

The Safe Food Handler, Page 4-6

Can They Handle It? - For each situation, should the worker be working?

- No** Sue has developed a sore throat with fever since coming to work.
Sore throat with a fever is one of the five symptoms of foodborne illness and so the worker should be excluded from working in the establishment.
- Yes** Cindy has itchy eyes and a runny nose.
Itchy eyes and a runny nose are not symptoms of foodborne illness so Cindy would be able to work. However, each time Cindy wipes her eyes or her nose, she must properly wash her hands for 20 seconds using warm water, soap, and drying with a paper towel.
- No** Tom vomited several times before coming to work.
Tom cannot work because vomiting is a symptom of foodborne illness. Tom can return to work once the vomiting has stopped. If a medical professional determines that there is another reason for Tom's vomiting that is not related to foodborne illness, Tom can work as long as he presents proper medical documentation. If the worker was a pregnant female, the vomiting would be determined to be due to morning sickness and so she could work. After each episode of vomiting, hands must be properly washed for 20 seconds using warm water, soap, and drying with a paper towel.
- No** Juanita has had a sore throat for several days but still came to work today.
Juanita cannot work because she has had a sore throat for several days and so the cause of the sore throat might be an infection. Juanita can return to work she no longer has a sore throat. If a medical professional determines that there is another reason for Juanita's sore throat that is not related to foodborne illness, she can work as long as she presents proper medical documentation.
- No** Rhonda has made several trips to the bathroom because she has diarrhea.
Rhonda cannot work because diarrhea is a symptom of foodborne illness. Rhonda can return to work once the diarrhea has stopped. If a medical professional determines that there is another reason for her diarrhea that is not related to foodborne illness, Rhonda can work as long as she presents proper medical documentation. After each episode of diarrhea, hands must be properly washed for 20 seconds using warm water, soap, and drying with a paper towel.
- Yes** Paul has been coughing all morning.
Paul can work because coughing is not a symptom of foodborne illness. Each time Paul coughs he must be sure to not contaminate food. If he should touch his mouth, his hands must be properly washed for at least 20 seconds using warm water, soap, and dried with a paper towel.

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Answer Key

What Did Karen Do Wrong? - Karen is washing her hands after handling raw chicken. Mark an "X" next to each step that Karen did *not* properly follow.

- Wrong** Karen wets her hands with warm running water at the produce sink.
Wrong Karen puts dish detergent on her hands and lathers up.
Right Karen scrubs her hands for 20 seconds.
Right Karen rinses them thoroughly under running water.
Right Karen dries her hands using a paper towel.

For each step that Karen did not properly follow, what should she have done?

Karen should have washed her hands in a handwash sink and not the produce sink. Washing hands in the produce sink could contaminate the sink with harmful microorganisms and so subsequently contaminate any food that is prepared in that sink. Produce sinks must be washed, rinsed, and sanitized after each use as they are food-contact surfaces. Karen must use handsoap to wash her hands rather than detergent. Dish detergent is harsher than is handsoap and so could result in excessive drying of the skin. When washing dishes with detergent, rubber gloves should be worn to protect the hands.

Check Their Hands - What must each of the following workers do before they begin handling food?

Maria – she has polished nails

Maria cannot work until she removes the polish from her nails. Nail polish could serve as a physical hazard.

Janine – she has long nails

Janine cannot work until she trims her nails. All workers must have short, unpolished nails. Broken nails could serve as a physical hazard.

Samantha – she has short nails

She can work as short nails are easy to clean.

Bob –he has a sore on the top of his hand

Bob must bandage his sore and then wear single-use, non-latex plastic gloves while he is handling exposed food, single-use articles, cleaned and sanitized dishware, and clean linens.

What Did Sue Do Right? - Before going to work, Sue took a shower, trimmed her fingernails, and put on a fresh coat of nail polish. She then put on her bracelet, a watch, and her clean clothes, and went to work. What did Sue do right and what did she do wrong?

