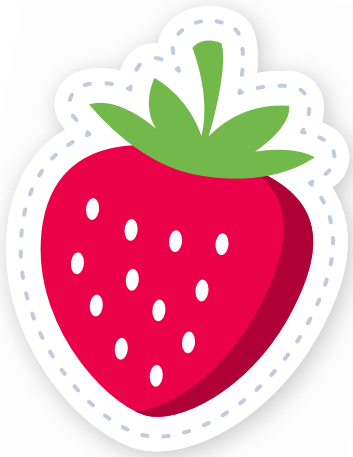
Use stand up/hand up/pair up to share fact sheets created during independent time

Home Challenge

Record your fitness and what you eat for 5 days

RAINBOW FRUIT SKEWERS

Ingredients

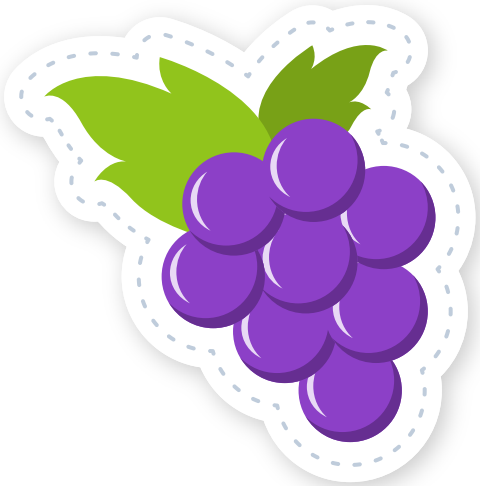


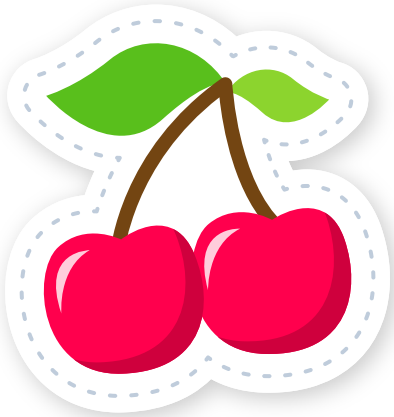
Kebob Skewers (1 Per Student)
Raspberries
Strawberries
Tangerines, Peeled
Mango, Chunked
Pineapple (Canned or Fresh, Prepared Easiest)
Kiwis, Peeled
Green and Red Grapes
Blueberries
Vanilla Yogurt, If Desired

