

Curriculum Units by Fellows of the National Initiative 2008 Volume VI: Nutrition, Metabolism, and Diabetes

Food Allergies Beware: We Know your Secret!

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Introduction

Learning about nutrition and food allergies can be exciting for third grade students, yet at the same time, scary too. The concepts and ideas presented in this unit, as well as most information on the role of the immune system in allergic reactions, are difficult for most people to understand, particularly young children. In preparing to organize this unit of study, it was important for me to gain as much content knowledge as I could to best facilitate the learning process to my students. I realize that there are going to be many challenges throughout this unit, the biggest one being the fact that it is essential that I am honest and upfront with the students at all times, even if the information may scare them. The goal of this unit is to deliver content information related to the area of food allergies so that the students can have a greater understanding of this topic.

District Demographics

Appoquinimink School District is located in Middletown, Delaware. Reaching over 8,000 students, Appoquinimink serves more than 135 neighborhood communities ranging in grades K-12. In 2003, Brick Mill Elementary School was added to the four other elementary schools in the district. Brick Mill students are in grades 1-5, in a building where the capacity has been met at approximately 800. The student population is mixed, although predominantly white. I teach in a third grade classroom and have done so for the past five years. The average size for a class is anywhere between 22-27 students.

Rationale

As I enter my eighth year of teaching, I have seen an increase in the number of students who enter my school with food allergies. When my building first opened in 2003 a student entering first grade came to our school with a severe peanut allergy. The allergy was so bad that the nurse had to give small lectures over many days in order to educate the staff on the allergy. Since that time, we have had many more meetings like that, but each one focuses on a different allergy. To me, it seems as if the type of allergies, as well as the severity of the allergies, is growing every year. I have done a great deal of research trying to find numbers and reasons why this is a growing health problem, but have come up with little definitive information. This is largely due to the fact that for the type of allergy that I will be discussing in this unit, peanuts and tree nuts, there is no known cure. Approximately 12 million Americans today have a food allergy and of that, about 3 million American kids suffer from food allergies, a number which has doubled in the last five years. Research has shown that at least 90% of all food allergies are caused by a few foods: peanuts, tree nuts, eggs, milk, shellfish, fish, wheat, and soy. As part of the unit, the students in my classroom will need to learn and comprehend nutritional information on food packages and organize that information to make informed decisions about eating that product.

The little girl who entered the first grade in 2003 joined my classroom in third grade during the 2005/2006 school year. While I was aware of food allergies and how to check for reactions, I had no idea what it entailed to keep this child safe in and out of the classroom. From constant hand washing to sterilizing the classroom, the list was long of all the preparations I needed to make before this student entered my classroom. Along with the education I received on a food allergic child, I also found ways to have the other students in the class become involved in the process of keeping the environment safe. I want to teach this unit to my students for a variety of reasons, but the most important one is that I want to make kids aware of food allergies and how to keep someone who has an allergy safe in the school environment. In doing this, I hope that the students will be able to answer questions that they may have in terms of what allergies are, how someone may develop a food allergy, what some common foods that cause allergic reactions are, and what happens to our bodies when we have a reaction to a food. I also want the students to be able to gain a better understanding of prevention of food allergy symptoms and how the students can create a safe environment for a student who has a food allergy. After the completion of this unit on awareness and intervention, my hope is that students who had no idea what an allergy is or how to deal with it will gain a better understanding. A broader goal would be that all students become more tolerant to people who live with allergies everyday.

At the completion of the 2003-2004 school year, Brick Mill Elementary received the Muriel C. Furlong Award, from the Food Allergy and Anaphylaxis Network, for the work that the teachers in our building do for keeping food allergic kids safe. Because I have done an extensive amount of research on the topic of food allergies for my own information, I am eager to share that knowledge with the students in my classroom. Since more and more students are entering our building with a food allergy, I think that it is critical that we know how to appropriately deal with it. I plan to teach this unit in conjunction with another unit taught in the third grade curriculum called Human Body. The lessons and classroom activities planned should take between three to four weeks to teach.

