## COOKING AND MATH

Designed for Grade Levels -1-2
Written by Elizabeth Robinette

# Project coordinated by <br> Saint Paul Public Schools Community Education in collaboration with St. Paul Sprockets Network 

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FOUNDATION youthprise


## COURSE DESCRIPTION:

 Youth will focus on key math standards through fun and exciting cooking activities. Each participant will work together to create recipes, learn basic cooking skills, meet new friends, and make a delicious meal everyday.
## Additional Program Resources:

http://youthhealth.org/kid/recipes/\#khsc
http://www.superhealthyyouth.com/healthy-youth-recipes.php

## MN STATE STANDARDS AdDRESSED:

1.3.2.1 - Use basic concepts of measurement in real-world and mathematical situations involving length, time and money.
1.1.1.2 - Read, write and represent whole numbers up to 120 . Representations may include numerals, addition and subtraction, pictures, tally marks, number lines and manipulatives, such as bundles of sticks and base 10 blocks.
1.2.1.1 - Create simple patterns using objects, pictures, numbers and rules. Identify possible rules to complete or extend patterns. Patterns may be repeating, growing or shrinking. Calculators can be used to create and explore patterns.
1.2.2.1 - Represent real-world situations involving addition and subtraction basic facts, using objects and number sentences.
1.3.2.3 - Identify pennies, nickels and dimes; find the value of a group of these coins, up to one dollar.
2.1.2.1 - Use strategies to generate addition and subtraction facts including making tens, fact families, doubles plus or minus one, counting on, counting back, and the commutative and associative properties. Use the relationship between addition and subtraction to generate basic facts.
2.1.2.5 - Solve real-world and mathematical addition and subtraction problems involving whole numbers with up to 2 digits.
2.3.3.5 - Identify pennies, nickels, dimes and quarters. Find the value of a group of coins and determine combinations of coins that equal a given amount.

## Program Quality - Youth Program Quality Assessmient (YPQA)

St. Paul Public Schools Community Education identifies quality programming as: safe, supportive, interactive and engaging. Simple, specific examples of program-design related goals are below.

## Safe Environment (Physical and Psychological)

- Be on time
- Choose healthy foods
- Choose appropriate activities for your space
- Choose age-appropriate \& inclusive resources (music, images, etc.)
- Maintain school-day norms (no running, respectful of space)
- Manage classroom behavior for the safety of all
- Follow safety procedures and be prepared for emergencies
Supportive Environment
- Be inclusive of different learning styles, cultures, abilities and family structures. Utilize diverse images, games, music, etc.
- Choose encouraging words and develop an encouraging learning environment
- Maintain a professional appearance and wear staff identification
- Use group work, partnering, and aid in building relationships


## Interaction

- Youth partner with each other and adults
- Regardless of age - have high expectations for all participants
- Encourage youth choice and self-directed learning opportunities
- Develop a learning environment where youth experience belonging
- Be prepared so you have time for youth choice and adult/youth interaction
Engagement
- Activities are hands-on and encourage multiple types of learning
- Include and facilitate youth choice
- Activities are challenging
- Reflection - all classes end with a reflection question and discussion time



## PROGRAM QUALITY - INTENTIONAL INCLUSIVITY

Instructors are expected to intentionally create inclusive environments. Examples include:

- Use images/books/music, etc that is diverse across age, gender, ability, race, culture, nationality, sexual orientation, etc.

Example: if you are leading a session on the Winter Olympics include athletes/sports from the Paralympics and Special
Olympics, athletes from multiple countries, etc.

- Religious holidays are not neutral and should only be used as a relevant instructional tool.

Example: Learning about Dia de los Muertos as a cultural celebration in Spanish class is a relevant instructional tool. Making Christmas ornaments in an art class or doing an Easter egg hunt in dance class are not relevant instruction.

- Use inclusive language when talking about families.
Example: Say "bring this home and show it to someone you love" or "share this with your family" rather than saying, "bring this home to your mom and dad." Do not make assumptions about family structure.
- Create learning opportunities that draw on multiple learning styles.
- Create flexible plans to find time to draw on the unique passions and abilities of your group of youth.



## Curriculum Quality - WHat is Ganag?

GANAG refers to a teaching schema where "a instructor using the 'Teaching Schema for Master Learners' designs lesson deliberately so as to prepare participants for learning, help them connect new information prior to learning, and cement those ideas or skills. When the schema is used regularly for planning, it becomes automatic to think about teaching to the master learner" (Pollock 64).
Concepts and ideas presented in the following table are extracted from Jane Pollock's text, Improving Participant Learning One Instructor at a Time.

| G <br> Set the Goal/Benchmark/Objective | Instructor (and/or youth) identifies goals/benchmarks for a lesson along with specific daily content objectives. At the end of the day's session, the instructor and participants can evaluate if they have accomplished their goals and whether to move on or perhaps re-visit concepts if needed. |
| :---: | :---: |
| A <br> Access Prior Knowledge | The goal is to provide stimulus that relates in some way to the session content. The instructor plans an activity, question or demonstration to spur connections to previous learning, life experience or knowledge of subject matter. |
| Acquire New Information | Present new information to youth through a variety of activities - ideally connecting to their senses (i.e. hearing a presentation or a lecture, seeing a video, hands-on cooking, etc.). Additionally, sessions include a combination of declarative and procedural content. <br> Declarative $=$ facts $\&$ information. Procedural $=$ skills \& processes. |
| A <br> Apply Knowledge | Knowledge gains meaning if you can apply it again in a reliable and accurate way. Youth need handson opportunities to explore, test, challenge, and apply content. |
| G <br> Generalize or Summarize | A reflective exit activity that demonstrates youth understanding is essential in providing teaching for mastery learning. Reflection allows youth the time to synthesize their experience/learning within the context of the group. Additionally, this element provides instructors with insight on participant learning and guidance on pacing future sessions. |

## SESSION LA YOUT - SCOPE AND SEQUENCE

| TRICKS OF THE <br> TRADE | Session 1: <br> In the Kitchen | Session 2: <br> Cookbooks and Recipes | Session 3: <br> Scrambled eggs <br> Cutting, chopping, mincing | Snack attack challenge <br> Sitchen team work |
| :---: | :--- | :--- | :--- | :--- |
| FRACTIONS | Session 5: <br> Quesadilla <br> What is a fraction? | Session 6: <br> Fruit Pizza <br> Drawing a fraction | Session 7: <br> Building a house using <br> fractions (using different <br> locations for houses) <br> Fractions | Session 8: <br> Tortilla pizzas <br> Fractions |
| ADDING/ | Session 9: <br> Homemade play dough <br> Adding two-one digit | Session 10: <br> Pasta salad <br> (Noodles made the night <br> before) <br> Adding one digit numbers | Session 11: <br> Fruit kabobs <br> Subtracting one digit | Session 12: <br> Peach and banana pita pockets <br> Subtracting one-two digit |
| PATTERN | Session 13: <br> Chex mix <br> What is a pattern | Session 14: <br> Fruit popsicles <br> How to make a pattern | Session 15: <br> Popcorn/noodle art <br> Creating patterns in action | Finding a pattern |

## Glossary of Ice Breakers/Warm Ups

## 1. Around the World

Start by matching two participants up and holding up a flash card. The participant who gives the answer the fastest, gets to "advance" by going to the next participant and compete again. The math participant who wins that round will advance to the next participant. This process continues until you wish to stop playing. The participant with the most problems correctly answered is the winner.

## 2. BuZZ (MONEY)

All participants stand in a circle and count as a group. Every time you get to a multiple (you pick the number) they say buzz instead of the number. If they don't say buzz, then they have to be out and sit down. For the money version, you can say every time you get to a nickel or dime and have the participants practice counting

## 3. SKIP

The instructor or a responsible participant goes through the class and counts all of the participants. The next time they count they will skip some participants. The participants that the counter skips jump up to the front. When they jump up to the front, they count how many participants were skipped and subtract it from the total number of participants in the class. Each time a different number of participants can be skipped and the totals will vary.

## 4. TOP-IT

Break the youth into pairs. Each participant picks two playing cards and flips them over. They add their total of the two cards they flipped. The partner with the highest total gets one point. They can keep track of their points on a scratch piece of paper. When time is up, they count their points and whoever has the most points wins.

## 5. Chicken Crossing

Break the class into two teams and form two lines facing each other. The instructor will yell out an addition or subtraction problem. The first team to answer the problems gets to "steal" that amount of participants from the other team. For example $6-3=3$. The first team to answer gets three more people. The team with the most people at the end of the game wins!

## 6. Quick Pick

Count the number of participants in the classroom. Write that number on the board as a denominator with no numerator. Pick one person to be in the middle as the counter. That participant will count to ten. While they are counting, the rest of the group will run and pick a corner. When the participant is done counting to ten, he/she will pick one corner. $(1,2,3$, or 4$)$ when they pick that corner, the youth in that have to tell what fraction of the whole class they represent. (Example- there are 12 youth in this corner out of 24 we make $12 / 24$ ). If they get it right, they get to stay in. If they don't, they are out and sit down. The last participant standing wins.

