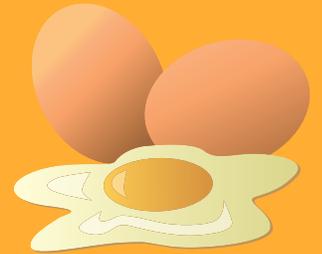


Safe Recipe

LESSON PLAN



For
Teachers



Creating Safe Recipes

Duration: 30 minutes

Grades: 6 to 8

Lesson Plan

National Health Education Standards

- 1.8.8 Examine the likelihood of injury or illness if engaging in unhealthy behaviors.
- 1.8.9 Examine the potential seriousness of injury or illness if engaging in unhealthy behaviors.
- 7.8.2 Demonstrate healthy practices and behaviors that will maintain or improve the health of self and others.
- 7.8.3 Demonstrate behaviors to avoid or reduce health risks to self and others.

National Science Education Standards

- MS-LS1-5 Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms

Learning Objectives

- Students will analyze the risk and health consequences of foodborne illnesses associated with specific food products and behaviors
- Students will create a recipe that includes instruction for safe food handling, preparation, and storage

Background Knowledge

Research shows that when cooks use recipes with basic food safety information, their food safety behaviors improve. The Safe Recipe Style Guide shows simple edits to boost food safety in any recipe. It focuses on the main areas of food safety problems in homes: temperature, handwashing, cross contamination, and produce. Wording of the Style Guide was chosen by experts to be effective for home cooking.

Studies have shown that most home cooks do not wash their hands properly. When food safety instructions are included in a recipe, handwashing increases from 59% to 90%. Using a food thermometer to check for a safe temperature is also important. Including these instructions raises food thermometer use from 20% to 86%.

Brief Summary of Activity

Students will be given a list of resources for food safety and meal preparation. They will then choose one of five provided recipes without safety instructions and spend 15 minutes making corrections to improve the recipe's safety. Safe versions of the recipes, based on the Safe Recipe Style Guide, are at the end of this packet. Finally, they will take an online quiz on the safety of their recipe and make the recommended changes.

Materials

- Computer or tablet with document editing (i.e. Microsoft Word) and internet connection
- Activity sheet with food safety resources, instructions, and recipes without safety instructions

Activity Guide

Activity Introduction

One way we can get sick is from harmful germs on the food we eat. There are a few things you can do when preparing and cooking food to keep it safe. They are all listed in the Safe Recipe Style Guide in your packet. We will go over them now.

First is temperature. Does anyone have any ideas why temperature is important in cooking? *(might be bacteria or germs in the food, so we don't get sick)* Harmful germs in food are killed when food reaches a certain temperature. This temperature is different for each food, which is why a temperature chart is included in your packet. Measure the temperature of the middle of the food with a food thermometer. These are sold at most grocery stores.



Second is handwashing. By a show of hands, how many of you wash your hands before touching food? How long are you supposed to wash your hands for? *(20 seconds or as long as it takes to sing the ABC song or Happy Birthday twice)* What foods do you think you need to wash your hands after touching? *(raw meat, raw seafood, raw eggs)* You should wash with soap and water for 20 seconds before you cook and after each time you touch raw meat, poultry, seafood, or eggs. Washing your hands keeps you from spreading germs that might be on the food.

Third is cross-contamination. Does anyone know what cross-contamination means? *(germs spreading from one place to another)* It is how germs spread. Harmful germs in the juices of raw meat, poultry, seafood, and eggs can touch food that is ready to eat and get you sick. You should wash cutting boards, knives, plates, and other objects after touching these foods to prevent this. Also, do not rinse meat and poultry! This is not a safety step and will only spread germs to your sink and other kitchen spaces.

Last is produce. Do you think you should always rinse your fresh fruits and vegetables? Why? *(to reduce bacteria or germs)* Yes, you always should, even if it has a skin or rind that you don't eat (like oranges and watermelon). This helps remove germs from the outside. If the produce has a thick skin, like cucumber, potatoes, or melon, scrub it with a vegetable brush while rinsing under running water.



Activity Guide, cont.

Activity Instructions

Your packet includes five basic recipes. They do not have food safety instructions from the Style Guide that we just discussed. Your job is to use the Style Guide to add safe instructions to your favorite recipe. Then, you will click the link to take the online quiz to see how safe your recipe really is! Remember to make any changes the quiz tells you to. Does anyone have any questions?

Activity Discussion

- How did you do creating a safe recipe? *(had to make a few corrections, okay, you did really well)*
- Were there any guidelines that surprised you? Why? *(Take a few answers)*
- Why do you think it is important to write and use safe recipes? *(to help us remember food safety steps so we don't get sick)*
- When recipes are written safely, it helps the home cook practice food safety. This keeps people from getting sick! Do you think you can add food safety instructions to any recipe?
- Yes! You can use your Safe Recipe Style Guide to make any recipe safer.