*Any Combination of Available Fruit Can Be Substituted

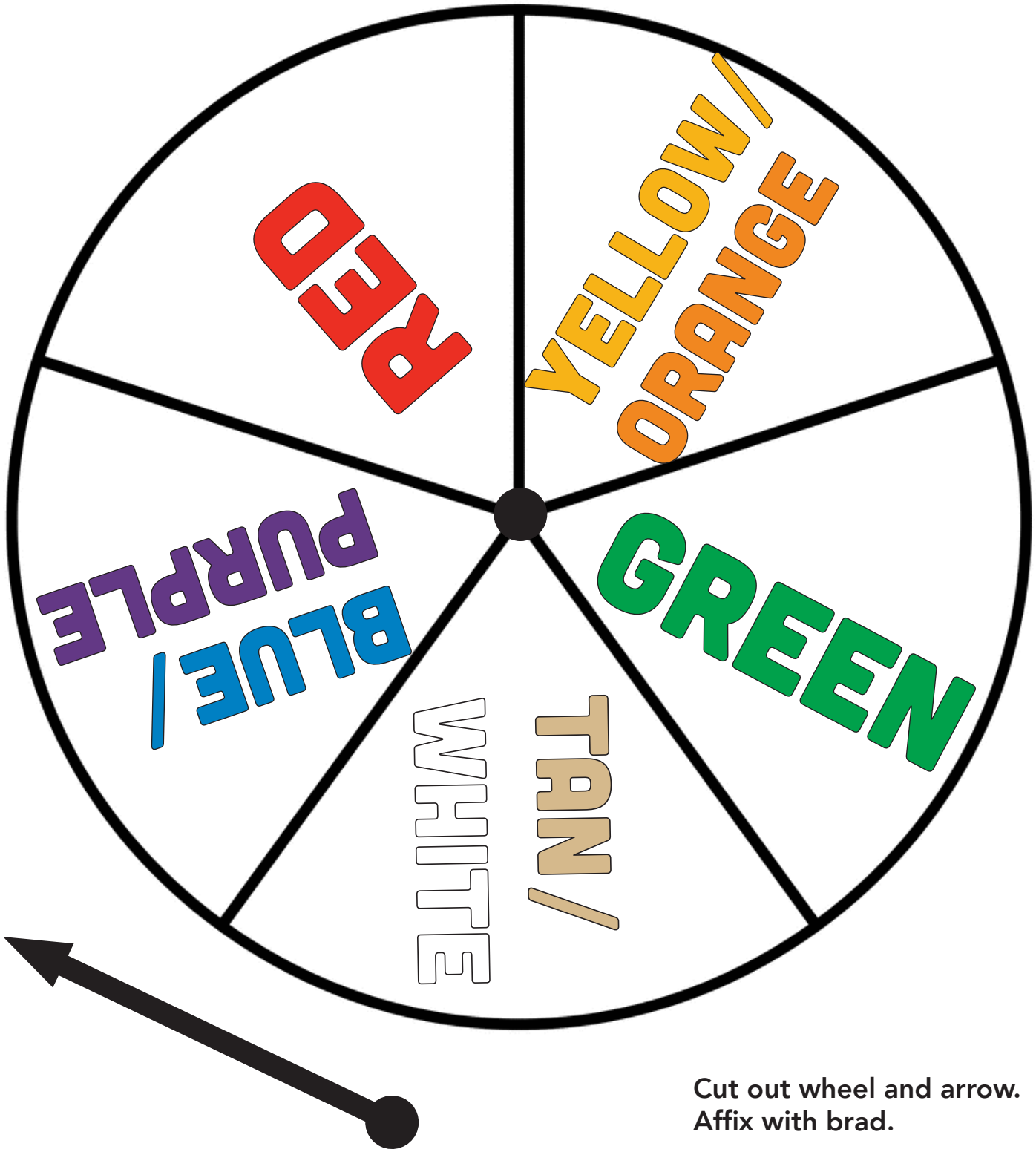
Instructions

Take 1 wooden skewer per student and thread the following fruit onto each: 1 raspberry, 1 hulled strawberry, 1 tangerine segment, 1 cube of peeled mango, 1 chunk of peeled pineapple, 1 chunk of peeled kiwi, 1 green and 1 red grape, and finish off with 2 blueberries. Arrange in a rainbow shape and let everyone help themselves. Serve with vanilla yogurt as a dip if desired.





COLOR WHEEL



Cut out wheel and arrow.
Affix with brad.

EXERCISE LOG

Name: _____

Daily Exercise Goal is 60 Minutes

	MORNING	DAYTIME	AFTERNOON	EVENING	SCREEN TIME	TOTAL
MONDAY						
TUESDAY						
WEDNESDAY						
THURSDAY						
FRIDAY						

FOOD LOG

Name: _____

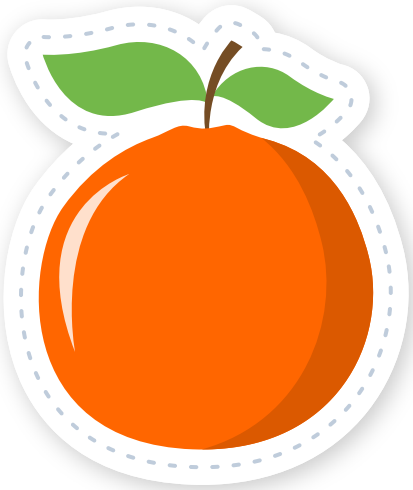
Daily Fruits/Vegetables Goal is= 5 1-cup servings

	MORNING	DAYTIME	AFTERNOON	EVENING	SCREEN TIME	TOTAL
MONDAY						
TUESDAY						
WEDNESDAY						
THURSDAY						
FRIDAY						

LIST-GROUP-LABEL STEPS

List-Group-Label Semantic Mapping Strategy

List-group-label is a form of semantic mapping. The strategy encourages students to improve their vocabulary and categorization skills and learn to organize concepts. Categorizing listed words, through grouping and labeling, helps students organize new concepts in relation to previously learned concepts.