Right

Sue took a shower

Sue trimmed her nails

Sue put on her clean clothes

Wrong

Sue put on a fresh coat of nail polish

Sue put on her bracelet and a watch

Test Your Knowledge - True or False

- True** Jewelry should *not* be worn when handling food.
*Jewelry cannot be worn on hands and forearms. The only exception is that a plain wedding band can be worn. Plain wedding bands cannot include gemstones. Some school districts prohibit wearing earrings and necklaces. **If a medical alert bracelet is worn around the neck, the chain onto which it is attached must be long enough to tuck it into the shirt. Earrings and necklaces can fall off into food and serve as a physical hazard. They also could get caught in equipment during work and cause a physical injury to the wearer.*
- False** Nail polish and false fingernails can be worn when handling food if single-use gloves are worn.
Nail polish and false fingernails can serve as a physical hazard so cannot be worn when handling food, cleaned and sanitized dishware, clean linens, and single-use articles.
- True** Bathe or shower before coming to work each day.
Workers must be clean before coming to work.
- False** After washing your hands, rinse them under cool water.
Workers must rinse their hands under water that is at 100°F or hotter. Water at this temperature allows for better lathering of soap and so better washing of hands. Hot water should not be used to wash hands as it can cause hands to dry out.
- True** You can contaminate food if you touch it after sneezing into your hands.
- True** Wash your hands each time you touch your face or hair.
- True** A dirty apron could be a source of harmful microorganisms.

Purchasing and Receiving, Page 9

Accept Or Reject - Mark with a “✓” which of the following foods should be accepted and with an “✗” if the food should be rejected.

- Reject** Ten pound package of ground beef that is gray in color.
Ground beef must be cherry red in color. Gray beef is a sign that the meat is old or possibly has been temperature-abused.
- Reject** Two cartons of shell eggs that are at 50°F.
Shell eggs must be at 45°F or colder when received. Liquid pasteurized eggs must be at 41°F or colder when received.
- Reject** 25-pound bag of flour with a small tear in the bottom corner
A small tear in a bag could serve as an opening for insects or rodents to enter the product. Insects and rodents carry pathogens on their bodies and so could contaminate the food. Foods that are in paper-type packaging should be stored in a durable, food-grade container to prevent tearing or contamination during storage. If food is removed from its original packaging and stored in a container, the container must be labeled with the common name of the food on the side as to the contents inside the container.
- Accept** Case of canned corn, one can is slightly dented but the dent is not on the seam
Cans can be accepted if the dent is shallow and not on a seam. There are usually three seams for most canned foods – one on the sidewall, one where the lid meets the sidewall, and one where the bottom meets the sidewall. Sharp dents or dents on seams can create small pin holes. Bacteria and other contaminants can enter the food through these small pinholes.
- Reject** Two, one-gallon containers of milk that have a sell-by date of yesterday
Foods cannot be served in school foodservice past the expiration date that is stamped on the side on the packaging.
- Reject** Frozen pizzas that have thawed completely.
All frozen food must come in frozen. Frozen foods that are thawed cannot be accepted because thawing is a sign of temperature abuse. While the temperature might never have increased to above 41°F, one cannot be certain of this so all thawed frozen foods must be rejected.
- Accept** Packaged lettuce that is in a clean bag that is labeled

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Test Your Knowledge - True or False

- True** Shell eggs that are at 45°F are safe to accept.
- False** You can accept dented cans as long as the dent is only on the seam.
Dents can only be on the body of the can, not the seam or where the top or bottom meets the sidewall. Also, the dent must be shallow and not sharp. Sharp dents can have pinholes, which will allow bacteria and other external contaminants to get into the food and contaminate it.
- False** Meat that is brown in color is okay to accept because it will be cooked.
Food must be cherry red in color and must be at 41°F or colder. Brown meat is a sign that the meat is old or possibly temperature-abused.
- False** Check the temperature of every carton of milk before putting into storage.
It is not practical to check the temperature of every carton of milk, therefore, one should randomly select one carton of milk that is on the outside of the delivery crate. The carton must be opened and the temperature measured. This milk does not need to be thrown out. It cannot be served as a beverage but it can be used in cooking.
- True** If a frozen food is rock hard, it can be put in the freezer.
- True** Watermarks on a container of frozen food is a sign of temperature-abuse.