## 7. Clock Time Buddies

Each participant will create a clock using a paper plate. Each student can draw 12 lines large enough to fit a name on them. Place the lines where the numbers would go. The youth can draw the numbers as well. They will go around the classroom and find a partner for each hour on the clock. The instructor can give directives like, "for your 1'oclock buddy find someone who has the same favorite color as you."

## 8. Move your Feet

Stand in a circle with the class. There will be one person in the middle. They share something they like. Once they share, everyone who likes the same thing finds a new spot in the circle. Their new spot should be at least two people away from where they already are. The last person to find a spot is in the middle. Make sure to talk about not bumping into each other and being careful while they are running around. Note: you will need to place markers on the floor for "spots" (scrap paper works) or you can use chairs.

## 9. Top-it Multiplication

Break the youth into pairs. Each participant picks two playing cards and flips them over. The youth multiplies their two cards they flipped. The partner with the highest total gets one point. They can keep track of their points on a scratch piece of paper. When time is up, they count their points and whoever has the most points wins.

## 10. Fact Pass

For this game you will need a small ball. One participant will start with the ball and pass it to another participant. When they pass the ball, they will give them an addition or subtraction problem. The participant will answer the question and then pass the ball to the next participant. Challenge your group for: accuracy, speed, difficulty - whatever is a good fit for the day.

## 11. Sneak Attack

Make a circle and have all of the participants link their hands behind their backs. One participant stands in the middle. They have two choices they can either fake throw it, or really throw it underhand to another participant.
a. If the participant in the middle really throws it and:
i. The participant catches it: they are still in
ii. Drops it: the participant is out and sits down
b. If the participant fakes them out
i. If they unlink arms: they are out
ii. If they keep their arms linked: they are still in
c. The goal is to not be tricked!

## ICE BREAKER Warm Up 10 minutes

## CREATE KITCHEN <br> RULES 20 minutes

Sharing kitchen RULES 10 minutes

## Reflection 5 MINUTES

## ACCESS PRIOR KNOWLEDGE:

Play Move Your Feet (see Icebreakers)
Participants sit in a circle. Go around and ask their names and ask them to share one or two things they have cooked or helped their parents cook at home.

## NEW INFORMATION:

Draw their prior knowledge about cooking and using the kitchen utensils. What have you done in the kitchen to help? Does anyone know some rules? How can we work together to cook a meal? Make a list on the board of everything they are saying. Remember, this is a brain storming time, so make sure you write down everything. If it is already on the board, make a star next to it so the participant knows their idea was valued. "Now that we have a big list of things you can do in the kitchen, let's focus on just one part of being a special chef, the rules!" Emphasize the rules that are already on the board by putting a star next to them, or highlighting them. Then ask the class, "Who thinks they can make even more kitchen safety rules?"

Split the class into groups of about 4. Give them each a poster board/large sheet of paper and markers. Help each group label the top of their paper with the title "kitchen routines/safety rules". Tell the youth to write different rules they use in the kitchen. Some examples may include: Walk when you are holding a knife. Knives are used for cutting food only, team work is necessary in the kitchen, wash our hands, be careful with hot surfaces, walking only in the kitchen, if you drop a tool on the ground - wash it before using it again.
Items at least one poster must cover (so you can reference later): Knives, running, hot items, washing hands, teamwork, cooperation. If youth are having trouble writing the rules, have them draw pictures to explain what they mean.

## Application:

Snack: before the next step have youth try a healthy snack they may not tried before.
Each group presents their posters. Remind the other participants to listen, ask questions, and reflect on each group's poster. At the end of each presentation, have the large group share their feedback. Hang posters in the space where you will be cooking in upcoming sessions (if you cannot leave them up, bring them each session). Add any rules the youth didn't say that you find necessary. Make sure you emphasize the teamwork and cooperation it took to create the rules also.

## Generalization:

Who is someone that you can share what you learned today with? Go to that person and share what you learned!

- Whiteboard
- Whiteboard marker
- 4 poster boards
- Poster markers


## Suggestions for making today's activities more challenging:

Challenge participants to role play kitchen situations where they might need to use the rules in the kitchen.
Suggestions for making today's activities less challenging:
Let the participants draw pictures of the rules instead of writing them.

SESSION 2
ICE BREAKER
15 MINUTES

## CREATING RECIPES

 15 MINUTES
## CREATING OUR COOKBOOKS 10 MINUTES

## REFLECTION 5 MINUTES

Goal: Participants Will know and understand The Partis of a recipe Participants Will be able to read and create their cookbooks

## ACCESS PRIOR KNOWLEDGE:

Ask:"What is a recipe?" "Could you create a recipe?" With no additional instructions, have youth get in groups of three and write a sample recipe.

## NEW INFORMATION:

Have youth share their recipes to the whole class calling on one group at a time. While the youth are talking, write down some of the major similarities the recipes have on the board. Focus on the structure of the recipe, not the actual contents (ingredients, supplies/utensils, directions, serving size).
After all groups have shared, talk about the list that you created together. Ask the participants if each recipe had all of the parts that are listed on the board. Reflect on the list, and add to the list as participants share answers of other materials/steps that may be included in a recipe Put a poster board/large piece of paper on the white board and create a simplified list of recipe parts. When you are done, you will ideally have the five recipe components below:

- Ingredients- what food/liquid items we add into the dish we are making
- Supplies/utensils- what supplies do you need to make the meal? A bowl, spoon, knife, etc.
- Directions- what steps do we need to follow to complete our recipe?
- Measurements
- Serving size/yield

Discuss what goes into each part, and how to read each part use the sample recipe to show each part.
(Found in the instructor supplement section). Talk about adapting recipes to add some unique
personality to the recipe. Some ways to change a recipe are: adding food coloring, adding extra materials, substituting materials to make it healthier or because of allergies, being adventurous.

## Application:

Snack: before the next step have youth try a healthy snack they may not tried before.
Pass out one copied cookbook to each participant (see addendum). They can decorate the cover with their names. Go to the first page of the cookbook (you will find the recipe list that you just made on the board) and have participants create a drawing to symbolize each step. Instructor keeps books for each session.

## Generalization:

People use recipes so they can keep some of their most favorite recipes in their homes and pass them down to their friends and family. If you could leave one recipe for someone in your family who would you make it for and what would you make?

## Materials Needed

- Piece of paper per 3
participants
- Pencils
- Poster board
- Poster markers
- Cook book materials
- Markers, crayons, or colored pencils
- White board
- White board markers
- Pencils
- Recipe sample (see addendum)
- Pre-made cookbooks
- Crayons
- Stickers (one sheet)
- Pencils

Suggestions for making today's activities more challenging:
Label the parts of a recipe by posting a picture of a giant recipe on the board and having youth label them (instead of labeling them before you hang the poster on the board).
Suggestions for making today's activities less challenging:
Have participants draw symbols for the words instead of writing the words.

## ACCESS PRIOR KNOWLEDGE:

## Warm Up 5 MINUTES

Cutting, Chopping, Mincing 15 MINUTES

## SEsSion 3 <br> Continued:

EgGS
20 minutes

## Review the kitchen rules posters.

Ask the participants if they have ever used a knife before. Ask the participants if anyone knows how to carry a knife properly. Show the youth how to carry a knife properly (point knife down, hold the handle like you are shaking a hand, knife pointing sharp end towards your back, and knife is at your side by your leg). Explain that we hold the knife like this, so if we trip and fall it will not hurt us. Ask a couple participants to demonstrate the correct way to hold a knife by coming to the front and showing the group.

## NEW INFORMATION:

Explain to the class that today we will be making scrambled eggs and practicing knife safety while learning to: mince, chop, and cut. Ask them if they know the difference between the three things.

Split participants into pairs. Give each group a half of a bell pepper. First we are going to learn how to cut. Show the participants cutting means to use the knife to slice larger pieces. Cut your pepper into long thing slices (about french fry size). After you cut a couple slices, write on the white board "cut - use the knife to slice into big pieces." With each step give a definition for youth to write in their cookbooks. Next we will learn how to chop. Cut your pepper into smaller square pieces (the size of a ticktack). Have participants write the definition of chop in their cookbooks. Demonstrate how to mince - to use a knife to cut into pieces smaller than ants, so small you can barely pick them up. Demonstrate how to mince your pepper.
Show the participants some helpful hints to using a knife. Below are some pointers when working with knives and youth.

- When holding the knife, pretend like you are shaking someone's hand and hold a tight firm grip
- Make an upside down $U$ shape with your opposite hand, use the $U$ shape to hold the food item
you are trying to cut, the knife should always go inside the $u$, and your knife should never be close to the U .
After reviewing the safety rules, break youth into pairs, hand a knife out to each pair and allow them to cut half of a pepper. They can cut, chop then mince the whole half. Make sure to never turn your back to the youth. Collect all of the peppers in a big bowl.