Objectives

This unit contains a great deal of information for the students to learn and understand. This can be overwhelming for third graders, so I divided this unit into three main parts. The first part will entail the students learning about what a food allergy is, how a person can develop a food allergy and what are some common foods that cause a food allergy. Since there is no cure for a food allergy, the second part of this unit will go into detail about how a food allergic child can prevent coming in contact with a food that they are allergic to and also how to prevent an allergic reaction. The third and final section of the unit will discuss how teachers and school staff can work together with parents and students to ensure safety for the food allergic child. The information presented in this section can and should be mentioned to the students to make them aware of how they play a key role in school safety for a food allergic child.

Throughout the unit, students will view nutritional and ingredient labels on various foods and be able to make informed decisions as to whether or not that food would be able to be consumed by a food allergic child. The students will look for the 8 most common ingredients that cause a food allergy in food labels to make a determination as to whether the food would be safe for a child that has a food allergy. The students will also use the nutritional information to organize a lunch menu that will be safe for children who have food allergies. Since reading food labels will be an important part of this unit, the students will compare labels of foods that contain food allergies and ones that do not. I will also have the students bring in nutritional labels from home that may or may not contain a food allergen and the students will be asked to determine whether the product is considered ""safe"" for consumption by a food allergic child.

At the completion of this unit, students in my classroom will be able to do the following: observe and investigate properties of foods, become aware that food has different components and what they are, become aware of food guidelines, become informed consumers making sure to gather the right information to make informed decisions, acquire appropriate vocabulary terms and use scientific thinking processes to explain what they have learned.

Food Allergies/ Intolerance/ Awareness

Food allergies come in many forms and are sometimes difficult to detect prior to an allergic reaction. Although often misunderstood, a food allergy is ""an immune system response that creates antibodies to attack substances in a food that your immune system identifies as harmful to you"". ¹ Throughout this process, chemicals called histamines cause your body to have a reaction that can range from mild to life threatening. There are common symptoms that can provide an alert that there is a reaction taking place. They are, but not limited to; hives, swelling or itchy rash of the lips, tongue, or mouth area, chest pain, stomach cramping or severe pain, fainting or passing out, instilled fear, anaphylaxis, or the worst symptom, death.

Our immune system is made up of cells that protect our bodies from infection. An allergy occurs when our immune system becomes directly involved in the fighting of an invader, more commonly known as an allergen. The body reacts negatively towards this allergen, therefore resulting in symptoms. As part of a person's response to protect itself from these invaders, the immune system releases antibodies of a certain

kind called immunoglobulin E, or IgE. Once released, the antibodies provoke a set of reactions in the body that result in the release of a chemical called histamine into the bloodstream: histamine sets off a series of body responses that are designed to get rid of the allergen. When too much histamine (and other chemicals) are released, an allergic reaction can occur. Food does not normally cause a negative response on the bodies immune system however for someone who has an allergy, a particular food that enters the body causes an abnormally strong immune system reaction through IgE.

How a person first develops a food allergy is not exactly clear, however through my research I have read that there are three common ways. First, although it is not certain, many believe that children are more likely to develop a food allergy when coming from a family that already has a history of other allergies such as hay fever, asthma, or eczema. In other words, a newborn may have the genetic make up that makes them susceptible to an allergy. Second, previous exposure to some quantity or form of a food that causes your body to produce abundant IgE antibodies will provoke a response the next time that food is consumed. Lastly, if you consume food that has caused you problems in the past your immune system will go into full effect to get that food out of your body and do its best to make sure you do not consume it again. Doctors believe that developing food allergies can be hereditary, they also have seen situation where some kids develop the food allergy from birth while others develop it over time. Developing a food allergy over time can be caused by a variety of things including a person''s surrounding environment and diet. For a person who is not sure whether or not they have an allergic reaction to a certain food, eliminating and then re-entering that food into the diet can help to determine the trigger.

Even though there are no known risk factors for developing a peanut allergy, a family history of allergies may help to determine whether you or your child may be at risk. If there is a presence of atopy, the tendency to produce the antibodies to an allergen, then your risk could be greater of developing an allergy. This atopy can be determined by tests at a doctor''s office. There have also been studies that suggest the ingestion of peanuts during pregnancy and/or a child''s ingestion of peanuts or peanut oil as an infant can increase the risk of developing a peanut allergy. It should be noted here that these findings have not been proven in studies. Along with peanuts there is also a link to the allergy of soymilk and soy formula because peanuts and soybeans both belong to the legume family.