Storage, Page 15-18

What Is the Correct Storage Temperature? - Record the proper storage temperature (°F) for each food item in the space provided.

- 41°F** Individual cartons of milk
Once displayed on a serving line, the milk must be used within three days. However, if stored unopened, in the kitchen, can be saved until the sell-by date.
- 41°F** Fresh chicken pieces
- 41°F** Chopped lettuce
All cut produce must be stored at 41°F or colder
- 0°F** Precooked frozen beef patties
- 50-70°F** Cans of soup
Once opened must be used within three days because opened cans of soup are classified as a leftover.

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Answer Key

- 41°F** Fresh ground turkey
Shell eggs can be stored at 45°F or colder
- 50-70°F** Bag of flour
Once received put into a food-grade container to prevent exposure to moisture, dirt, and insects. Opened bags of flour and other dry goods do not need to be used within three days, they can be used within a timeframe outlined on a storage shelf-life chart.
- 50-70°F** Whole apples
Uncut produce can be stored at room temperature or below
- 0°F** Frozen pizza
Frozen foods must be kept frozen until before preparation. If pizza thaws it can be refrozen as long as the temperature is not more than 41°F. However, each time a food is thawed and refrozen, the quality of the food decreases.
- 50-70°F** Commercially processed brownies
Once the package is opened, all of the brownies must be used within three days. The only exception would be if each brownie was individual packaged then they would not need to be used within three days.
- 50-70°F** Canned fruit cocktail
Once opened, store at 41°F or colder
- 41°F** Cut bananas
Cut produce must be stored at 41°F or colder
- 41°F** Tuna salad made in-house
Must be used within three days of preparation

What's Wrong? - Describe what Janet did wrong.

A shipment was delivered to Hilltop Elementary in early May. Janet, who was in charge of receiving, inspected the shipment and immediately began storing the items. She loaded a case of sour cream on the dolly and wheeled it over to the reach-in refrigerator. When she opened the refrigerator, she noticed that it was full; however, she did find a place for the sour cream on the top shelf next to several packages of fresh ground beef.

Next, she put several cases of fresh ground turkey in the walk-in refrigerator. She noticed that the temperature on the outside of the walk-in was 39°F. As Janet moved inside, she bumped into a hot stockpot of chili that was on the floor. She moved the chili over and made a space on the floor next to the door for the ground turkey.

Janet returned to the receiving area and loaded several cases of pasta on the dolly. She stacked the boxes on shelves in the dry storeroom and gave a quick glance at the thermometer in the dry storage room, which was 90°F. When she was finished stacking the boxes, Janet returned the dolly to the receiving area.

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Janet stored the sour cream next to the fresh ground beef – ready-to-eat (RTE) foods should always be stored above raw, non RTE foods. It must be moved to another shelf so that it is below the sour cream.

Stockpot of chili was cooling on the floor – the chili should have been transferred to shallow containers, loosely covered, and put on a shelf at least six inches off the floor. The stockpot should also be stored above raw, non RTE foods. Cooling foods must be chilled to 41°F or colder within four hours.

Janet stored the ground turkey on the floor – food must be stored at least six inches off the floor. If the ground turkey cannot be stored below other raw, non RTE foods then it must be stored in a deep container (to catch drip) and completely separated from other foods.

She put food in the storage room that was at 90°F. The dry storeroom must be between 50°F and 70°F. The temperature of the dry storeroom must be checked once a month and recorded on one of the weekly inspection forms.

Organize this Refrigerator - Organize your refrigerator so that each food is protected from cross-contamination. To help you do so, identify which of the following foods are “**RAW**” or ready-to-eat “**RTE**”. Then organize all foods in the refrigerator.