## Application:

When the participants finish cutting, chopping and mincing have each participant crack an egg into a separate big bowl. Have the participants crack the egg one at a time in a cup, and then they can dump it into the big bowl. This will avoid having to dig in the big bowl to take out a shell.
Turn on the griddle to heat up. When each participant has cracked an egg, have a couple helpers add the peppers to the eggs. Ask for two volunteers to be your cooks, demonstrate to the whole class to stay away from the griddle because it is hot. When you are by the griddle, make sure you use the following safety rules:

- Keep your elbow up
- A couple knives
- Kitchen rules posters from session 1
- White board
- White board marker
- A large bowl
- A knife for instructor example
- A knife for every two participants
- 1 bell pepper (green, red, or yellow) per 2 participants
- Cutting board (1 per pair of youth)
- Youth cookbooks
- pencils


## - Pencils

- Cookbook
- Eggs
- A large bowl
- An electric griddle
- A spoon/large fork
- Three spatulas
$\left.\begin{array}{|l|l|l|}\hline & \begin{array}{l}\text { • Stir slowly } \\ \text { - Never set the spatula down on the hot surface } \\ \text { • Keep all body parts away from the surface }\end{array} \\ \text { Pour the eggs on the griddle and have your cooks help stir. You may need to start the initial cooking } \\ \text { process just so your eggs don't leak off the griddle. While the eggs are cooking, have the participants } \\ \text { clean up the room. Pick a couple helpers to set up a plate and fork for each participant. Eat \& Clean } \\ \text { up. }\end{array}\right\}$


## ICE BREAKER Warm Up 5 MINUTES

## SNACK CONTEST

 35 MINUTES
## Reflection 5 minutes

## ACCESS PRIOR KNOWLEDGE:

Watch: http://www.youtube.com/watch?v=hOZ cMF9oKA
If you don't have access to a computer, you can also just act out a fake cooking competition. (Call a couple participants to the front and pretend they are going to compete in a cooking contest!)
Ask the group if they have seen any cooking contests on TV or have participated in a cooking contest. Tell the group that we will be participating in a real cooking contest today!

## NEW INFORMATION \& APPLICATION:

Remind the group that we have been learning new skills, tricks, and rules about cooking, today we will get to put them into action! Break the participants into teams of 4-5. Have them create team names (relating their name to cooking, or their favorite dish). Once they have their team names unleash the special ingredients (see materials list).

Once you review the ingredients, unleash the special "tasks" they must complete

1) Make a creative snack that can move
2) Work as a team and listen to all of their teammates' ideas.
3) Snack must be able to stand and move on its' own with only a little push from a group member Ask for two volunteer judges who will sit out of the contest and instead observe the groups. The judges will have 4 areas to judge: use of special ingredients, teamwork, creativity, snacks ability to move, tastiness.
At the end, have the youth present their creative snacks.
Make sure they present their snacks by talking about how they worked together to come up with the idea, the skills they used to create the snack, and share the ingredients they used. While they are making their recipe, they can write it down in their recipe book. It will make it more fun if you as the instructor get really into the contest and pretend that you are a game show host/cooking show host. Eat and clean-up

## Generalization:

How did it feel to be under pressure? If you could do it over again, what would you do differently?
What would you do the same?

Suggestions for making today's activities more challenging:
Youth write recipes for their snacks.
Suggestions for making today's activities less challenging:
Making some models/giving some examples for snacks they could try to make.

## ICE BREAKER Warm Up 5 MINUTES

## Quesadillas 15 MINUTES

## Fraction QUESADILLAS 20 MINUTES

## REFLECTION 5 MINUTES

## ACCESS PRIOR KNOWLEDGE:

Review using a knife. Pair the participants up and give each group one fresh vegetable to cut. Mix all of the vegetables together in one big bowl.

- Knives 1 per 2 participants
- Peppers
- Tomatoes
- Onions (optional)
- Cutting board/space


## NEW INFORMATION:

Define fraction on the white board or large paper (a small or tiny part, amount, or proportion of something). Ask the participants to interoperate the definition. (How does it apply to cooking?)

- Demonstrate the fraction $1 / 4$ by using a $1 / 4$ scoop and a whole cup scoop of vegetable and dumping them on a plate to show the participants how $1 / 4$ is smaller than a whole cup.
- Make various fractions with the vegetables. You can also show the participants using the tortillas and cutting them into pieces.
- Some examples would be to cover $2 / 3$ of the tortilla with peppers and leave the others empty.
- Another example is covering $4 / 6$ with cheese and $2 / 6$ with vegetables.
- Let each pair of participants try to make a fraction by giving them another vegetable and asking them to cut it into $1 \frac{1}{4}$. When they have that done, as the other partner to cut it into 8ths and separate $2 / 8$ out of the group.


## Application:

Give each pair of participants two tortillas ask them to sprinkle some cheese on the half of the tortillas, or one tortilla (on a plate). Have one partner from each group get $1 / 4$ cup of veggies to bring back to their partner. The other partner can sprinkle the vegetables on the tortilla.
If the participants talk about not liking the vegetables, remind them that it is important to try new things. If they don't like it, they don't have to finish it.

- Challenge participants to make a fraction with their vegetables and cheese.
- Check their fraction and then cook their food using the microwave or griddle.
- When it is cooked and cut, you can use the cut pieces to represent a fraction as well.
- Clean-up.

Generalization:
What was your favorite part of today?

Suggestions for making today's activities more challenging:
Represent adding fractions with like denominators. (Ex- $1 / 4+2 / 4=3 / 4$ ). Represent equivalent fractions (ex- $2 / 4$ is the same as $1 / 2$ )
Suggestions for making today's activities less challenging:
Assist the participants to help them make their fractions. Use manipulatives other than vegetables


| SESSION 7 |
| :---: |
| ICE BREAKER |
| Warm Up |
| 5 minutes |

Houses around THE WORLD 10 MINUTES

CREATING HOUSES 25 minutes

Reflection 5 Minutes

Participants will practice adding fractions using their bodies.

- Ask the participants to split into a group of $4,5,6,7$ etc.
- Demonstrate $1 / 4$ of the class, then $2 / 3$, ask what you would get if you add $1 / 4+1 / 4$ etc.
- Generate thinking about fractions.

New information:
Show participants the pictures of the sample houses found in the instructor's supplemental materials. Brainstorm a group list of what they notice in the pictures. How do they look similar/different? In what part of the world do you think they are located?
Show the participants the fruit (new or left-over from previous session). Explain to the participants we are going to pick a location and try to build a house that looks like it would fit into that location using the fruit and gram crackers.
Optional: Build a sample graham cracker house ahead of time to show the participants. Application:
Each participant will get a plate and a plastic knife. Ask each participant to build a house that looks similar to the picture they chose. They can use the peanut butter as a "glue" to build the houses. When their house is built give them some fruit to make windows or door decorations.
When all of the pairs are done building - clean up, share their houses, and eat them up while reflecting.

Generalization:
Today we talked about living in different houses/locations. If you could live anywhere, where would you live? Why?

Suggestions for making today's activities more challenging:
Work on adding fractions with bigger numerators/denominators
Suggestions for making today's activities less challenging:
When working in partners, group together with 3-4 instead of 2. During independent cooking work, have the instructor or program assistant working with a certain group of participants.

## ICE Breaker Warm Up 5 MINUTES

ADDING FRACTIONS 10 MINUTES

FRACTION PIZZAS 25 MINUTES

## Reflection 5 MINUTES

## ACCESS PRIOR KNOWLEDGE:

Participants will begin by reviewing their cookbooks and their lessons on fractions from previous sessions. Ask the participants:

- What is a fraction?
- What have we learned about fractions so far?
- How do we use fractions while cooking?


## NEW INFORMATION:

The instructor will introduce adding fractions with like denominators
Write $1 / 4+1 / 4$ on the white board ask the participants if they can add those two fractions. The answer should be $2 / 4$ or $1 / 2$. Explain definitions of numerator (number on top) and denominator (number on the bottom). Write $2 / 6+1 / 6$ on the board ask the youth for the answer you will get $3 / 6$ Show about 4-5 more examples and really check for understanding from the participants. All of the problems should have the same denominator and never exceed a fraction broken into 10ths.

## APPLICATION:

Give each participant a tortilla.
Have the participants get into groups of four. Ask the participants to create the pizza with ingredients they like. For their own pizza. Have each participant switch $1 / 4$ of their pizza with the other group members in their group. I.E. have the participants give each group member $1 / 4$ of the pizza they made.
Cook the pizzas in the microwave or on the griddle, when the pizza's come out, youth will eat the pizza they made, even though it doesn't have exactly what they like, it will give them a chance to try something new!
Clean up, while you are cleaning up, reflect on the new pizza toppings the youth tasted. Ask if their friend had the same kind of pizza as they liked, seeing if they liked different pizzas. If so, what were the differences did you like the pizza still?