People can be allergic to almost any food, but most food allergy reactions are caused by eight: milk, egg, soy, wheat, peanut, tree nuts, fish, and shellfish. There are two types of reactions that people can have from food. Immediate reactions are reactions where your body reacts to the food as soon as it enters your body. This can include, but is not limited to, redness in the skin and/or hives, warmth or swelling of the skin, itching and/or swelling of lips, throat, and tongue, itchy eyes, sneezing, coughing, and/or hoarseness, wheezing, chest and throat tightness, nauseam vomiting, abdominal cramps and/or diarrhea. Some common foods that cause immediate reactions are peanuts and shrimp. Delayed reactions are reactions where it may take time to show symptoms after the food has been eaten and digested. This can take anywhere from minutes, to hours, and in rare cases, days. The symptoms for a delayed reaction can range anywhere from shortness of breath, increased heart rate, the feeling of suffocation, sharp pains in and around your stomach, vomiting, and/or severe diarrhea, loss of consciousness due to rapid and severe drop in blood pressure, sudden feeling of dread or fear that something isn''t quite right. Some common foods that cause delayed reactions are milk, wheat, and corn products.

In reference to the common allergy in my school, peanuts, here is a list of ingredients that, if found in a food, would cause a reaction in someone who with a peanut allergy: peanuts, peanut flour, peanut oil, peanut butter, mixed nuts, hydrolyzed plant and/or vegetable protein, marzipan, pecan flour, pecan meal, beer nuts,

ground nuts, nougat, almonds, walnuts, cashews, and pecans. Although this list is lengthy, it does not cover everything. It is safe to stay away from all types of Chinese, Tai, and Japanese food because they use so much peanut oil and nuts in their cooking that there is a risk of those oils getting onto other ""safe"" foods. In addition, many types of chocolate candy contain peanuts or tree nuts, or they run the risk of touching other products due to shared product lines. Reading labels is also crucial for safety purposes. Labels that say, ""may contain traces of peanuts or tree nuts" are warnings for the possibility of cross contamination.

Cross contamination is when components on food, people, or work equipment get spread from one surface to another. Sometimes ""safe"" ingredients for a food allergic child can become tainted with other foods that are not ""safe"". There are many ways to prevent cross contamination in foods beginning with always washing your hands prior to, between, and after handling foods. Before cooking in any capacity, all equipment and utensils need to be cleaned and sanitized. While cooking, be sure to avoid touching the face, skin, and hair. If this occurs, washing of the hands immediately would be a good idea. When storing foods properly, making sure that foods which are raw and cooked are separated. By taking this precautions, food safety can be guaranteed and there is a reduction in the risk of cross contamination of food products. Many non-peanut products such as cookies, crackers, and candy are made on shared equipment. It is also important to continue reading labels even if you always buy the same products. Manufacturers change their ingredients without warning.

People who have severe allergies, must be prepared to treat an allergic reaction at all times. Administering a medication called epinephrine, usually dispensed in a syringe form, can relieve some of the awful reactions before medical help is called. An immediate injection of this medicine relaxes inflamed airways and gives relief from the feeling of being suffocated. If the reaction is not severe, or if a person thinks they may have been exposed to an allergen but is not sure, an antihistamine pill can be taken to relieve the symptoms of an allergic reaction. However, both are not cures for the allergy attack and medical help should be contacted in either situation. Allergic children and adults need to carry these injection pens with them at all times as well as make them ready available in schools and places of employment. I have been personally trained on two readily available injectors, the EpiPen & reg; and EpiPen & reg; Ir auto-injector. It is crucial that the food allergic person know how to use and operate the injection pen, but those surrounding the person should be trained as well in the event that the effected person is not able to inject his or herself. There are some side effects of taking this type of medication. These can include; increased heartbeat, sweating, nausea and vomiting, as well as some difficulty in breathing. In addition to carrying the epinephrine injectors, antihistamines should be readily available as well. In all cases of a food or other allergy, the person should wear a medical ID bracelet with the allergy clearly stated on it so that proper treatment can occur incase of an emergency. In the case where an epinephrine pen needs to be operated, medical treatment should immediately follow the administration. Those effected need to know that the medication was administered properly and that it is in fact working. In addition, sometimes delayed reactions can occur from the allergen, in these cases it is better to be checked my a medical professional to advise treatment when that does occur.