Extending the Activity

- Ask students to select their favorite recipe or create a new recipe, and make it a safe recipe.
- Ask students to work at home with a parent or family member to turn a favorite family recipe into a safe recipe.





Writing Recipes to Improve Home Food Safety



TEMPERATURE

Cook until internal temperature reaches XX *(fill in the blank and include chart with specific foods)* on food thermometer.



HAND WASHING

Wash hands with soap and water. *(Include this at beginning of recipe and after each touch of raw meats, poultry, seafood or eggs).*



CROSS-CONTAMINATION

Wash *(insert cutting board, counter, utensil, serving plate)* after touching raw meats, poultry, seafood or eggs.

Do not reuse marinades used on raw foods.

Do not rinse raw poultry or meat.



PRODUCE

Gently rub produce under cold running water.

Scrub firm produce with a clean vegetable brush under running water.

Safe Minimum Internal Temperatures

as measured with a food thermometer

Beef, pork, veal and lamb
(*roasts, steaks, and chops*)

145 °F with a three-minute “rest time”
after removal from the heat source

Beef, pork, veal and lamb
(*ground*)

160 °F

Poultry
(*whole, parts, or ground*)

165 °F

Eggs and egg dishes

160 °F – Cook eggs until both the yolk
and the white are firm; scrambled eggs
should not be runny

Leftovers

165 °F

Finfish

145 °F

Shrimp, lobster and crabs

Flesh pearly and opaque

Scallops

Milky white, opaque and firm

Clams, oysters and mussels

Shells open during cooking



Safe Recipe #1: Vegetarian Lasagna

Creating Safe Recipes Activity

Ingredients (makes 8 to 10 servings)

- 2 packs of frozen meatless ground crumbles
- 8 ounces lasagna noodles, uncooked
- 2 jars of pasta sauce (24 oz.)
- 1 medium onion
- 1 medium green, red, or yellow pepper
- 1 or 2 packs of shredded cheese
- 2 Tbsp of extra virgin olive oil
- 1 Tbsp basil
- 1 Tbsp oregano
- 1 Tbsp garlic powder
- 1 Tbsp Jamaican Jerk seasoning (optional)



Instructions

1. **Wash hands with soap and water.**
2. Preheat oven to 350 °F.
3. **Gently rub pepper and onion under cold running water.**
4. Chop the onion and pepper into small chunks
5. Add 2 tbsp of oil to skillet at medium high heat. Pour the frozen crumbles into the skillet.
6. Cover skillet with a lid. Heat at medium high for 3 to 4 minutes. Stir occasionally.
7. Remove lid. Heat an additional 4 to 5 minutes, stirring constantly.
8. Pour all the sauce into the skillet with the browned crumbles. Add the chopped onions, peppers, and spices.
9. Cook sauce for 4 to 5 minutes, until the onions are translucent, and the peppers softened. Remove from heat.
10. Spread a little sauce in bottom of casserole or lasagna dish. Arrange one layer of uncooked lasagna noodles lengthwise (about 3 long noodles, edge may overlap, depending on your pan) over the sauce. Ladle a third of the remaining sauce over the noodles. Sprinkle a layer of a third of the shredded cheese on top of the lasagna sauce.
11. Apply second layer of noodles, top it with half of the remaining sauce. Add half of the remaining shredded cheese.
12. Finish with another layer of noodles. Spread the remaining sauce over the top layer of noodles and sprinkle with the remaining shredded cheese.
13. Cover with aluminum foil. **Bake at 350 °F until internal temperature reaches 165 °F on food thermometer**, about 45 to 50 minutes.
14. Uncover and return to oven uncovered for 5 minutes to melt cheese on top (if needed)
15. Let stand for 10 minutes and serve.

**Recipe by Shawnte Loeri, PFSE Communications Associate*

Safe Recipe #2: Breakfast Quiche

Creating Safe Recipes Activity

Ingredients (makes 6 to 8 servings)

- 1 frozen pie crust, thawed according to directions on box
- 4 eggs
- $\frac{3}{4}$ cup whole milk
- 1 cup shredded cheddar cheese
- 8 strips of bacon
- $\frac{1}{2}$ green bell pepper, diced
- 5 green onions, chopped
- $\frac{1}{4}$ tsp each of salt and pepper



Instructions

1. **Wash hands with soap and water.**
2. **Gently rub the bell pepper and green onions under cold running water. Do not rinse raw meat.**
3. Dice and chop the bell pepper and green onions:
4. Line a baking sheet with tin foil. Place strips of bacon flat on the foil; do not overlap them.
5. **Wash hands with soap and water.**
6. Prior to preheating, place in the oven, then set oven to 400 °F and bake for 12 to 17 minutes. Check every couple minutes starting at 10 minutes to ensure it does not burn. When done cooking, remove the bacon from the oven and use tongs to place on a paper towel to absorb excess grease. Cut or crumble the bacon into small pieces.
7. Reduce temperature of the oven to 350 °F.
8. In a medium mixing bowl, mix eggs, milk, cheese, crumbled bacon, green pepper, green onion, salt, and pepper. Pour into the thawed pie crust.
9. **Wash hands with soap and water. Wash utensils after touching raw meat.**
10. Bake 40 to 50 minutes, **until internal temperature reaches 160 °F on food thermometer.**