## Generalization:

What are two things you like about trying new things?

Suggestions for making today's activities more challenging:
Represent adding fractions with like denominators. (Ex- $1 / 4+2 / 4=3 / 4$ ). Represent equivalent fractions (ex-2/4 is the same as $1 / 2$ )
Suggestions for making today's activities less challenging:
Assist the participants to help them make their fractions. Use manipulatives other than vegetables

## ICE BREAKER

 5 MINUTES
## Addition <br> 15 MINUTES

HOMEMADE PLAY DOUGH 20 MINUTES

## REFLECTION 5 MINUTES

## ACCESS PRIOR KNOWLEDGE:

Play Top It using addition (see ice breaker section in curriculum)

## NEW INFORMATION:

Today we will be talking more about adding numbers. Have the youth open their cook books. Create an addition problem on the board. Use only numbers $1-10$ an example is $9+4=\ldots$. Ask one of the students to solve the problem.

Have youth create 5 problems in their cookbooks. They should leave the answer blank. Have youth select a partner. Ask the youth to switch cookbooks. The participants can then solve the problems in their partner's book. When the youth have completed the problems, have them pass it back to their partner and their partner can check the problem to see if it is correct. Ask the youth to talk about the problems, share answers with each other, and whole group.

When the everyone finishes sharing and correcting answers, transition into the next activity by saying, " Today we are going to have another chance to create and share math problems, except we will not be writing them, it will be much more fun!"

## Application:

Give each participant a piece of wax paper or a cup to mix the play dough on. Pass out all of the ingredients to make homemade play dough. Walk around with one material at a time and help the participants take a scoop. To save time, it would be safe to show the youth how to scoop for themselves carefully. Mix all of the ingredients together and you have created homemade! YAY!
Give the participants some time to play with the dough. Challenge their brains to make math addition problems. Clean up as a group and put theirs into a plastic bag to take home. Make sure to label their bags with their name so there is no confusion.

Note to instructor for next session: Noodles need to be prepared ahead of time
Generalization:
If you invented a toy - what would you invent? Why?

Suggestions for making today's activities more challenging:
Add two digit numbers
Suggestions for making today's activities less challenging:
Use counters/ other manipulatives to add the numbers together. Assist youth by writing some problems on the board for the youth to mold into math problems

| SESSION 10 | Goal: Participants WILl Practice adding two digit numbers | Materials Needed |
| :---: | :---: | :---: |
| ICE BREAKER Warm Up 5 MINUTES | ACCESS PRIOR KNOWLEDGE: <br> Play Top It using addition of two digit numbers (see ice breakers for instructions) | - Playing cards <br> - Tally sheet |
| Noddle Salad <br> 35 MINUTES | NEW INFORMATION \& APPLICATION: <br> Note: The instructor should make noodles the night before. <br> Split the youth into pairs. You will have a couple different ingredients that will need to be cut and added into the pasta salad. Split the ingredients equally to be cut. The cheese will be chopped, tomatoes cut in half, peppers chopped, and pepperoni cut in half. Demonstrate to the participants how to cut each ingredient. Remind them about their fractions lessons while cutting. Place the noodles in a large bowl. As they cut, have each pair keep track of how many pieces they have of each separate ingredient. <br> As youth pairs add their ingredients to the bowl, have one participant add to the bowl, while the other writes their numbers for each ingredient on the board. When all groups have added their ingredients to the bowl and numbers to the board, ask for four volunteers. Two volunteers will pour the Italian sauce into the bowl with the ingredients and mix it; while the other two volunteers add up each ingredient totals. <br> Clean up your materials, and eat the yummy pasta salad while reflecting! | - Whiteboard <br> - Whiteboard marker <br> - See recipe for ingredients <br> - Cookbooks |
| Reflection 5 MINUTES | Generalization: <br> We put a lot of ingredients in our pasta salad. Why do you think each ingredient matters? How are ingredients in a recipe similar to teamwork? |  |
| Suggestions for making today's activities more challenging: Add regrouping to the two digit addition problems. |  |  |
| Suggestions for making today's activities less challenging: Stay on single digit addition. Pair the youth by grade levels. |  |  |

ICE BREAKER 5 MINUTES

FRUIT KABOBS 35 MINUTES

## ACCESS PRIOR KNOWLEDGE:

Play Skip (see ice breakers)

## New information \& Application:

Before making their kabobs, ask the participants to create some math problems in their cookbooks using the fruit kabobs. Example- If Susie has 3 berries and there are 12 pieces of fruit on her kabob sticks how many pieces would she have if she took the berries off? Show some examples, have youth write their own and they can "act it out" as they prepare to make their kabobs.

Before you begin, make sure you have four separate bowls of cut up fruit one bowl with 6 pieces, 7 pieces, 8 pieces, and 9 pieces. Label the bowls with how many pieces are in each bowl. When you begin your lesson, ask one participant to remove a couple pieces of fruit from one of your bowls. Then ask another participant to tell you how many pieces of fruit you have left in that bowl.
Write the problem on the white board. Then complete a different problem using a different bowl of fruit. Ask the participants to each grab __ number of each fruit (the number will vary depending on how much fruit and how many participants you have). Have them set their fruit on their own plate. Break the participants into groups of 4 give each group 2 bananas, 2 apples, 2 kiwis, and some berries. Have the participants cut up the fruit together and putting it on a paper plate for their group to use. They should cut them in to chopped pieces. Give each participant two kabob sticks.
Have each participant make two fruit kabobs using their groups' fruit. Make sure you are monitoring them as they cut the fruit for their kabobs. After they make their own fruit kabob, they can compare their kabob to a participant in the class around them.

Clean up and bring the group together before you eat your kabobs. Ask them to share some of their math problems they wrote in their books. Write some examples on the board to show everyone. Eat during reflection

## Generalization:

Why is it important for a leader to learn how to do math?

- Four small bowls of cut up fruit
- Whiteboard
- Whiteboard marker
- See recipe for ingredients
- Youth cookbooks
- 2 bananas, 2 cantalopes, 2 kiwis, and some berries (for each group of 4)
- Knives
- Plates for each participant
- 2 kabob sticks for each participant
- Cutting board or safe space to cut


## Reflection 5 MINUTES

Suggestions for making today's activities more challenging:
Work on some two digit problems with the subtraction. Pair up participants and have them add all of their fruit together
Suggestions for making today's activities less challenging:
Allow the participants to count with their fruit or fingers. Give some prompts for participants struggling to find an answer to the question.

SESSION 12
ICE BREAKER 5 MINUTES

PITA POCKETS 15 MINUTES

## Math Pita <br> Pockets 20 MINUTES

Suggestions for making today's activities more challenging:
Give participants double digit problems. Challenge the second graders to use multiplication skills to find total of all of their fruit
Cut the fruit into smaller pieces to use for bigger numbers.
Suggestions for making today's activities less challenging:
Help youth cut the fruit. Keep all numbers to single digits.

$$
\begin{gathered}
\text { SESSION } 13 \\
\text { ICE BREAKER } \\
\text { WARM UP } \\
\mathbf{1 0} \text { MINUTES } \\
\hline
\end{gathered}
$$

Goal: The youth will be able to define pattern

## Reflection 5 Minutes

## ACCESS PRIOR KNOWLEDGE:

Ask participants what a pattern is. See if they can give you an example of a pattern using colors or shapes. Example- blue, green, blue, green. Draw a few patterns together.

## NEW INFORMATION:

Before class set a cup/bucket full of different shaped/colored objects (like beads, blocks, or even cut out colored paper). Have participants to dump the shapes on their table and make a pattern using their shapes and colors. Walk around the room and give feedback on patterns, help create patterns, and get involved with the youth making patterns.
Have participants share their patterns with their table group and invite some to share with the whole class. After you share some and give the youth about 5 minutes to practice making patterns have the participants clean up to move to the next activity.

## Application:

Display all of the Chex mix ingredients to participants. Break participants into groups of two and give each group a plate to set some of the materials on. Pass out ingredients to the participants.
Ask the participants to take turns using some of the ingredients to create a pattern.

- Reflect on the pattern the partners made and ask if there is any other pattern that can be made with the same materials
- As the youth are making their patterns, walk around the room and comment on the patterns the youth are making. Allow them to share their pattern with the class and show similarities and differences in each groups patterns compared to the other groups patterns
- Have each group share one of their patterns
- Allow the youth to mix all of the ingredients together and eat the Chex mix
- Clean up any extra materials, and reflect while eating the Chex mix.


## Generalization:

How did you work as a team to decide what your pattern would be?