Why use list-group-label?

- It helps students organize their understanding of specific vocabulary and concepts.
- It builds on students' prior knowledge about a topic.
- It actively engages students in learning new vocabulary and content by activating their critical thinking skills.
- It teaches categorizing and labeling skills.

How to use list-group-label

1. Select a main concept. In this activity it is "fruit."
2. List: Have students brainstorm all the words they think relate to the topic.
   - Visually display student responses.
   - At this point do not critique student responses. Some words may not reflect the main concept, but hopefully students will realize this as they begin grouping the words in the next step.
3. Group: Divide your class into small groups. Each group will work to cluster the class list of words into subcategories. As groups of words emerge, challenge your students to explain their reasoning for placing words together or discarding them.
4. Label: Invite students to suggest a title or label for the groups of words they have formed. These labels should relate to their reasoning for the grouping.

Source: http://www.readingrockets.org/strategies/list_group_label

Lesson #2

vegetables & gardening, plant parts, plant cycle

CONTENTS

MATERIALS

- Paper/pencils
- 6-page booklet for independent activity (1 copy per student of provided master, or 3 sheets of paper folded in half)
- Markers/crayons/colored pencils
- Magazines or grocery ads, if desired
- Teacher materials:
  - » Plant cycle mini poster
  - » Plant part mini poster
  - » 2 of each vegetable from different plant parts
  - » 10 paper bags (2 sets, # 1-5)

*optional: From Seed to Plant by Gail Gibbons

CONTENT STANDARDS

SCIENCE

5.1.1.d Make relevant observations and measurements

5.3.1.b Identify how parts of plants and animals function to meet basic needs (e.g., leg of an insect helps an insect move, root of a plant helps the plant obtain water)

5.3.2.b Identify the life cycle of an organism

4.4.1.a Locate, organize, analyze, and evaluate information from print and digital resources to generate and answer questions and create new understandings

ELA

4.1.6.o Demonstrate an understanding of text via multiple mediums (e.g., writing, artistic representation, video, other media).

4.4.1.a Locate, organize, analyze, and evaluate information from print and digital resources to generate and answer questions and create new understandings.

LESSON

Objective

- The student will identify parts of a plant that are edible (vegetables) and describe the sequence of the plant life cycle in order

A+

- How do plants get the energy they need to grow? (water/light/soil/space)
- What nutrient do people and plants have in common? (water)

Vocabulary

- Vegetable – part of a plant that you can eat
- Seed – product of a plant that can be used to grow a new plant
- Root – the part of the plant that grows underground and gets water from the ground. It also anchors the plant to the ground.
- Stem – the main part of the plant that supports the leaves and flower – the part of the plant from which seeds or fruits develop
- Leaf – flat, green part of the plant that grows from the stem

Modeled

Teacher: to grow a plant, we usually put a seed in the soil. This is the start of the plant life cycle. The teacher will lead discussion of the steps of a plant life cycle using provided visual. Roots grow underground and bring nutrients from the soil and water up to the rest of the plant. The shoot or stem then grows up from the soil, the leaves are attached to the stem and collect sunlight. Flowers turn into fruit or seed pod. The seeds can then be planted to start the cycle over again.

*Optional: Gail Gibbons – From Seed to Plant can be used during this portion

*If available, live plants in a garden setting can be used to show plant parts

The teacher will list non-standard ways to measure servings:

- Just as with fruits, 1 serving = 1 cup fresh
- Raw veg = size of baseball or 2 open hands
- Raw veg = size of baseball or 2 open hands
- Cooked veg = 1/2 c = one handful

Shared

Mystery Vegetable Bag: Place two each of five different vegetables in paper bags numbered 1-5. Have students sit in small groups and pass the bags around and ask the students to guess or describe the vegetables inside only by touching or smelling them.