There is some confusion as to the difference between an actual allergy to a food and an intolerance. Your body may react to a food in such a way that you think you have an allergy, whereas really your body may just be lacking the necessary mechanisms that it needs to break down a food ingredient, causing an intolerance or negative reaction on your body. A food intolerance can be described as a bad reaction to food where the involvement of the immune system is not certain, and allergy testing may not be conclusive for that type of food. Therefore, the body can endure you eating the food, but it may not feel very good as it is digesting. Food allergy and intolerance symptoms sometimes have similar symptoms including diarrhea, vomiting and/or stomach pain. An actual food allergy engages the immune system; an intolerance occurs when discomfort

arises from other causes. Intolerance is best treatable by not eating the food anymore, or taking over the counter medications. The most common food intolerance is one that has to do with lactose, which is the sugar found in milk. Lactose intolerance occurs when a person lacks an enzyme needed to digest this sugar, and the body reacts with gas, bloating, diarrhea, and abdominal pain when milk products containing lactose are consumed. When these symptoms occur (because of intolerance rather than allergy), they do not indicate an immune or anaphylactic reaction. The reaction should be noted to a medical professional and documented as to prevent future problems. Creating a list of these foods that cause discomfort would be helpful and then avoiding them at all costs would make the most sense.

Prevention

Families that have a history of food allergies are the first line of defense in trying to prevent allergies in younger siblings or other family members. Since there are some foods that cause allergies more often than others, it is stressed early on to parents that they should stay away from introducing their children to these particular foods until the age of two. Doctors believe that it is during the first two years of life, when food allergies, if present, are going to arise. Although it is not necessarily proven that this is 100% effective, at least it is a start in prevention.

Prevention of a food allergic episode is key in making sure that the food allergic child can feel safe in any setting. There are some strategies that have been known to make a difference in the home of children who do not form food allergies. They are: avoiding smoking in and around the home living areas and other family members; encouraging mothers to breastfeed exclusively; using hypo-allergenic brands, if using baby formula; introducing probiotics into a child''s diet; and waiting to introduce solid foods until a baby is at least six months old. Again, these approaches are not 100% proven effective, but they are known to make a difference in the prevention of a child developing a food allergy.

I want my students to know that they are key players in making sure that a food allergic child does not have a reaction at school. Having an understanding of what a food allergy is and what happens when a reaction occurs can motivate students to want to prevent the allergic reaction in the first place. Knowing how to read a label on a food product and understanding that there may be more than one name to describe the allergy food is key to prevention. One mother of a food allergic child described that it takes her hours to grocery shop for her family. This is not because the store is crowded, but because she has to read every single label no matter if she has purchased the product before from the very same store. She described an incident that happened few years ago that sent chills up my spine. One day, while grocery shopping, she picked up a bag of cookies that her children ate all the time and that she had bought at this store many times before. A few days later, she had served those cookies to her food allergic child and a few of his friends. Within minutes, the child alerted his mother that his tongue felt funny and he did not like the cookie. His mother, shocked that this was happening, remembered that she had not looked at the label before purchasing them. After grabbing the package she noticed that the same cookies that she had been buying for years had changed their recipe to now include shea butter. Shea is a form of nut that can, but does always, cause a reaction to people who have a nut allergy. A few spoonfuls of Benadryl and a call to the doctor later, her son was fine and the allergic reaction was kept at a minimum. Right away the mom called the cookie company to find out what had happened and why the recipes had changed and, even more importantly, why that information was not clearly labeled on the packaging. As you can imagine, this mother was furious and realized that she can never again

go without looking at the packaging before making a purchase.