## Suggestions for making today's activities more challenging:

Have the participants sort each object before creating a pattern. Create difficult sorts for each participant to complete with the Chex mix materials
Suggestions for making today's activities less challenging:
Help the groups by prompting/starting a pattern for them. Have some starter patterns on the board at the beginning of class to help the participants when they start their bracelets

| SESSION 14 | GOAL: PARTICIPANTS WILL MAKE A FRUIT POPSICLE | Materials Needed |
| :---: | :---: | :---: |
| ICE BREAKER Warm Up 5 MINUTES | ACCESS PRIOR KNOWLEDGE: <br> Ask youth to show you their patterns from the last session, talk about the patterns they made with their supplies. Redefine what a pattern is. |  |
| PREPARING THE <br> FRUIT <br> 15 MINUTES | NEW INFORMATION: <br> Break participants into pairs. Give each pair an a kiwi, a peach, and some raspberries. Have the youth mince the fruit on their plate using their knives. Give each youth a fork and have them moosh up the fruit into a small moosh clump. | - Whiteboard <br> - Whiteboard marker <br> - See recipe <br> - Cookbooks |
| FRUIT POPSCICLES <br> 20 MINUTES | Application: <br> Take out a popsicle mold. If you do not have plastic popsicle molds, use a dixie cup and a wooden popsicle stick. Demonstrate how to add the fruit and yogurt to your popsicle maker - making a pattern using the type, color, and size of the fruit and yogurt. <br> Youth make their own patterned popsicles. When they are done, finish up the recipe in their cookbooks and encourage them to add or take away anything they didn't use. Place them in the freezer to eat at the next session. <br> Clean up the materials and the classroom together. <br> Reflect on the lesson for the day. | - Whiteboard <br> - Whiteboard marker <br> - 1 kiwi, peach, and a couple raspberries for each pair of youth. <br> - Popsicle sticks and Dixie cups or plastic popsicle molds <br> - Strawberry or original yogurt |
| REFLECTION 5 MINUTES | GENERALIZATION: <br> What did you add or take away from your recipe? <br> We talked today about being able to adapt/change your recipe to make it better. Is there ever a time when you changed something else to make it better or more fun? How did it turn out? |  |
| Suggestions for making today's activities more challenging: <br> Give participants challenging pattern to replicate while making their popsicles. Mince the fruit to make smaller pieces |  |  |
| Suggestions for making today's activities less challenging: <br> Prep the fruit for the session. Help them scoop the fruit into their popsicle maker. |  |  |


| SESSION 15 | GOaL: Participants WILL be able TO Make an eatable necklace | Materials Needed |
| :---: | :---: | :---: |
| ICE BREAKER 5 MINUTES | ACCESS PRIOR KNOWLEDGE: <br> Eat the fruit popsicles from the last session. While they are eating, discuss the different patterns they m popsicle yesterday. Remind them that a pattern is a repeated design, anyone can make or find a pattern sorted in many different ways like shape, size, color, etc. | Paper clocks |
| NOODLE ART 35 MINUTES | New information \& Application: <br> Youth will break into groups of 4-5. <br> Making a necklace (demonstrate patterns to the group and then they make their own necklaces): <br> - Have youth draw a pattern in their cookbook making and plan for their give youth time to make their own patterned necklaces. <br> - When the participants have completed their necklaces, have them share with their small groups and discuss how and why they made their pattern. | - Popcorn <br> - Craisins/raisins <br> - Dried apples <br> - Dried pineapple <br> - Instructor choice of stringable foods. <br> - String <br> - Various types of noodles to be beaded <br> - Whiteboard <br> - Whiteboard marker <br> - Cookbooks <br> - Needles (use cross-stich needles, they are not as sharp) |
| MAKE YOUR OWN 5 MINUTES | GENERALIZATION: <br> If you could change one thing that we did today to make it more awesome, what would you change? | - Drying space for the necklaces |
| Give a participant a special pattern to make that will challenge their thinking. Have a participant who is required to ask at least 1 or 2 people for something to challenge their social skills |  |  |
| Help the participant come up with a pattern with the materials they have. Prompt thinking during the independent work time (aka: ask the participants questions that will lead them to thinking of a pattern to make in their parfait) |  |  |

ICE BREAKER Warm Up 5 MINUTES

## PATTERN PARFAIT

 10 MINUTESMAKE YOUR OWN PARFAIT 25 MINUTES

## Reflection

 5 MINUTES
## ACCESS PRIOR KNOWLEDGE:

Play Clock Time Buddies (See ice breakers)
There is a sample blank clock in the supplemental materials

## NEW INFORMATION:

Make a yogurt parfait before the youth come to class for the day. Make sure you use different colored layers to make the pattern. As youth enter the room, ask them to look at your parfait and see if they can find a pattern. Have them discuss the pattern they find with a friend and report back to the large group what they see.
In small groups have youth discuss how to find patterns in everyday life (on the street with signs, at home cooking, in classroom, with your friends when you are making or eating something). Ask participants to find a pattern in the room - have them share with their table group, and then call on a couple youth to share their examples with the group.

## Application:

Each recipe will be different. Write a sample recipe (using your pattern) with the group. As you go over the recipe, think out loud saying things like, "I wanted to make my own pattern how did I do that?" Explain to the group they will get to design their own pattern and recipe. Show an example of what they could change like put the fruit in a different area, or move the yogurt around. Because each participant will only get a certain amount of fruit, demonstrate how to make the most out of what you have for example "I bet I can cut these strawberries and add more to the top and bottom to make a better pattern." Encourage the participants to "think outside the box" or use their communication and team work skills to get more of something they don't have.
Youth create their own recipe (writing down the recipe and the pattern before making the parfait. Open their cookbooks and write their own recipe, they should also draw a picture of what they want their pattern to look like. When their sketch and directions are done, they can get their supplies. Allow the participants to choose their fruit. You can pick $\qquad$ number of each berry. (Numbers will vary based on how much fruit you purchased).

Clean Up \& Eat your parfaits while you and the participants reflect on today's activities.

## Generalization:

How did you use your communication and teamwork skills to get more materials when needed? What do you do to feel confident when you're talking to other people?

- Whiteboard
- Whiteboard marker
- Cookbooks


## - Whiteboard

- Whiteboard marker
- See recipe (you choose types of fruit)
- Cookbooks
- Examples of patterns in everyday life


## - Whiteboard

- Whiteboard marker
- See recipe
- Cookbooks

Give youth a special pattern to make that will challenge their thinking.

## ICe Breaker 5 Minutes

PRACTICE STORY PROBLEMS 15 MINUTES

Fruit SALAD 20 MINUTES

## Reflection 5 MINUTES

## ACCESS PRIOR KNOWLEDGE:

Read the sample story problem to the participants and answer the problem using the white board to guide you through the problem. (See supplemental materials)
While you are working through the problem, observe how each participant does working out the problem. Each step can be done in groups or partners for a bigger challenge.

## NEW INFORMATION:

Have youth create definitions for "teamwork" (working together to accomplish a common goal) and "story problems" (stories that have math problems to solve in them )

## Application:

Transition into the next activity by explaining that we will be making a new story problem today. (See supplemental materials)

Split participants into groups of 4-5. Give each group 2 cans of mandarin oranges, 2 bananas, some cherries, some grapes (attached to the vine), and some pineapple slices. Each group will need a safe place to cut their fruit. Set out the whip cream on a table in the room ( 1 container for every 3 groups). Put the empty large bowl in the front of the room by you.
Review a couple of rules: your community standards and knife safety.
Read the story to the youth. Youth will follow along the story problem and follow directions to cut, mix, and work together. When the story is complete, the participants will have made a fruit salad to enjoy!

Clean up the room, and enjoy your treat while reflecting on the teamwork challenge!

## Generalization:

Creating stories can sometimes be fun! If you were to create a story, what would write about? Who could you share your story with?

- Math sample problems (see supplemental material)
- Whiteboard
- Whiteboard marker
- Whiteboard
- Whiteboard marker
- See recipe
- Cookbooks
- Mandarin oranges, 2 bananas, some cherries, some grapes (attached to the vine), and some pineapple slices
- Each group will need all of those materials, so the fruit may vary.
- Plates
- Spoons/forks
- A large bowl
- Knives
- Cutting board
- Math sample stories (see supplemental materials)
- Cool whip (1 container per 4 youth)
- Math story

Suggestions for making today's activities more challenging:
Create a similar, but more challenging story. Have the participants write their own story
Suggestions for making today's activities less challenging:
Everyone can complete the story together and make one giant bowl of fruit salad instead of making 4-5 different groups

## ICE BREAKER 5 minutes

## COOKING CLASSIC 35 MINUTES

## Reflection 5 Minutes

## ACCESS PRIOR KNOWLEDGE:

Reflect on the posters of the cooking rules you made as a class the first day you were in class. Ask youth to remind you of what new skills they have learned since that first session.