The student will share vegetables they like to eat, teacher creates running list.

Guided

The student will work in pairs to categorize vegetables from shared activity by their matching plant part that is commonly eaten: root (such as carrots/potatoes/beets), leaf (lettuce/kale/spinach), stem (celery/asparagus), flower (broccoli/cauliflower florets are flower buds), or seed (such as peas/beans/grains).

*Fruits commonly eaten as vegetables could also be in a category labeled "Fruit" to create connection to previous lesson.

Independent

The student will create plant part book, which lists at least one vegetable from each plant part. Students may illustrate, cut images from magazines/grocery ads, or print images from online. Students must provide at least one nutrient provided by each plant part

Summary

The student will compile plant part snack wrap, and identify which plant part each ingredient comes from.

Discuss in pairs, or small/whole group: What are some new ways you could add fruits or vegetables to your diet?

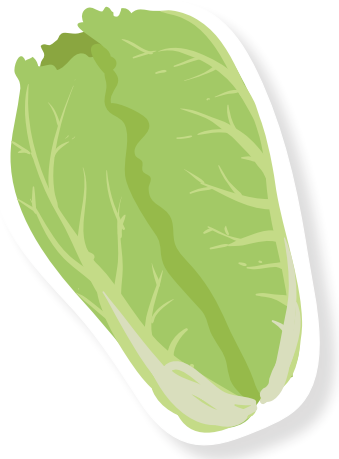
Home Challenge

- Identify which plant parts you are eating in your food log
- Quiz family members to idenitify plant parts eaten in a meal

PLANT PART SNACK WRAP

Ingredients

Hummus
Lettuce leaves (romain or butter lettuce works best)
Broccoli florets
Shelled, raw peas (sugar or snap are easiest, students could also shell from pods during assembly)
Chopped celery or asparagus
Grated carrots (can be purchased prepared or grated using a cheese grater)



Instructions

Spread a small scoop of hummus on lettuce leaf. Add some of each other ingredient. Roll wrap and enjoy!

PLANT PART BOOKLET

Instructions

Print the next three pages double sided, leaving the non-printed side as a cover for the students to decorate. Or have students construct their own plant part booklets!