Raw	Ground turkey	RTE	Fresh tomatoes
RTE	Chopped lettuce	RTE	Tuna salad
Raw	Shell eggs	RTE	American cheese slices
RTE	Leftover spaghetti and meat sauce	Raw	Raw chicken pieces

- *Ready-to-eat (RTE) foods can be stored in any way in the refrigerator as long as they are always stored above raw, non RTE foods.*
- *Raw, non RTE foods that have different endpoint cooking temperatures must be physically separated so that there is no possibility of cross-contamination. Therefore, one needs to identify the endpoint cooking temperature of the raw foods:*
 - *Shell eggs (155°F because all foods in schools are hot-held)*
 - *Ground turkey (165°F)*
 - *Raw chicken (165°F)*
- *All of these can be stored on the same shelf but must be stored in deep containers that will contain any drip.*
- *It would be best to store the shell eggs over the chicken and turkey as shell eggs usually come in open pallets.*

Test Your Knowledge - True or False

True You must store deliveries immediately after you have inspected them.

True You must check the temperatures of all refrigerators each day.
The temperature of all refrigerators must be checked seven days a week and the results recorded on the Daily Refrigeration Inspection form. If the temperature is

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not checked on Saturday or Sunday, a line must be drawn through the form to indicate that the temperature was not checked.

- True** You must store foods that are the oldest in the front and the newer foods in the back.
Old must be stored in the front and the new in the back. During a class ask what method of first-in, first-out (FIFO) is being used as there are many variations.
- False** Leftover chili must be used within four days.
Leftovers must be cooled to 41°F within four hours, properly labeled, and used within three days of preparation. If the chili was prepared on a Friday and Monday is a holiday then the chili must be thrown out.
- True** Bread that was prepared on January 6 and that is frozen must be used before February 6.
Pre-prepared bread can be frozen for up to four weeks if bread is listed on the pre-prepared food list that is filed in Binder 1: Menu and Recipes.
- False** All produce must be washed before storage.
Uncut produce must be washed under cool water before preparation but not before storage. Never use sanitizer or soap. Precut produce does not need to be washed before preparation/service as it has already been cleaned. However, if one opts to wash it that is an acceptable practice.
- False** Freezer temperatures need to be checked at least once per week.
The temperature of all freezers must be checked seven days a week and the results recorded on the Daily Freezer Inspection form. If the temperature is not checked on Saturday or Sunday, a line must be drawn through the form to indicate that the temperature was not checked.
- False** You can store cleaning supplies with food as long as the container is properly labeled.
Chemicals must always be stored separately from food so that there is no accidental misuse of the chemical.
- True** Foods must be stored at least six inches above the floor.
- True** Raw meat must always be stored below cooked or ready-to-eat food.
- True** Unopened cartons of milk that are on the serving line at the end of the day must be used by the date that is stamped on the package.

Thermometers, Page 20

What's Wrong? - Describe what Samantha did wrong.

Samantha is responsible for checking the accuracy of the five metal-stem thermometers that are used to check food temperatures. She gets all of the metal-stem thermometers from their storage location. She then gets a large drinking cup and fills it with ice cubes and then cold water. She lets it get cold. She then puts all of the thermometers into the ice water. Three of the thermometers were at 32°F. Two were not. Samantha records on the Daily Production Plan that she has checked the accuracy of the thermometers. She puts the thermometers back into their storage place so that they can be used later in the day.

Samantha used ice cubes – she should have used crushed ice.

She puts all thermometers into the ice water – if she does this, she needs to make sure that the thermometers are inserted at least two inches and do not touch the side or the bottom of the cup.

Samantha did not calibrate the two thermometers that were not correct. If the thermometer is not accurate, it must be properly calibrated before using. If it cannot be calibrated, it must be thrown out.