Since prevention is the key, the government has set up a plan where students and parents can feel safe at school. This Section 504 Accommodation Plan is implemented with the help of the school guidance counselor, principal, school nurse, classroom teacher, and parents of the food allergic child to help the child with the medical diagnosis. This document explains all the preventative measures that are to be put in place by the school to prevent exposure to the food allergy. Some of these interventions and strategies that are to be carried out by school faculty are: not allowing any type of food to enter the child''s classroom without the teacher and/or parent reading any and all labels affixed to the product; discussing food allergies at staff meetings at the beginning of the school year making sure to identify where the students will be located in and around the school building; sending letters to the parents of the students classmates that explains the circumstances that surround the food allergy; and making custodians aware that when cleaning the classroom where there is a food allergy they will use different cleaning products and materials as to prevent cross contamination. This list, though informative, does not even cover all of the accommodations that I myself put in place each year even if there is not a food allergic child in my class.

School Safety/ Intervention

School and classroom safety is my top priority when it comes to making parents feel good about sending their food allergic child to school. Convincing the parents that the classroom and cafeteria can be a safe place for their child in terms of the food allergy is sometimes a daunting task. Being aware of the growing number of allergies in our school a few years ago, Brick Mill pulled all peanut butter and nut products from the breakfast and lunch menus. This included all products served in the cafeteria including snacks. Since peanut butter and jelly sandwiches are a favorite of most elementary aged children, it was impossible for the café to get rid of them completely. Therefore, instead, the café will serve prepackaged ""Uncrustables"" manufactured by Smuckers. These sandwiches are produced off premises and are shipped in their own boxes to prevent any cross contamination. The students are to only open the packages once purchased and at their tables for consumption. I am unaware of any studies that have been done in regards to the effectiveness of this particular way of managing the limit of the allergy, but I can say from personal experience in the cafeteria, that this limits exposure to the allergen tremendously and also allows food allergic children to have the option of purchasing the food made by the café.

This part of the unit will be organized in a way that includes making a plan for the children in the class to receive information surrounding the food allergic child. I accomplish this in two ways. First I discuss some strategies that I myself have used in the classroom to ensure safety and then I will discuss the things that the students will need to know and learn during the teaching of this unit.

Teacher Related Content

Constant communication with the parents of a food allergic child is key to a successful school year. Whether that be through an agenda book, over e-mail, or phone, making sure that the parent knows that child is safe is important. I made sure that whenever food might be introduced to the classroom that the parents knew right away. Although this did not happen often, it did happen and knowing that I could let the parent know right away made me feel better. As soon as I have been made aware that there is a food allergic child in my classroom I have a meeting with the parents, building principal, and school nurse. This initial meeting is one of many that will occur throughout the school year to make sure that the child stays safe in the classroom. At this meeting, basic procedures about the daily routine of the classroom are discussed. Beginning with the parent coming in to the classroom on the first day of school, all students in the classroom as well as their families will be made aware that there is a food allergic child in the class. After reading a book and watching an age appropriate video, the students and I come up with a written list of all procedural items that must be followed to ensure continued safety. Along with other important paperwork given to the students on the first day of school, they are also given a letter written by the food allergic parents notifying the student's families of their child's food allergy. This letter contains contact information for families in case they have any questions, concerns, or comments that they want to address with the food allergic child's family. In the past, I have known parents to write back to that letter with their sincere apologies that they need to deal with this very serious issue. In all my years of teaching with a food allergic child in my classroom, I have never encountered a family who was not been willing to cooperate to make sure that the classroom stays ""safe"".

Outside of the classroom door there is a sign posted to warn of an allergy in the classroom. This also is a reminder for the students that when they enter the classroom for the first time that day, they are to immediately go to the sink to wash their hands using liquid soap and warm water. The students then wash their hands prior to lunch, after coming back from the cafeteria, after using the playground equipment at recess and then again before leaving the classroom at the end of the day. In addition to all the hand washing, the students know that at any point in the day, if they even think that they have been contaminated they need to wash immediately. Located on the front board in my classroom is a T chart where on one side the words ""I have Peanut Butter"" is written and on the other side ""I need to be checked"" is written. When the students enter the classroom in the morning, they are to write their names under the appropriate column. If the child places his/her name under the peanut butter column, I know that this is someone who may possibly be a risk to the food allergic child and will take extra precautions to make sure that there is no cross contamination. If a child places his/her mane under the check me column, I know that they are not sure if their lunch is ""safe"" or not and they need me to either check their labels or help them to determine food safety.