**Recipe adapted from Pillsbury Kitchens "Bacon and Cheese Quiche"*

Safe Recipe #3: Turkey Burgers

Creating Safe Recipes Activity

Ingredients (makes 4 burgers)

- 1 pound 93% lean ground turkey
- 1 Tbsp plain dry breadcrumbs
- ½ tsp salt
- ¼ tsp coarse ground black pepper
- ¼ tsp (heaping) garlic powder
- ¼ tsp (heaping) onion powder
- 2 Tbsp mayonnaise
- 2 tsp Worcestershire sauce
- 1 Tbsp olive oil
- 1 large tomato, sliced
- 4 to 8 slices of lettuce
- Ketchup and mustard to taste
- 4 hamburger buns



Instructions

1. **Wash hands with soap and water.**
2. **Gently rub the tomato and lettuce under cold running water. Do not rinse raw meat.**
3. Slice tomatoes and lettuce.
4. Add ground turkey to a medium mixing bowl. Sprinkle in breadcrumbs, salt, pepper, garlic powder, and onion powder. Add mayonnaise and drizzle in Worcestershire sauce.
5. Gently toss and break up meat mixture to evenly blend. Divide into four equal portions and shape into patties about 1/2-inch thick.
6. **Wash hands with soap and water. Wash utensils after touching raw meat.**
7. Preheat olive oil in a 12-inch non-stick skillet over medium-high heat for a few minutes.
8. Add turkey patties and sear until golden brown on bottom, about 4 to 5 minutes, flip and continue to cook until cooked through, about 4 to 5 minutes longer. **Cook until internal temperature reaches 165 °F on food thermometer.**
9. Serve warm in hamburger buns with toppings of choice.

**Recipe adapted from Cooking Classy's "Turkey Burgers"*

Safe Recipe #4: Chicken Pepper Bake

Creating Safe Recipes Activity

Ingredients (makes 5 servings)

- 1 pound boneless chicken breast
- 2 red or green bell peppers
- 3 cups small potatoes
- 2 Tbsp oil
- 1 tsp Cajun seasoning
- 1 tsp dry Italian herbs
- Salt and pepper to taste



Instructions

1. **Wash hands with soap and water.**
2. **Gently rub produce under cold running water.**
3. Cut the peppers and potatoes into bite-sized chunks.
4. Cut the chicken into bite-sized chunks. **Do not rinse raw poultry or meat. Wash utensils after touching raw meat.**
5. Place the meat and vegetables into a large bowl. Sprinkle with oil, Cajun seasoning, Italian herbs, salt and black pepper. Toss to coat evenly.
6. **Wash large bowl after touching raw meats. Wash utensils after touching raw meat.**
7. **Wash hands with soap and water.**
8. Place the chicken and vegetables on a metal baking pan.
9. **Wash hands with soap and water.**
10. Roast in a 425 °F oven for 35 to 45 minutes. Toss a couple times while roasting.
Cook until internal temperature reaches 165 °F on food thermometer.

**Recipe adapted from Oregon State University Food Hero's "Chicken Pepper Bake"*

Safe Recipe #5: Pesto Salmon & Veggies

Creating Safe Recipes Activity

Ingredients (makes 4 servings)

- 1 pound salmon, skin and bones removed
- 1 pound zucchini or summer squash
- ½ pound cherry tomatoes
- 1 cup spinach leaves
- 1 cup fresh basil leaves
- ½ cup pine nuts
- ⅔ cup grated Parmesan cheese
- 3 Tbsp olive oil
- 2 cloves minced garlic



Instructions

1. **Wash hands with soap and water.**
2. **Gently rub zucchini, cherry tomatoes, spinach and basil under cold running water.**
3. Chop the zucchini and cherry tomatoes.
4. Preheat oven to 400 °F.
5. On a sheet pan, arrange the salmon in the middle with the cut veggies and cherry tomatoes in a circle around it. Set aside.
6. **Wash hands with soap and water.**
7. In a food processor combine the spinach, basil, Parmesan, pine nuts, olive oil and garlic. Blend until smooth. Spread the pesto on top of the salmon and spoon the remainder on top of the veggies.
8. **Wash hands with soap and water. Wash utensils after touching raw seafood.**
9. **Cook until internal temperature reaches 145 °F on food thermometer** and the zucchini/squash can easily be pierced with a fork, about 18 to 20 minutes. Serve warm and enjoy.

**Recipe adapted from 100 Days of Real Food's "Pesto Salmon Sheet Pan Dinner"*