Test Your Knowledge - True or False

- True** If measuring the temperature of ready-to-eat foods, clean but do not sanitize the probe or stem of the thermometer between each use.
Ready-to-eat foods (RTE) are generally not viewed as sources of cross-contamination as they are ready-to-eat and so should not need a heat treatment to reduce the numbers of pathogens on the food.
- False** Food is in the temperature danger zone when it is between 41°F and 145°F.
According to the School HACCP Plan, the temperature danger zone is between 41°F and 140°F. The temperature danger zone is between 41°F and 135°F according to the 2009 Food Code.
- True** Check the accuracy of all food thermometers each day before they are used.
All food thermometers must be checked for accuracy each day using either the boiling point or ice point method. If the thermometer is not accurate, then it must be calibrated to be accurate before it is used. The HACCP Plan requires that this be noted on the Daily Production Plan.
- False** The correct reading of a thermometer must be 45°F when using the ice-point method to calibrate a thermometer.
The correct reading on the thermometer must be 32°F when using the ice-point method.
- True** To accurately check the temperature, fill a container with crushed ice and then cold water. Insert the thermometer probe into the container and then check

the temperature.

Preparation, Page 24 - 25

Let's Get Cooking - Record the safe cooking temperature (°F) for each food item.

155°F	Raw beef patties	155°F	Spaghetti with meatballs
135°F	Fish sticks	135°F	Frozen pizza
155°F	Chili with ground beef	135°F	Green beans
135°F	Toasted cheese sandwich		

What's Wrong? - Describe what Sharonda did wrong.

At 12:30 p.m., Sharonda checked the temperature of a pan of spaghetti with meat sauce that had been on the serving line. It was at 140°F. She loosely covered it before putting it into the refrigerator. At 2:45 p.m., she checked the temperature and found that the pan of spaghetti with meat sauce was at 86°F. The next day, Sharonda pulled out the pan of spaghetti and reheated it to 165°F before putting it onto the serving line.

Sharonda needed to throw out the spaghetti sauce because it was not at 70°F within two hours. Most school foodservice workers will leave within one to two hours after the last child is served, therefore, cooled food must be at 70°F before they leave. If it is not at this temperature, it must be discarded. Also, Sharonda should have divided the spaghetti sauce into smaller containers so that it would cool faster or she could have put the pan in an ice water bath.

Sharonda reheated the spaghetti with meat sauce even though it had not been properly cooled. The spaghetti should have been thrown out.

What's Wrong? - Describe what Ann did wrong.

Ann is responsible for taking the temperature of all foods before they are put on the serving line. Lasagna is being served that day. At 10:30 a.m. before she removes the lasagna from the oven, she checks its temperature using an oven thermometer. The reading is over 150°F so Ann pulls it out of the oven and puts it into a hot cabinet. She notes 150°F on the daily production sheet. At 11:00 a.m. she checks the temperature of the lasagna with a metal-stemmed thermometer before putting it on the serving line. It is at 132°F. Ann figures that only thirty minutes has passed so she puts the lasagna on the serving line.

Ann used an oven thermometer to check the temperature. She should have used a metal-stem or other thermometer that could read temperatures between 0°F and 220°F.

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Lasagna must be cooked to at least 165°F or hotter, because it is a casserole-type food. Ann should not have put it into the hot cabinet until it had reached 165°F or hotter. The lasagna is at 132°F and no food that is not at proper temperature can be put onto the serving line. She should have reheated it or thrown it out. The corrective action for foods that are being hot-held is: hot foods that are not at proper temperatures, must be reheated to 165°F or hotter for fifteen seconds if the temperature is below 140°F and the last temperature measurement was 140°F or higher and taken within the last two hours.

Test Your Knowledge - True or False

- False** Cook turkey to 155°F or hotter for fifteen seconds to make it safe to eat.
Turkey must be cooked to 165°F or hotter. The endpoint cooking temperature must be noted on the standardized recipe or procedure as this is a critical control point for potentially hazardous food.
- False** Cook beef hamburger patties to 145°F or hotter for fifteen seconds to make them safe to eat.
Ground beef must be cooked to 155°F or hotter. The endpoint cooking temperature must be noted on the standardized recipe or procedure as this is a critical control point for potentially hazardous food.
- True** Cutting meat into small pieces is one way to cool it properly.
- False** Immersing frozen food under warm running water is a safe way to thaw food.
Food must be under running water that is at 70°F or colder, which is cold.
- True** Bacteria multiply most rapidly at room temperature.
- False** Leftover casseroles should be reheated to at least 130°F.
Casseroles must be reheated to 165°F or hotter. Casseroles that are prepared in advance and that have been refrigerated must be used within three days.
- False** Tightly cover all foods that are being cooled before putting them in the refrigerator.
Foods that are cooling must be uncovered or loosely covered during the cooling process. Once cooled, the food must be tightly covered. All other foods that are in the refrigerator must be tightly covered.