Student Related Content

The students in my class are always asking what they can do to make sure that the classroom stays food allergy safe. This inquiry begins early on, as talking about food allergies with the students is one of the first things I do in the beginning of every school year. During the first few weeks of school the students are introduced to food allergies and have had opportunities to ask questions and make comments about their feelings regarding this issue.

Intervention at school begins in the home. All students need to be made aware of how to read nutritional and ingredient labels, so as not to bring products into school that may be contaminated with the allergen. During this unit, the students will have the opportunity to read labels, and to learn how to interpret labels to make sure there is no presence of the allergen. In the case of this unit, the allergen that the students will be trained to look for is the peanut, or any other nut products as described earlier. Reading labels in the classroom and at home with the parents will increase awareness and decrease exposure to the allergen. Although a list of ""unsafe"" ingredients was described earlier, it is also important to mention to the students that there are some ingredients that may sound like they have the allergen, but in fact do not. Water chestnuts, nutmeg, and coconut, are foods that fit into this category. While talking about labels and nutritional information, the students need to be aware the food items can be found in non-food items. Some examples of this would be

wheat found in play dough, nuts found and bird feed, and other miscellaneous crumbs or food particles found in stuffed animals, blankets, or toys.

In most cases of peanut and tree nut allergies, home baked goods are not safe due to cross contamination. But there are plenty of other alternatives that students can make at their birthday parties if inviting a food allergic child. These include gelatin with whipped topping, rice crispy treats, ice cream with limited ""safe"" toppings, frozen fruit treats and of course fresh fruit. For some students, these alternatives may even sound better than birthday cake.

Other than just talking about food and how to know what it and is not safe, it is equally important to discuss what to do in the event of a food allergic child coming in contact with the allergen. Not only should the affected child know what to do, but all involved students should have a plan in the event of an emergency. All students in the class will learn how to recognize that someone is in distress. Knowing what an allergic symptom looks like, and reacting quickly if it occurs, are key in saving a child''s life. Developing a procedure/protocol plan with your students on how to alert adults that someone is in danger it crucial. Students need to be made aware of appropriate language to use when conveying messages that a child has eaten an allergen and may possibly need medical attention.

After presenting the content of food allergies, prevention and intervention, the students will be involved in a discussion of the pros and cons of different ways to create a safe eating environment for the peanut and food allergic child. Some possible scenarios to create this environment are: enforcing a school wide peanut ban; having the child eat outside of the cafeteria; having the school eat at a designated table away from the other children, but still in the same room; having the child eat at a regular lunch table with their classmates with some accommodations; hiring an aide to eat with the student during meals; or having no accommodations. The students will be exploring each of these possible solutions for food safety and have a discussion about the issues.

Lesson Plan One

Objectives:

The students will be writing a recipe for a meal that is ""food allergy"" safe, particularly peanut and tree nut free. The students will create a food allergy safe list of ingredients, combining them to make an item that can prepared in the classroom, donating the products, mixing the ingredients, preparing the dish and then serving it to parents and other students in the classroom.

Procedure:

Throughout the unit, the students will be learning about the eight most common foods that cause a food allergy. They will also be reading labels and nutritional information to determine whether a food is deemed ""safe"" or not for a food allergic child. For this lesson, the students will brainstorm ingredients that would be safe for a recipe that can be eaten by a food allergic child. Since I have the most exposure to students having a peanut allergy, the ingredients will be ""safe"" for the peanut and tree nut allergic child. After deciding what type of meal or item to make, the students will donate those ingredients to the classroom so we can prepare it together.

I include two sample recipes here with a list of ingredients and procedures to make ""peanut and tree nut"" safe food items. The following recipes were taken from the website titled Diet Enlightened:

http://dietenlightened.com/site/page.php?index. At this location you will also find additional recipes for "peanut and tree nut"" free meals as well as food items that are safe for all types of allergies.