FRUIT

SEED

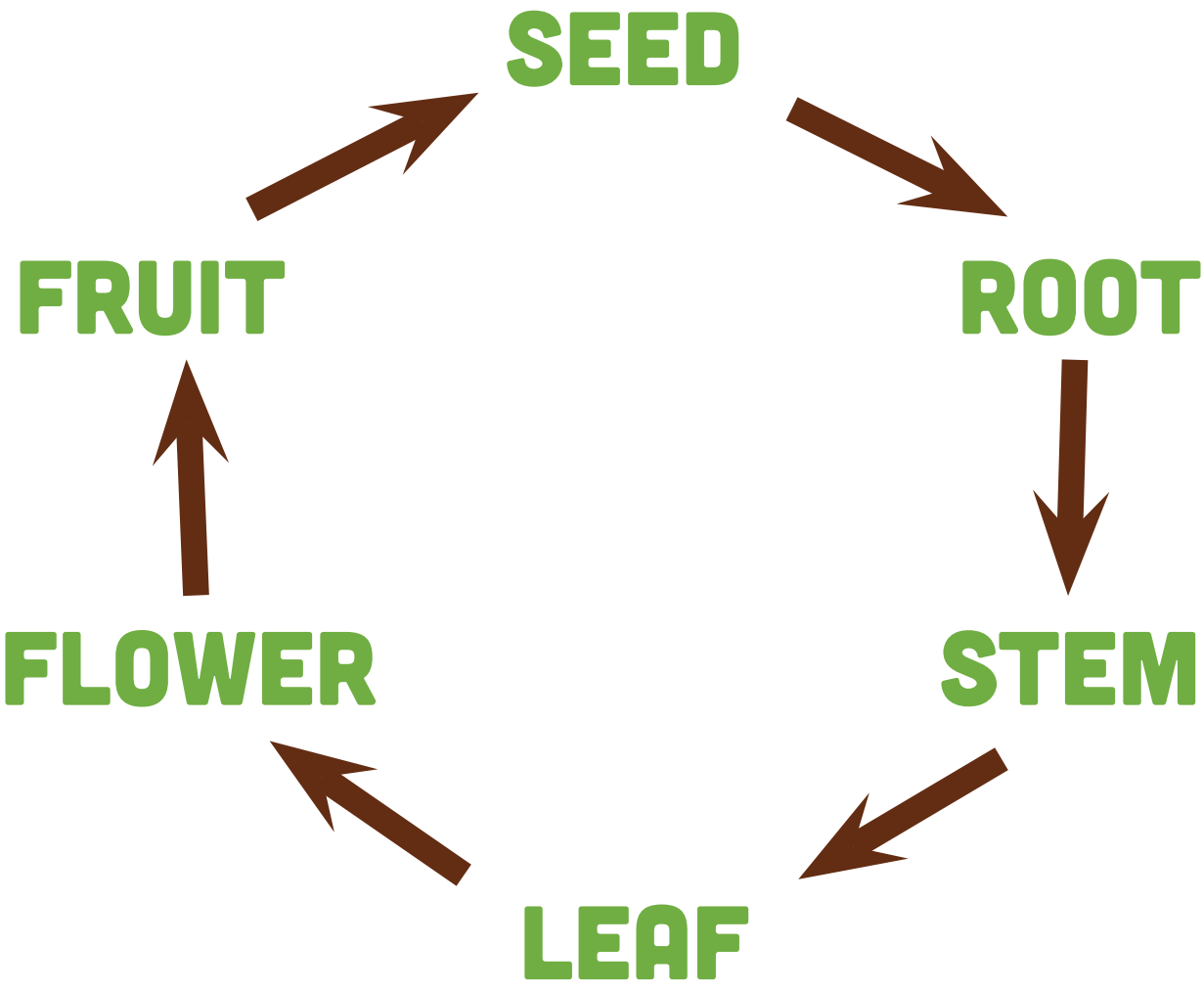
FLOWER

ROOT

LEAF

STEM

LIFE CYCLE OF A PLANT



PARTS OF A PLANT

SEED

STEM

FLOWER

ROOTS

LEAF

FRUIT

Lesson #3

water & sugar

CONTENTS

MATERIALS

- Paper/pencil
- Optional: calculators for dividing, or checking division quotients
- Drawing paper
- Crayons/markers/colored pencils
- Teacher materials:
  - » Sugar shocker mix and match data and key

CONTENT STANDARDS

SCIENCE

5.1.1.e Collect and organize data
5.1.1.i Use appropriate mathematics in all aspects of scientific inquiry

MATH

4.1.2.d Divide up to a four-digit whole number by a one-digit divisor with and without a remainder

4.1.2.h Determine the reasonableness of whole number products and quotients in real-world problems using estimation, compatible numbers, mental computations, or other strategies

ELA

4.1.6.j Identify and apply knowledge of organizational patterns to comprehend informational text (e.g. Sequence, description, cause and effect, compare/contrast, fact/opinion)

4.2.2.a Communicate information and ideas effectively in analytic, descriptive, informative, narrative, poetic, persuasive, and reflective modes to multiple audiences using a variety of media and formats

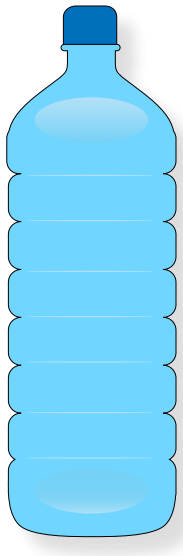
LESSON

Objectives

- The students will use estimation to predict healthiness of a set of beverages by reading nutrition labels, calculate actual sugar amounts in teaspoons using division skills, and determine healthy beverage choices based on calculations
- The students will create a poster or other presentation to persuade others to drink more water

A+

- How long do you think a person can survive without water?
- How many cups of water do you think you drink in a day?
- How does that compare to other beverages you drink such as juice or sodas?