Service, Page 28 - 29

To Re-serve or Not to Re-serve? - Which of the following foods can be safely re-served?

- No** Ice cream bar sold to a student but then returned to the cashier after leaving the serving line.
Once the student is past the cashier, food cannot be recovered or re-served.
- Yes** Carton of milk served to an elementary school child who says that they do not want it before leaving the serving line
If the milk has not passed the cashier, it can be recovered but not re-served.
- Yes** Bag of chips that a student puts on his tray but has no money to pay for it so gives it back to the cashier before leaving the serving line.
Commercially packaged food can be recovered as long as the food is recovered while the student is at the serving line and only non-potentially hazardous foods can be re-served. If the student has passed the cashier, no food can be recovered or re-served.
- No** Uncovered bowl of salad that a student put on the tray but decides they do not want it when they get to the cashier
If the salad is not commercially packaged, then it cannot be recovered and re-served. If it is commercially packaged, it can be recovered as long as the student has not gone past the cashier. It cannot be re-served if classified as a potentially hazardous food.
- No** Bag of pretzels that a student bought but returned to the cashier cashier after leaving the serving line.
No food can be recovered and re-served once the student has past the cashier.
- No** Brownies baked in the operation that a student buys but then wants to return to the cashier in exchange for cookies.
Only commercially packaged foods can be recovered and re-served, if the student has not passed the cashier.

What's Wrong? - Describe what Mary and Sharon did wrong.

Mary and Sharon are working the serving line at Haysbrook Middle School. Mary is responsible for the cash register and Sharon for serving food. Two students came through the line and Sharon gave them the meal of the day – baked chicken, mashed potatoes, and green beans. One of the students decided that he did not want it and wanted a hamburger instead so he gave his food back to Sharon. She took it and served it to the student who was behind him. At the cash register, one student decided that he did not want the chips that he put on his tray and Mary let him return the chips. Later on a student came back up to Mary and said that they were not going to drink their milk so that she could give it to somebody else. Mary took it and threw it out.

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Sharon should not have re-reserved the meal of the day (baked chicken, mashed potatoes, and green beans) because it was not packaged. Only commercially packaged foods that are in good condition can be re-reserved.

Test Your Knowledge - True or False

- True** If food is not held at the proper temperature, those who eat it could get sick.
- True** Food being held at room temperature is in the temperature danger zone.
- True** A intact bag of chips that a student puts on their tray can be returned if they have not passed the cashier
- False** Once milk is served and the student goes to the dining area, it cannot be returned to the cashier or collected for service to others.
Commercially packaged food can be recovered and re-served as long as the food is recovered while the student is at the serving line. If the student has passed the cashier, then the milk can be recovered but not re-served.
- False** Tongs or hands can be used to dispense ice.
Using tongs or hands could contaminate ice so an ice scoop must be used to dispense ice.

Sanitation, Page 32 - 33

Food Contact Surface or Not? - Identify items that are food-contact surfaces “FCS” and place an “X” next to items that are non-food contact surfaces “non-FCS”. FCS items need to be both cleaned and sanitized.,

- | | |
|---------------------------|--------------------------------------|
| FCS stockpots | X gaskets on the refrigerator |
| FCS plates | X trashcans |
| FCS cutting boards | FCS tables in the dining area |
| X walls | X base of the mixer |
| FCS forks | FCS baking sheets |
| X floors | |

Food-contact surfaces must be washed, rinsed, and sanitized between uses. Non-food-contact surfaces only need to be washed and rinsed.

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What's Wrong? - Describe what Sarah did wrong.