Recipe One:

Chocolate Covered Banana Slushy

Description

A low-fat slushy mixture that's quick & easy

Ingredients

3 cups fat-free milk, divided

1/4 cup artificially sweetened chocolate instant beverage mix

1 medium banana

Preparation

Combine 2 cups milk and beverage mix in a pitcher. Whisk until powder dissolves. Pour chocolate milk into ice cube trays (about 2 tbsp per cube). Freeze until solid (about 2 hours). Remove cubes from trays. Place in a blender container. Pour remaining 1 cup milk over cubes. Cover and blend until slushy, stopping to scrape blender sides as necessary until blended. Add banana. Blend until slushy. Serve immediately.

Preparation/Cook Time

10 minutes

Recipe Two:

Simple Mac & Cheese

Description

A simple macaroni & cheese recipe you can enjoy any time.

Ingredients

2 cups elbow macaroni

4 slices American cheese

3 tbsp butter

1/4 cup milk

Preparation

Cook pasta as directed. Strain well, but do not rinse. Return to a low flame and add cheese, butter, and milk.

Stir until cheese is completely melted or sauce is desired thickness. For thinner sauce, add milk slowly & stir.

Preparation/Cook Time:

20 minutes

Lesson Plan Two

Objectives:

The students will be creating awareness posters during food allergy awareness week that will be placed around the school. Each group will research one of the eight common food allergies and create a poster to display what the allergy is and in what foods it is found.

Procedure:

Food Allergy Awareness week usually falls around the end of April-beginning of May. During this week, food allergy organizations, television stations, newspapers and ads in the Internet make people aware that food allergies are real but can be controlled. In the past, I have had the mother of a food allergic child in my classroom come in on the first day of this week to kick off the celebration of the fact that we are keeping our classroom and school building ""safe"" for food allergic students. The parent has brought in a movie from the Arthur series by PBS called ""Binky Goes Nuts!"" This cartoon clearly shows what it is like for a child with a peanut allergy and what can happen because of eating the food that they are allergic too. Although approved for kids to watch, I always send home a permission slip prior to the movie because the content is a little scary for young viewers. When I say this, I am not insinuating the actual viewing of the cartoon is scary, but when Binky has an allergic reaction he is sent to the hospital and given many tests. For some kids just the sight of hospitals, doctors, needles and signs of distress are scary. After viewing the movie, the students are asked to fill out a comprehension worksheet recording what they had learned. After the students complete this worksheet it is discussed as a class with either me or the parent leading it. This has been very successful in the past and I plan to continue using the video as a teaching tool even if I do not have a child in my class with a food allergy.

At the end of the video it talks about the eight most common food allergies. They are; shell fish, fish, soy, milk, peanuts, tree nuts, wheat, and egg. Although the video does not go into great detail about each of these food allergies, I think that it is important for the students to be aware of them and how to deal with it if they ever develop the allergy, or if they come into contact with someone who has the allergy.

I will split the class into eight groups with about 3-4 students per group. Each of the groups will be given one of the food allergies to conduct research on and as a product will be developing an awareness poster. This poster needs to be colorful, bright, large, and appropriate to be hung in and around the school building.

Assessment:

After viewing the video, the students will be asked a serious of comprehension questions to ensure understanding. These are, What happened to Binky when he ate food in it that contained a nut? What does Binky''s mother need to do every time they are in the supermarket before they purchase an item? Binky finds out that there is another student in his school with a food allergy, how does he feel after talking with her?, Do you know anyone with an allergy and if so, what are you doing to make sure they stay safe in your classroom or at your home?

In order to get full credit for the awareness poster, it must include the following information: students names, name of the food allergy, list of food that contains this allergy, and three interesting things about this food that causes an allergy. The students need to work together to produce the poster and all materials will be supplied by the teacher or they may bring in things from home if they wish.

Lesson Plan Three

Objectives:

The students will be creating a class book that will detail what it is like to have a food allergic child in their class and how to keep that child safe. This book will be published by the Student Treasure publishing company and will be available for purchase for those interested.