## NEW INFORMATION \& APPLICATION:

Welcome all youth to the "Cooking Classic." Remind them of their previous competition using the snack attack rules
Explain the rules:

- Each group member must have an active part in creating your recipe
- Your recipe/cooking must include some type of math problem (this can be something as simple as saying we added 3 blueberries plus 6 strawberries and we have 9 berries in our meal)
- You must use all of the secret ingredients in your recipe
- You must use 5 minutes of "planning" time before you begin your recipe
- A microwave or griddle can be used with adult supervision and permission.
- Have fun!

Ask for two volunteer judges who will sit out of the contest and instead observe the groups. The judges will have 4 areas to judge: (see supplemental materials for judging sheet)

- Use of special ingredients
- Team work
- Creativity
- Snacks ability to move
- Tastiness

Let the youth complete the special contest. At the end, have the youth present their creative snacks. Make sure they present their snacks by talking about how they worked together to come up with the idea, the skills they used to create the snack, and share the ingredients they used. While they are making their recipe, they can write it down in their recipe book! It will make it more fun if you as the instructor get really into the contest and pretend that you are a game show host/cooking show host.

## Generalization:

Today we all took on different roles, some read directions, some helped decide who would do what, we all were a leader in our own way. What do you think is your strongest leadership skill?

Suggestions for making today's activities more challenging:
Add tricky special ingredients
Suggestions for making today's activities less challenging:
Pair participants up by work level. Assist participants in the initial creation of their recipe

| SUPPLEMENTARY Session 1 | GOAL: PARTICIPANTS WILL PRACTICE NAMING COINS AND DOLLARS | Materials Needed |
| :---: | :---: | :---: |
| ICE BREAKER 5 MINUTES | Access prior knowledge: <br> Place a pile of coins on the table, you need at least one, but more will be better so everyone can see. Ask the youth to name all the different coins and talk about the coins value. | - Change/sample coins fake or real will work |
| PRACTICING COINS 15 MINUTES | New information: <br> Draw a picture of each coin and put the value next to the coin. Have each participant grab a couple coins and see if they can add up how much money it makes all together and write the problem in their cookbook. Share some of the sample problems the youth made on the white board. | - Whiteboard <br> - Whiteboard marker <br> - Cookbooks |
| GUMMY BEAR <br> POPSCICLES <br> 20 MINUTES | Application: <br> Note: Setting the store up before class starts will be more efficient for the instructors. Break participants into pairs. Bring out the gummy bears, the sprite, the popsicle makers (or Dixie cup/popsicle stick). Use the price tag labels (found in the instructor supplemental material) to label each ingredient. The sprite is 25 cents per cup, the cups are 20 cents, popsicle sticks are 10 cents, and the gummy bears are 5 cents each <br> Ask for 2-4 volunteers to be the "store clerks". These two participants need to be pretty independent with their addition skills. Each participant will be able to go through the store and "buy their supplies." Use the bag of coins to buy materials from the store. When your store is set up, let the participants come up 2-3 at a time and buy their materials. If there are more than 20-30 youth, it may be a better idea to break the participants into groups of 4-5 and pick 1 person in each group to be the store clerk. <br> Once the participants have purchased their materials they can make a Popsicle using all of the materials they purchased. When the popsicles are done, put them in the freezer to enjoy next session! <br> Clean up. | - Gummy bears <br> - Sprite <br> - Dixie cups and popsicle sticks or plastic popsicle makers <br> - Price tags |
| REFLECTION 5 MINUTES | Generalization: <br> What kind of store would you like to work in? Would you rather work there or be the owner? Why? |  |
| Suggestions for making today's activities more challenging: <br> Give a higher amount of money for the participants to count each time. Charge money to the participants to buy/sell materials. |  |  |
| Suggestions for making today's activities less challenging: <br> Practice skip counting. Label each coin's value before you have the participant count the money. |  |  |

SUPPLEMIENTARY
SESSION 2
ICE Breaker 5 minutes

MONEY SONG 10 MINUTES

BREAKFAST SUSHI 25 MINUTES

## Reflection 5 minutes

OAL: ParTICIPANTS WILL PRACTICE NAMING COINS AND DOLLARS

## ACCESS PRIOR KNOWLEDGE:

Practice counting coins together. Eat the popsicles from yesterday and remind each other of how much they paid for the popsicles.

## NEW INFORMATION:

Review money totals with the participants. Make it fun buy singing the money song. (Found in instructor supplement sections). Introduce new information by asking the youth if they know what sushi (raw fish). Explain to them where sushi originated and give them some background knowledge about sushi (Japanese food, usually has cooked rice and can often include sea weed, most sushi has Shari - raw meat, usually seafood).
Reactions from the youth will probably be a little negative. Play around/joke just a little bit and talk about how you will be cutting up fish and eating it raw. (Have some fun). After just a couple minutes of joking, explain to them that you will actually be making breakfast sushi!

## APPLICATION:

Note: Setting the store up before class starts will be more efficient for the instructors.
Bring out the materials for the "store" Bananas will be 25 cents, celery 25 cents, a scoop of peanut butter 20 cents, and a scoop of raisins or rice crispies 20 cents, and a plate 10 cents. Start each participant out by giving them a plate. Remind them that when they "buy" something they need to write the total in their cookbooks.
Making a breakfast sushi (demonstrate first and then have youth do on their own):

- Peel a banana
- Use a knife to put peanut butter all around the banana, and then sprinkle the rice crispies all around.
- Cut the banana into sushi "rolls"

Allow the participants to go through the store line and buy their ingredients, make their sushi, eat and clean up.

## Generalization:

Sushi is a food that many of us have never tried, what are some other foods you have never tried, but have always wanted to? What are some foods you have tried and liked, even though you didn't think you would?

## MATERIALS NEEDED

## - Coins

- Whiteboard
- Whiteboard marker
- Money song (see supplemental materials)
- See recipe for ingredients
- Cookbooks
- Money sheets to hand out
- 1 banana per youth
- Money price tags
- Plates
- Peanut butter
- Whipped cream (if participants are allergic to peanut butter)
- Rice crispies (1 box per 20
youth)
- Raisins

Suggestions for making today's activities more challenging:
Give a higher amount of money to count each time. Hand out extra coins for showing exemplarily team work. Charge money to the participants to buy/sell materials
Suggestions for making today's activities less challenging:
Practice counting by 2 's, 5 's, 10 's, and 20's. Label each coin's value before you have the participant count the money

| SUPPLEMENTARY SESSION 3 | GOAL: PARTICIPANTS WILL PRACTICE NAMING COINS AND DOLLARS | Materials Needed |
| :---: | :---: | :---: |
| ICE BREAKER 5 MINUTES | ACCESS PRIOR KNOWLEDGE: <br> Play Buzz (money version) (see ice breakes) |  |
| SETTING UP THE STORE <br> 10 MINUTES | NEW INFORMATION: <br> **Setting the store up before class starts will be more efficient for the instructors. ${ }^{* *}$ Today we will set up a store to buy materials to create a zoo! <br> Set out the materials in the store. <br> - Tomatoes 20 cents <br> - Celery 20 cents <br> - Carrots 20 cents <br> - Toothpicks 1 cent <br> - Broccoli 20 cents <br> - Plates 10 cents <br> Explain to the youth that we will work together to make a zoo today. Each participant will make 1 animal to add to our zoo. | - Whiteboard <br> - Whiteboard marker <br> - Cookbooks <br> - Tomatoes (cherry) <br> - Celery <br> - Carrots <br> - Toothpicks <br> - Broccoli <br> - Plates (1 per youth) <br> - Veggie dip (2-3 containers) <br> - Fake coins <br> - Money tags |
| ANIMAL STATUES 25 MINUTES | APPLICATION: <br> Ask each participant to name some animals they could make. When the participants are ready, they can buy some vegetables from the store. Use their cookbooks to add up a total for their ingredients they put on their plate. When they are done, they can use the fake coins to purchase their materials. Start building! They can use the veggie dip for "glue" for their animals. The toothpicks can be used to hold animals together. When all of the animals are complete, have the participants bring their animals together and make a giant zoo. Name the zoo! Clean up all of the materials and enjoy eating your animal's snacks while you reflect. |  |
| REFLECTION 5 MINUTES | GENERALIZATION: <br> What is your favorite zoo animal and what do you like about them? |  |
| Give a higher amount of money for the participants to count each time. Hand out extra coins for showing exemplarily team work. Charge money to the participants to buy/sell materials |  |  |
| Suggestions for making tod Practice skip counting. | s activities less challenging: <br> Label each coin's value before you have the participant count the money |  |

SUPPLEMENTARY
SESSION 4
ICE Breaker
Warm Up
5 minutes

SMOOTHIES 35 MINUTES

## Reflection 5 Minutes

## MATERIALS NEEDED

## ACCESS PRIOR KNOWLEDGE:

Place a pile of coins on the table, you need at least one, but more will be better so everyone can see.
Coins

- Whiteboard


## NEW INFORMATION \& APPLICATION:

Before class, cut up some fruit to use for your example. Show youth how to use a blender - adding first ice, then fruit, then liquid. Put the cover on tight and then mix it up.

