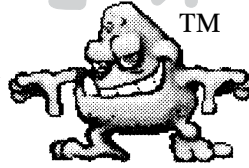




# FOOD FIESTA

## “The BAC Attack”



### Leader Notes

#### Target Audience

- Third-grade students
- Designed for use in the classroom or nonformal group settings

#### Minimum Time Needed

- 20 minutes for activity one
- 10 minutes for activity two (Designed for 10-15 students)

#### Skill Integration

- Health
- Science/microbiology
- Sequencing
- Conceptual thinking

#### Physical Arrangements

- One table

#### Assistance

- One adult or teen volunteer to play the “Bac” character using the BAC! puppet

#### Materials

- Activity one
- “BAC!” puppet (available through Website [www.fightbac.org/store\\_items.cfm](http://www.fightbac.org/store_items.cfm))

### Objectives

Participants will learn the following:

- Understand the importance of handwashing
- Know how germs are spread
- Understand the connection between germs and potential illness, and how handwashing serves as a preventive measure
- Learn proper technique for washing hands

### Background

We live in an exciting world full of a variety of things to touch, smell and taste. All of these objects are covered with germs. We cannot see germs, but they are everywhere: on our hands, in our mouths and on everything we touch. From books, backpacks, doorknobs to hands — there is no escaping germs!

Not all germs are bad; however, certain germs that get into our bodies can make our throat hurt, our stomach sick or give us a cold. We get these germs by touching objects where the germs are living, then by putting our fingers or hands in our mouth or eyes. Germs also can come into our bodies through cuts and scrapes. We share germs by coughing, sneezing and when we use someone else’s plate, cup, fork or spoon.

How can we stop germs from spreading and making us sick?





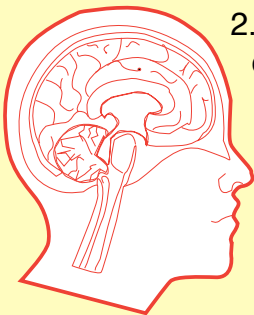
- Fluorescent lotion
- Posters
- Word Search puzzle
- Black light

### Activity two

1 cup flour

## Critical Thinking

1. Ask each student to think about what a germ might look like. What does it do all day? How does it act?



2. Provide paper or poster board and markers or crayons for each student to draw a picture of a “germ.”

3. Stand in a circle with each student holding a germ picture. Ask each child to go to the center of the circle and take up to 30 seconds to “act out” how he or she thinks germs act.

4. While in a circle, throw up a handful of confetti. Ask students how many got confetti on them. Relate this activity to how germs are spread.

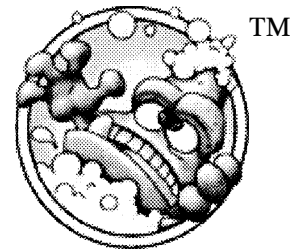
5. After using the special lotion, ask two students to go wash their hands, but just use water. Check them under the black lights. Are there still germs present? If so, why? How does soap help us get rid of germs?

We can get rid of most germs by washing our hands the right way. We can also cough into our shoulder rather than our hands so that we don't share our germs with our friends.

Everyone comes in contact with germs everyday. But taking the proper precautions — especially proper handwashing — can greatly reduce the spread of germs among classmates, friends and family members.

## Handwashing 101

Handwashing is the single most important means of preventing the spread of germs and diseases. It is important for children and adults to learn and understand when and how to wash their hands to prevent the spread of germs and disease.



### When to Wash Your Hands

- Before eating
- After using the bathroom
- After playing
- After handling pets
- When hands are very dirty or do not feel clean
- Before handling or preparing food
- Before taking medicine
- After blowing or wiping nose
- After coughing
- After taking out the garbage
- Before making a snack
- After handling money

### How to Wash Your Hands

- Always use warm, running water and soap.
- Wet the hands and apply soap to hands.
- Rub hands together fast (vigorously) until a soapy lather appears; then continue rubbing your hands together for at least 20 seconds. Be sure to scrub between your fingers, under your fingernails, the tops of your hands, including your wrists, and the palms of your hands.
- Rinse hands under warm running water. Leave the water running while drying hands.