Vocabulary

- Carbohydrate – an energy source found in many foods
- Sugar – sweet substance used to make foods sweeter
- Hydrate – to supply something or someone with water

Modeled

Teacher: our body loses water each day through functions such as sweating, going to the bathroom, and even when you breathe. Our bodies lose water even faster when the weather is warmer, or if you are physically active. While other beverages contain water, they do not contain many nutrients and often have a lot of sugar added to them. Sugar is one kind of carbohydrate. Today we will look at some different beverages and determine which are the healthiest choices.

The teacher will model how to locate carbohydrates and sugar amounts on a nutrition label.

Shared

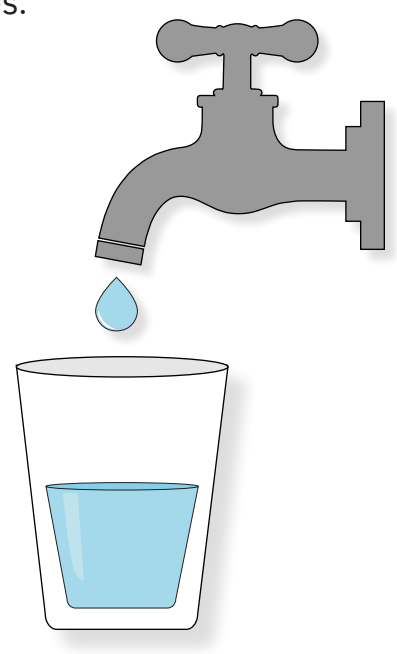
Sugar Shocker Mix and Match: The students will use predicting skills to rank list of beverages from healthiest to unhealthiest based on amount of sugar each contains.

Guided

Sugar Shocker Mix and Match: The students will use division to convert from grams to teaspoons (total sugar amount from nutrition label, divided by 4) to quantify amounts of sugar in a selection of beverages. The students will compare predictions to outcomes.

Independent

The students will create persuasive poster or other presentation that could be used to convince others to drink more water, such as listing the benefits of water and the cons of consuming sugary beverages.
*Optional: could be done in partners or small groups to provide peer support



Summary

Students will present persuasive posters, taking turns in small groups of 3-5 students

Home challenge

- Drink one 6-8 ounce glass of water before each meal for one day
- Challenge your family members to join you

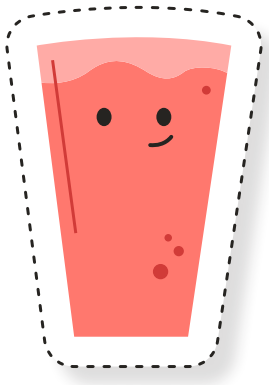
WATERMELON-LIME AGUA FRESCA

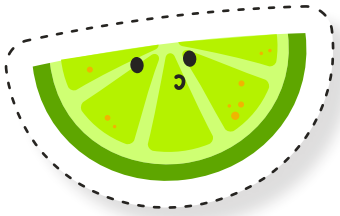
Ingredients

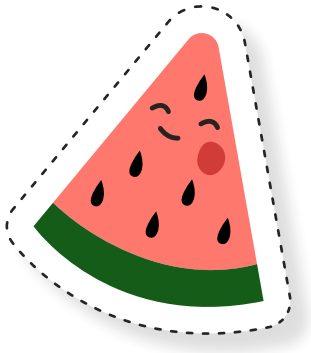
Drinking cups (1 per student)
2 pounds seedless watermelon, cubed
4 cups of water
Juice of ½ lime
Ice

Instructions

- Put all ingredients except ice in blender until smooth
- Pour mixture through a strainer (optional) into a pitcher
- Chill at least 30 minutes
- Serve over ice in cups







SUGAR SHOCKER MIX AND MATCH

Name: _____

There are 4 grams in teach teaspoon.