Note: Setting the store up before class starts will be more efficient for the instructors.
Set up the store, or choose a group leader to be the store clerk.

- Ingredients in the store:
- Banana (20 cents)
- Peach (20 cents)
- Berries (20 cents)
- Yogurt (20 cents for a big scoop)
- Plates (10 cents)
- Cups (10 cents)
- Orange juice ( 15 cents per cup)

Group the youth in groups of 4-5. The youth will make smoothies together in a group.
Allow the participants to buy the ingredients of their choice. (The instructor will decide how much money each participant gets based on how much fruit you have and how many participants you have). Each participant can use the plastic knives to cut up the fruit and get it ready to blend. To avoid behavior problems, allow the participants to play with the flash cards while they are waiting to get their smoothie blended. When all of the smoothies are blended, clean up and enjoy the smoothies!

## Generalization:

Each of us had different jobs today, why is it important to have responsibilities? Why is it important to be a leader?

- A blender
- Orange Juice
- Ice
- Bananas
- Peaches
- Berries
- Yogurt
- Cups (1 per participant)

Suggestions for making today's activities more challenging:
Give a higher amount of money for the participants to count each time. Hand out extra coins for showing exemplarily team work. Charge money to the participants to buy/sell materials.
Suggestions for making today's activities less challenging:
Practice skip counting. Help with the store sales. Label each coin's value before you have the participant count the money.

The following pages include all printed supplementary materials including: forms, worksheets, handouts, etc.

## Recipe Sample (SESSION 3)

Prep time: 25 minutes

## Ingredients:

- 3 oz. ground beef
- 2 oz. ground sausage
- 1 tbsp. onion, chopped
- 2 slices ( 2 oz .) cheddar cheese
- 2 slices bacon
- 1 hamburger bun


## Utensils:

- Grill (you'll need help from your adult assistant)
- Mixing bowl
- Spatula


## Directions:

- Prepare grill.
- Combine first three ingredients in a bowl.
- Form one patty about 1 inch thick.
- Grill patty about 5 inches from coals, about 6 minutes per side, until cooked throughout.
- Top cooked patty with cheddar cheese about 30 seconds before removing from the grill.
- Put bacon on top of the burger.
- Place the bacon cheeseburger into a hamburger bun.


## Serves: 1

Serving size: 1 hamburger

## PICTURES OF HOMES






## Money Story Problem Samples (Session 17)

If Jaheim buys a shirt for $\$ 2.25$ and a pair of pants for $\$ 1.25$ how much did Jaheim spend?

If Shaniah goes to the grocery store and buys a pepper for $25 \varnothing$ and an orange for $\$ 1.23$ how much did Shaniah spend?

## SAMPLE JUDGING CONTEST SHEET

## Cooking Contest judging sheet

___ 15 Use of special ingredients
___ 15 Teamwork 15 Creativity
___ 15 Snacks ability to move
/5 Tastiness
Notes:

## Cooking Contest judging sheet

$\ldots \quad 15$ Use of special ingredients
_ 15 Teamwork
I 15 Creativity
_ $/ 5$ Snacks ability to move
$-1$
15 Tastiness
Notes:

## Cooking Contest judging sheet

_ 15 Use of special ingredients
_ 5 Teamwork
_ $/ 5$ Creativity
_ 5 Snacks ability to move
_ $/ 5$ Tastiness
Notes:

CLOCK BUDDY EXAMPLE


## Fruit Salad Story Problem

Once upon a time, there were some super cool youth who went to the magical land of make believe. When they entered this land it was full of fun and wild colors. There were little tiny people smaller than ants. They had to be VERY careful not to step on any of the people.

When the participants looked up, they saw a dark and evil looking sky. They wondered how a land that looked so colorful and fun could have such a nasty sky. They walked and walked the land until the came to a gigantic building. This building was so big it looked like it was 3 million times bigger then the Empire State building. They were very nervous to go inside, but they continued on knowing that something was wrong.

Once they climbed the gigantic hill to get to the building, the were in front of the huge door. They pushed and pushed, but couldn't open the door. Finally they saw a doorbell and fearlessly pressed the bell. Right when they pushed the button they heard "boom" "boom" boom", "who dare knocks on my door". They were very scared but stood strong and answered the giant voice. "My name is Jonathan and my name is Cindy." "We are here to get help. We are trying to help the land of make believe a happier place and we need your help." The man opened the door and looked down at the youth. When the man looked down the youth got so scared. They had never seen a GIANT before! He was the tallest, biggest man they had ever seen.

He said, "what is the problem in the land of make believe?"
Jonathan said, "The land of make believe is supposed to be a happy place, but the sky is so dark and the people are so small and unhappy."

The giant laughed, "Ha ha ha, that is just how I like it! I have taken all their powers! I was once a small tiny human and all of the people laughed at me. They never knew that one day I would see revenge. I would take all of the power from them and I would become the tallest, biggest, greatest man alive. They would answer to me, the powerful giant!" "So go away tiny humans, I will not help you!"

Cindy, the brave young girl that she was insisted she would not go away until the giant gave the people back their powers. She begged, she tried to argue, and finally she asked, "what can we do to free the people of make believe?"

The giant answered, "The only way to free the people is to beat me in the ultimate fruit salad challenge. I am the ultimate cook and you will never beat me in my challenge!"

Cindy and Jonathan wanted to challenge the giant, but they knew they could not do it alone; they would need help from real live human cooks.

Can you help Jonathan and Cindy?
Here is the challenge story problem.

- The team must complete 25 jumping jacks then open the mandarin oranges add them to the giant bowl.
- Pick all of the grapes off the vine, pick two players to "Make a basket" into the separate bowl set up in the classroom, two participants will have to make a basket. If they miss, they need to get the grape and shoot again and again until they make it. Once their team makes the baskets, the other teammates can add the other grapes to the bowl. (Do not add the basketball grapes)
- One or two leaders must chop 20-3 pieces with their bananas and add them to the bowl.
- All teams must at 43-37 cherries to the bowl
- Finally, each team must add at least 1 scoop of whip cream, without spilling any!

The first team done beats the giant and wins the challenge!

## Money Song 1

Penny, penny, Easily spent. Copper brown and worth one cent.
Nickel, nickel, Thick and fat. You're worth five cents, I know that.
Dime, dime, Little and thin. I remember, you're worth ten.
Quarter, quarter, big and bold. You're worth twenty-five I am told.

## Money Rhymes

Twenty five cents, Money that rhymes, Take one nickel Add two dimes.
Three fat nickels, One thin dime. Makes twenty-five cents Every time.
Five fat nickels, No thin dimes. Makes twenty-five cents Any time.

## A Penny Is One Cent

A penny is one cent. (stamp your foot) A nickel is five. (slap your thigh) A dime is ten cents. (clap your hands) A quarter twenty-five. (snap fingers over your head) How many cents have I on this try?
For example: Snap, stamp, stamp ... would be 27 cents.
1 cent is a penny, 10 cents is a dime, 5 cents is a nickel, Now you know that I'm learning about money And which coin is which Don't forget the quarter, It's worth 25 cents!

The Coins Go Rolling (to the tune of "The Ants Go Marching")
The smallest coin of all is the penny. The penny. The penny is worth one cent. One cent.
The picture on the penny is the maple leaf, And the penny goes rolling down, to the ground, to get to the bank Boom, boom, boom.

The next biggest coin is the nickel. The nickel. The nickel is worth five cents. Five cents. The picture on the nickel is the beaver, And the nickel goes rolling down, to the ground, to get to the bank Boom, boom, boom.

The next biggest coin is the dime. The dime. The dime is worth ten cents. Ten cents.
The picture on the dime is the schooner, And the dime goes rolling down, to the ground, to get to the bank Boom, boom, boom.

The next biggest coin is the quarter. The quarter. The quarter is worth twenty-five cents. Twenty-five cents. The picture on the quarter is the caribou, And the quarter goes rolling down, to the ground, to get to the bank Boom, boom, boom.

The next biggest coin is the loonie. The loonie. The loonie is worth one dollar. One dollar.
The picture on the loonie is the loon, And the loonie goes rolling down, to the ground, to get to the bank Boom, boom, boom.

The biggest coin of all is the toonie. The toonie. The toonie is worth two dollars. Two dollars.
The picture on the toonie is the polar bear, And the toonie goes rolling down, to the ground, to get to the bank Boom, boom, boom.