Procedure:

As a culminating activity for this unit, the students will be making a book that will illustrate their understanding of the material presented. Each student will be given one page in the book where they will display their work in a way which is conducive to their learning style. For example, if a student likes to write in a letter format, then he/she can write a letter to a friend explaining the information. Or, if a student enjoys writing poetry or songs, they can express themselves in this way too.

To begin this project, the students and I will make a list of the topics which were presented in the unit. The students will then pick one of the topics and create a web or another form of brainstorming activity where they write down all the details that will help them write their page in the book. Next, the students will create a first draft, conference with me, and then eventually complete a finished copy which will be professionally published.

Realizing that the brainstorming part of writing is sometimes the most difficult for the kids, I will list here some questions that can help you to get the students started in their thinking process. What are food allergies? How does a person develop a food allergy? What are foods that commonly cause allergic reactions? What happens to our body when we have a reaction? How do we treat the symptoms of an allergic reaction? Can we prevent food allergies? How can we be safe with allergies?

After the students have brainstormed the ideas that they would like to write about, they will use the writing process to write a rough draft, and then ultimately a final copy. How you do this in your classroom is up to you, but I recommend going through many drafts with the students so that not only are they becoming an expert in the content, but having an active role in the writing process as well.

Assessment:

At the end of the series of lessons, a hardbound book will be published and able to be purchased by the students and their families.

Appendix

AcommodationsAllergenAllergic reactionAllergyAnaphylaxisAntihistamineAwarenessCalmEggBinephrineFishHivesInderanceInterventionInteleranceKikNutPenutPenutPenutReactionReact	Vocabulary Words
AllergenAllergic reactionAllergyAnaphylaxisAntihistamineAwarenessCalmEggEjnephrineFishHivesInterventionInterventionItchinessMikPanutPenutPenutPenutReactionSafety	Accommodations
Allergic reactionAllergigAnaphylaxisAntihistamineAwarenessCalmEggEpinephrineFishHivesInterventionIntoleranceKithinesMikPenutPenutPenutPenutReactionSafety	Allergen
AlergyAnaphylaxisAntihistamineAwarenessCalmEggBjnephrineFishHivesIndrurentionInterventionIntoleranceMilkQuestSenutPenutPenutPenutSectionSafety	Allergic reaction
AnaphylaxisAntihistamineAwarenessCalmEggEpinephrineFishHivesInmune systemInterventionInteleranceKihinessMilkPeanutPeanutReactionSafety	Allergy
ArtihistamineAwarenessColmEggEpinephrineFishHivesInmune systemInterventionInteleranceKikQuePenutPenutPreventionRectionSafety	Anaphylaxis
AwarenessCalmEggEgnephrineFishHivesInmune systemInterventionIntoleranceKihikNutPeanutPeanutRectionSafety	Antihistamine
CalmEggEpinephrineFishHivesInmune systemInterventionItchinessMilkNutPeanutPreventionReactionSafety	Awareness
EggEpinephrineFishHivesInmune systemInterventionIntoleranceItchinessMikNutPeanutPreventionReactionSafety	Calm
EpinephrineFishHivesImmune systemInterventionIntoleranceItchinessMilkNutPeanutPreventionReactionSafety	Egg
Fish Hives Immune system Intervention Intolerance Itchiness Milk Nut Peanut Peanut Prevention Reaction	Epinephrine
HivesInmune systemInterventionIntoleranceItchinessMilkNutPeanutPreventionReactionSafety	Fish
Immune system Intervention Intolerance Itchiness Milk Nut Peanut Prevention Reaction Safety	Hives
Intervention Intolerance Itchiness Milk Nut Peanut Prevention Reaction Safety	Immune system
Intolerance Itchiness Milk Nut Peanut Prevention Reaction Safety	Intervention
Itchiness Milk Nut Peanut Prevention Reaction	Intolerance
Milk Nut Peanut Prevention Reaction Safety	Itchiness
Nut Peanut Prevention Reaction Safety	Milk
Peanut Prevention Reaction Safety	Nut
Prevention Reaction Safety	Peanut
Reaction Safety	Prevention
Safety	Reaction
	Safety
Shellfish	Shellfish

Soy
Suffocation
Swelling
Tolerance
Wheat

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