RANK	BEVERAGE	SUGAR IN GRAMS	SUGAR IN TEASPOONS
	Fanta	45 g	
	Caprisun	14 g	
	Rockstar	31 g	
	Grape Juice	36 g	
	Gatorade	22 g	
	Lemonade	19 g	
	Sunny D	14 g	
	Orange Juice	24 g	
	Chocolate Milk	25 g	

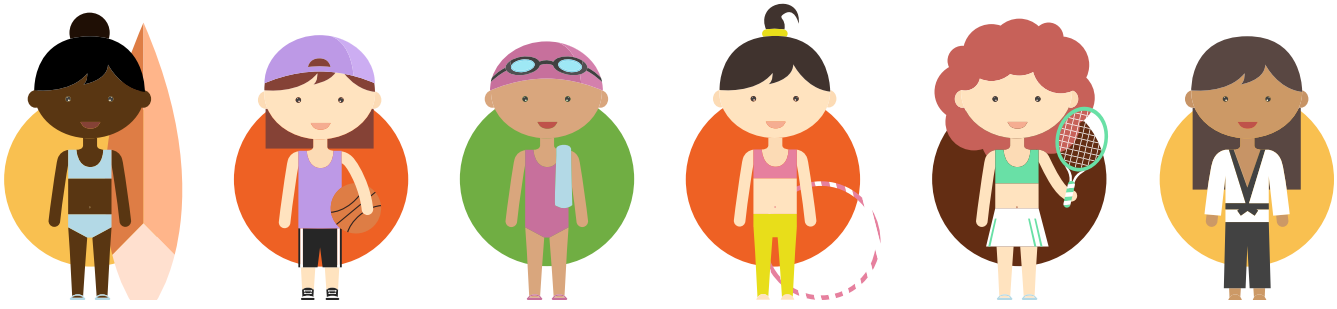
Lesson #4

limiting screen time & daily fitness

CONTENTS

MATERIALS

- Student copies of 60 minute fitness plan grid
- Pencils
- Scratch paper
- Teacher materials:
  - » Sample 60 minute fitness grid
  - » Note cards or sticky notes



CONTENT STANDARDS

MATH

MA 4.3.3.b Identify and use the appropriate tools, operations, and units of measurement, both customary and metric, to solve real-world problems involving time, length, weight, mass, capacity, and volume.

ELA

LA 4.1.5 Vocabulary: students will build and use conversational, academic, and content-specific grade-level vocabulary.

LA 4.2.1.c Gather and use relevant information and evidence from multiple authoritative print and/or digital sources to support claims or theses.

LESSON

Objective

- Students will use a chart and show elapsed time to calculate 60 minutes of daily fitness activity

A+

- How many televisions, game consoles, computers, or tablets are in your home?
- How many minutes of screen time do kids spend every day? (4-6 hours!!!)

Vocabulary

- Screen time – any time spent using a device such as a TV/game console/computer/tablet
- Physical exercise – any bodily activity that enhances or maintains physical fitness and overall health and wellness

Modeled

Teacher: it is important to make time for physical exercise every day. We can make time to exercise by playing sports, walking, or riding a bike. Every day activities such as gardening, mowing the lawn, or vacuuming also provide a small workout. Physical exercise has many health benefits: it strengthens your heart and lungs, helps control weight, strengthens bones and muscles, increases energy levels, and even helps us feel better emotionally.

Shared

Exercise Charades: The students will make a list of ways they can exercise; the teacher will write ideas on note cards or paper strips to use for charades.

The students will use charades to act out different fitness activities. The student who guesses correctly takes the next turn to act out.

Guided

Dictionary Dynamos: The teacher will label areas of the room with dictionary letter headings: A-G/H-M/N-S/T-Z

Students will each get one charade card, and hop on two feet to the dictionary heading that matches their card. Once all students are in their group, students will work together to arrange themselves in alphabetical order. Mix and redistribut cards to play subsequent rounds.