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Sale!!!!
Price:

# My <br> COOKING \& <br> MaTH <br> B00K 

## SEssion 1: No RECIPE

Notes:

## SESSION 2: NO RECIPE

| Recipe Component |  |  |
| :--- | :--- | :--- |
| 1.Ingredients- what food/liquid items we <br> add into the dish we are making |  |  |
| 2. <br> Supplies/utensils- what supplies do you <br> need to make the meal? A bowl, spoon, <br> knife, etc. |  |  |
| 3. |  |  |
| Directions- what steps do we need to <br> follow to complete our recipe? |  |  |
| 4. |  |  |
| Measurements | Serving size/yield |  |

Notes:

## Session 3: Scrambled Eggs with Peppers

Ingredients:

- 2 large or 3 medium red bell peppers, or a combination of red and green bell peppers, diced (about 1 to 1 $1 / 4$ pounds)
- Salt to taste
- 6 eggs
- 1/3 cup of milk

Directions:

- Wash and chop the peppers
- Crack the eggs into a cup and then into a big bowl.
- Beat the eggs
- Add the milk to the eggs
- Heat skillet
- Mix the peppers with the eggs and add the salt
- Cook eggs until the liquid becomes a brownish yellow solid substance
- Dish up and enjoy!

Serves:

- 5-6 people


## Vocabulary

Minced:

Chopped:

Diced:

Beat:

Stir:

Notes:

SESSION 4: Snack attack Challenge

Write your own recipe:
Ingredients:
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Directions:
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Serves:
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Notes:

## SESSION 5: QUESADILLAS

Ingredients:

- Large flour tortillas
- Grated cheese - either mild or sharp cheddar, or Monterey Jack

Optional:

- Sliced mushrooms
- Green onions
- Black olives, sliced
- Fresh tomatoes, diced
- Chicken pieces
- Avocado
- Lettuce
- Peppers
- Apple cider vinegar
- Salt

Directions:

- Chop the peppers and extra ingredients you would like to add.
- Put 1 flour tortilla on a plate
- Add $1 / 2$ cup of cheese and sprinkle vegetables around the cheese.
- Add a little bit more cheese
- Place the second tortilla over the cheese and vegetables
- Cook on the griddle until the cheese has melted

Serves: 8-10

Notes:

## Session 6: Fruit Pizzas

Ingredients:

- 1 roll ( 16.5 oz ) Pillsbury ${ }^{\circledR}$ Create ' n Bake ${ }^{\circledR}$ refrigerated sugar cookies
- 1 package ( 8 oz ) cream cheese, softened
- $1 / 3$ cup sugar
- $1 / 2$ teaspoon vanilla
- 1 cup fresh or canned peach slices, drained, cut into thinner slices
- 1 cup halved or quartered fresh strawberries
- 1 cup fresh or frozen blueberries
- $1 / 2$ cup apple jelly
- (All fruit is optional)


## Directions

- In small bowl, beat cream cheese, sugar and vanilla with electric mixer on medium speed until fluffy. Spread mixture over cooled crust. Arrange fruit over cream cheese.
- Stir jelly until smooth; spoon or brush over fruit. Refrigerate until chilled. Cut into wedges or squares. Cover and refrigerate any remaining pizza.

Serves: 10-15 people

Notes:

## Session 7: Building a House

Write your own recipe:
Ingredients:
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Directions:

Serves:
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Notes:

## Session 8: Mini Tortilla Pizzas

Ingredients:

- Tortilla
- Pizza toppings of your choice
- Cheese
- Pizza sauce

You create the directions:

Notes:

## SESSION 9: Pasta SALAd

Ingredients

- Cooked noodles
- Italian dressing


## Optional:

- Cheese blocks chopped
- Peppers
- Peperoni
- Cucumbers
- Tomatoes
- Broccoli

Directions

- Cook the noodles
- Chop the chosen vegetables and food items
- Add of the ingredients together
- Add Italian dressing (just enough to cover to not drown your noodles in dressing)

Serves: 15-20

Notes:

## Session 10: Playdough

Ingredients:

- $1 / 4$ cup salt
- 1 cup flour
- 1/4 cup water

Directions:

- Mix the flour and salt in a bowl then add water
- Knead and squeeze the dough to make a clay consistency.
- You may need to add more water.
- Ideas:
- Divide into sections, then knead in food coloring (liquid or paste).
- Use unsweetened Kool-Aid for color and scent. Add glitter for sparkly play dough.

Serves: Makes enough for 1-2 people to have

Notes:

Session 11: Fruit Kabobs

Write your own recipe:
Ingredients:
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Directions:
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Serves:
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Notes:

## Session 12: Peach and Banana Pockets

## Ingredients:

- 2 apples, pears, bananas, peaches or mangoes
- 2 medium whole wheat pita pockets
- 1/4 cup chunky peanut butter

Instructions:

- Wash and slice fruit.
- Cut pitas in half to make 4 pockets.
- Warm each pita half in the microwave for about 10 seconds to make them more flexible.
- Carefully open each pocket and spread about 1 tablespoon of peanut butter on the inside walls of each pita half. You may need to warm the peanut butter in the microwave for a few seconds, especially if it has been in the refrigerator.
- Fill each pocket with sliced fruit.
- Serve at room temperature.

Serves: 1 person per serving

Notes:

## Session 13: Chex Mix

Ingredients:

- 3 cups Corn Chex cereal
- 3 cups Rice Chex cereal
- 3 cups Wheat Chex cereal
- 1 cup mixed nuts
- 1 cup bite-size pretzels
- 1 cup bite-size bagel chips broken into 1 inch pieces
- 6 tablespoons butter
- 2 tablespoons Worcestershire sauce
- $1 \frac{1}{2}$ teaspoons seasoned salt

Directions:

- In large microwavable bowl, mix cereals, nuts, pretzels and bagel chips; set aside. In small microwavable bowl, microwave butter uncovered on High about 40 seconds or until melted. Stir in seasonings. Pour over cereal mixture; stir until evenly coated.
- Microwave uncovered on High 5 to 6 minutes, thoroughly stirring every 2 minutes. Spread on paper towels to cool. Store in airtight container.
- Recipe can be adapted to add more ingredients

Serves: $15-20$ people per serving

Notes:

## Session 14: Fruit Popsicles

Write your own recipe:
Ingredients:
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Directions:
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Serves:
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Notes:

## Session 15: Yogurt Parfait

Ingredients:

- $11 / 2$ cups low-fat or fat free Greek yogurt
- 2 cups fresh or frozen fruit (raspberries, strawberries, mandarin oranges, etc).

Directions:

- Add yogurt to your cup.
- Top with some fruit and repeat until all of the yogurt and raspberries are used up.
- Serve or refrigerate until ready to serve.

Servings: 4 parfaits- 1 person per serving

Notes:

## SESSION 16: EATABLE NECKLACES

Necklace pattern design:

Write your own recipe:
Ingredients:
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Directions:
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Serves:
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Notes:

Session 18: CREATE YOUR OWN RECIPE CHALLENGE

Write your own recipe:
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Directions:
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Serves:
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Notes:

Ingredients:

- $1 / 2$ can of Sprite
- 12 Gummy bears

Directions:

- Pour the sprite into the popsicle maker
- Add gummy bears
- Fill the popsicle maker to almost to the top
- Add popsicle stick
- Freeze overnight

Serves: 1 person per serving

Notes:

# Suppleminntal Session 2: Breakrast Sushi 

Ingredients:

- 1 Banana
- 1 cup Rice Krispies
- $1 / 4$ cup of Peanut Butter

Directions:

- Peel a banana and remove the skin.
- Using a butter knife, spread peanut butter all of the banana, covering the entire surface.
- Pour Rice Krispies in a small plate.
- Roll the peanut buttered banana in the Rice Krispies,
- Cut banana into sushi-sized bites and serve.

Serves: 1-3 people per serving

Notes:

Write your own recipe:
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Directions:
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Serves:
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Notes:

## SUPPLEMENTAL Session 4: Smoothies

Optional Smoothie Ingredients:

## Banana Blend

- 2 bananas
- $1 / 2$ cup vanilla yogurt
- $1 / 2$ cup milk
- 1 teaspoon honey
- pinch of cinnamon
- 1 cup ice


## Strawberry-Banana Blend

- 1 banana
- 1 cup strawberries
- $1 / 2$ cup vanilla yogurt
- $1 / 2$ cup milk
- 1 teaspoon honey
- pinch of cinnamon
- 1 cup ice


## Triple-Berry Blend

- $11 / 2$ cups mixed berries (blackberries, strawberries and raspberries)
- 1 cup milk
- 1 teaspoon honey
- 1 cup ice


## Raspberry-Orange Blend

- 1 cup orange juice
- 1 cup raspberries
- $1 / 2$ cup plain yogurt
- 1 teaspoon honey
- 1 cup ice


## Peach-Mango-Banana Blend

- 1 cup chopped fresh or frozen peaches
- 1 cup chopped fresh or frozen mango
- $1 / 2$ banana
- 1 cup plain yogurt
- 1 cup ice (leave out if you use frozen fruit)

Directions:

- Put all ingredients in a blender (always put hardest (ice) on the bottom)
- Put lid on tightly
- Blend and serve