Sarah is cutting up raw chicken before cooking them today for lunch. After finishing, she rinses the knife in the hand sink and dries it with a dishtowel. Sarah's manager tells her that Sue is not coming in because she is sick so she will have to chop up lettuce for salads. Sarah takes the knife she used with the chicken dips it into a sanitizing solution and then uses it to chop lettuce for salads. While making salads, the manager tells Sarah that the chicken needs to be cut into small pieces so she stops chopping lettuce and cubes the chicken. After finishing, she returns to chopping the lettuce for the day.

Sarah rinsed the knife in the handsink. It should have been washed, rinsed, and sanitized in a three-compartment sink or put into a dish machine to clean.

Sarah did not wash, rinse, and sanitized the knife after cutting the chicken and before chopping lettuce – both times. The knife is a food-contact surface.

Sarah used a dish towel to dry the knife – she should have let the knife air-dry. A dish towel could be contaminated.

Sarah did not wash the knife before dipping it into sanitizing solution – sanitizers do not work on unclean surfaces.

Test Your Knowledge - True or False

- False** Surfaces must be sanitized before they can be cleaned.
Sanitizer only works on a properly cleaned and rinsed surface. All food-contact surfaces must be washed, rinsed, and sanitized, whereas, non-food-contact surfaces only need to be washed and rinsed.
- False** Cleaning reduces the number of microorganisms on a surface to a safe level.
Cleaning removes dirt and debris; proper sanitizing reduces the number of microorganisms on a surface. Sanitizing is only effective on a properly cleaned and rinsed surface.
- True** The exterior of a refrigerator is a non-food contact surface so it needs to be cleaned but not sanitized.
- False** A chlorine sanitizing solution must be at least 100 ppm to be safe to use.
A chlorine sanitizing solution must be at least 50 ppm.
- False** After cleaning and sanitizing items, dry with a clean cloth.
Items should be air-dried and not dried with a clean cloth towel. Items must also be completely dried before putting them into storage. All cleaned and sanitized items must be stored at least six inches from the floor.
- True** Use a test kit to check the concentration of chemical sanitizer in a three-compartment sink.
The proper test kit must be used – a chlorine test kit to measure chlorine; a quat kit to measure quats; and an iodine kit to measure iodine.

True Material Safety Data Sheets (MSDS) provide information about hazardous chemicals.

True A slicer is a food-contact surface so it must be cleaned and sanitized.

Integrated Pest Management, Page 36

What's Wrong? – Describe what Ken did wrong.

Ken opened up the kitchen on Monday and noticed what looked like mouse droppings in the storeroom. He also noticed a few cockroaches near the garbage can, which was not removed for the weekend. Ken calls maintenance to have them put in mouse traps but decides to treat the cockroaches himself. He takes a can of Raid and sprays it all over the garbage can and in the area.

Ken sprayed with Raid. He should not be applying any pesticides. Only professionals should spray the area. There also needs to be a 72-hour notice to parents and guardians specifying that spraying will take place.

What's Wrong? – Describe what likely caused this problem. How should it be corrected? How can Ken prevent it from occurring again?

While Ken was taking inventory of supplies in the storeroom, he finds beetles crawling on the floor near one storage rack. He traces them back to nearby bags of flour stacked on the floor. The two bottom bags have holes and they heavily infested with beetles.

Most likely this problem was caused because Ken did not inspect the items when they were delivered. Discarding the infested bags in the trash and cleaning up the storage area can correct the problem. This can be prevented by placing items in storage containers and routinely checking the area for signs of pest activity (like spotting the beetles).

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Answer Key

Test Your Knowledge - True or False

- T** Food items such as flour should be stored in their original containers.
Food items such as flour may also be stored in properly labeled bulk containers.
- T** Garbage cans in work areas should have their lids on at all times during work hours.
- T** Never store pesticides in anything other than their original containers.
- F** The best control for stored food pests is monthly spraying of storage areas.
The best control is prevention. Inspect all incoming items for the presence of pests, throw away and clean up all spilled or contaminated items properly, and keep the grounds clean.
- F** Bags of flour and rice that are passed their expiration date should be mixed with new stocks when they arrive.
Foods that are past-dated should be thrown out. All incoming product should be inspected for pests.

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