Independent

The students will create a schedule that shows where they can plan 60 minutes of exercise in their daily lives; the teacher will provide a model and provide guided support as necessary to provide differentiation.

Summary

The students will use stand up-hand up-pair up to share independent activity, share whole group. Teacher: after hearing your classmates' schedules, would you make any changes to your own?

Home Challenge

Try out your 60 minute plan for a week, track how well you stick to it.

TRAIL MIX

Ingredients

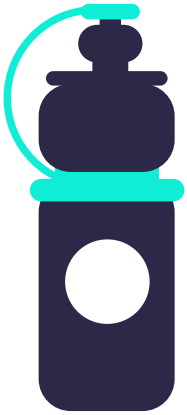
2 cups cheerios or chex
1 cup pumpkin seeds (shelled)
1 cup sunflower seeds (shelled)
1 cup dried cranberries or rasins
1 cup chocolate chips
2 cups popped popcorn

Instructions

Mix all ingredients and serve

MODEL SCHEDULE FOR INDEPENDENT ACTIVITY

	ACTIVITY	TIME	ELAPSED TIME
MORNING	Walk to school	8:15-8:30 am	15 minutes
DAYTIME	Recess	2:00-2:15 pm	15 minutes
AFTERNOON	Walk home from school	4:05-4:20 pm	15 minutes
EVENING	Gardening	6:00-6:15 pm	15 minutes



Lesson #5

aerobic fitness, sets & reps

CONTENTS

MATERIALS

- 2-3 decks of cards, numbers 3-9
- Enough yarn balls or other signifier for about 1/3 of students
- Paper/pencil for creating aerobic workout plan

CONTENT STANDARDS

MATH

Ma 4.2.3.a Solve real-world problems involving multi-step equations comprised of whole numbers using the four operations, including interpreting remainders.

LESSON

Objectives

- The students will use multiplication and addition to calculate sets and reps for aerobic workout plan.
- The students will solve 2-step problems using multiplication and addition using three card pursuit activity.

Vocabulary

- Aerobic activity – any activity that gets your heart and lungs working

Modeled

Teacher: most of the fitness activities you choose should be aerobic, which are activities that get your heart and lungs working. This includes activities like running, biking, or swimming.

Shared

The students will name aerobic activities; the teacher will keep a running list.

Teacher: we will group together 3 aerobic activities and create a workout routine. We will use multiplication to show the total times each activity is completed. For example: do 10 sit ups, jump rope 20 times, do 10 push ups- these are called reps, the number of times you complete each move; complete this set of activities 3 times. Calculate how many times you did each activity by multiplying each rep by 3, and then add the sets together.

Sit ups: 10x3=30

Jump rope: 20x3=60

Push ups: 10x3=30

30+60+30=120

Guided

Teacher: today we are going to use a fitness activity to practice 2-step problems using multiplication and addition.*

Three Card Pursuit

Each student receives 3 cards. 1/3 of the students will use a yarn ball or other signifier to be the pursuer and tag a partner. Each player uses their 3 cards to multiply the 2 larger numbers and add the third number. The player with the larger answer gets or keeps the yarn ball and finds a new partner. Play continues until teacher calls time.

*Can be modified to 2 cards for multiplying, or students may add all three cards to provide differentiation.

Independent

The students will create their own 3-activity aerobic workout plan and calculate reps and sets for the plan.

Summary

The students will use stand-up, hand-up, pair-up to sharre independent work.
Teacher: After hearing your classmates' plans, what would you change? What new activities could you add?

Home challenge

Try aerobic workout plan at home for 5 days. Track your progress.

PEAR & POMEGRANATE SALSA

Ingredients

1 cup pomegranate seeds
1 large pear, chopped (about 2 cups)
¼ cup finely chopped red onion
¼ cup finely chopped cilantro
1 lime, juiced
Multigrain tortilla chips

Instructions

Combine all ingredients in a bowl and stir well.
Serve with multigrain tortilla chips.

CITY SPROUTS GROW WITH US

CITY SPROUTS SOUTH CRECE CON NOSOTROS

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