6. Make a list of more ways to help prevent the spreading of germs.

7. Have students write their own poem, song or story to use in telling others about proper handwashing.

8. Explore how soap works with water to get rid of germs. Look soap up in the encyclopedia or on the Internet, and report to the class.

### Additional Resources

The following sources offer additional information on teaching health/science concepts and resources on handwashing and food safety.

### Internet

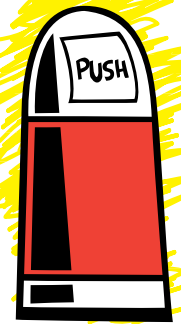
- Partnership for Food Safety Education  
[www.fightbac.org](http://www.fightbac.org)
- American Society for Microbiology  
[www.microbe.org](http://www.microbe.org)
- FDA Kids HomePage  
[www.fda.gov/oc/opacom/kids/default.htm](http://www.fda.gov/oc/opacom/kids/default.htm)
- The Nemours Foundation: Nonprofit Organization devoted to Children's Health  
[www.kidshealth.org](http://www.kidshealth.org)

- Dry hands with a clean, disposable (or single-use) towel, being careful to avoid touching the water faucet handles or towel holder with clean hands.
- Turn the faucet off using the towel between your hands and the faucet handle.
- Open door using the towel.
- Discard the used towel in trash can before leaving restroom.

Washing your hands well is one of the most important good health habits you can develop! It sounds too easy, but handwashing really works to wash away germs from your hands — even the germs you can't see when your hands "look" clean.

### Activity One

The first activity focuses on gaining an understanding of how germs are spread, and how proper handwashing can prevent spreading germs. This activity is designed using the experiential learning model of explore, apply and reflect to give students an opportunity to learn for themselves how to correctly wash their hands, and what that will mean to them in everyday life.



### Procedure

1. The presenter will begin this lesson by rubbing the fluorescent lotion "germs" on his/her hands. Then the presenter will shake hands with five of the children as they come over to the center or enter the classroom. This action will serve to "spread" the germs, but the children will be unaware of the action at this point.
2. Introduce topic and provide background information on why handwashing is important. Discuss the concept of germs and how germs are passed around.
3. Ask all the children to shake hands with the students beside them.
4. Present the story of Joey and BAC! (see page 5).





- Schoolnet  
[www.educate.org.uk](http://www.educate.org.uk)
- Lesson Plans for Educators  
<http://lessonplanZ.com>
- SuccessLink: A source for lesson plans.  
<http://successlink.org>

### Books

- *Germs Make Me Sick*. Melvin Berger, Marilyn Hafner. September, 1995.
- *Buz*. Richard Egielski. February, 1999.
- *Those Mean, Nasty, Dirty, Downright Disgusting But... Invisible Germs*. Judith Rice. Readleaf Press.
- *Germs! Germs! Germs!* (Hello Science Reader [Level 3]). Bobby Katz. Cartwheel Books, 1996.
- *I Know How We Fight Germs* (Sam's Science). Kate Rowan. Candlewick Press, Jan. 1999.



5. After completing the story, the BAC! puppet appears and conducts a dialog with the presenter.

6. Following the dialog, ask the children who shook the presenter's hand to stand up.

7. Ask the children who shook other students' hands to stand up (there should be about 15).

8. Explain that everyone who shook hands with the presenter now had "pretend germs" on their hands ... and prove it by asking those students who shook hands to go to the black light to view the germs.

9. Then ask the next group of students who shook hands with the first students to stand up, and to check for germs under the black light.



10. Ask the students to explain how they got the germs.

11. Select two of the "infected" students to wash their hands. While they are away, begin teaching the poem (on page 6) to the other students.

12. Have the students say the poem several times while "practicing" washing their hands. Repeat the lines of the poem several times with the students while pretending to wash their hands at the same time. Stress the importance of washing their hands for at least 20 seconds (the length of the poem).

13. When the two handwashers return, have them check again under the black light to see how well they did at getting rid of the germs.

14. Ask two other students who have been infected with the germs and have learned the poem to go and wash

- *Germs On Their Fingers!* Wendy Wakefield Ferrin. The Wakefield Connection. Also available in Spanish.
- *The Kid's Science Book: Creative Experiences for Hands-On Fun.* (Anonymous). June 1995.

### Other Educator Resources

Free curriculum on handwashing can be obtained from the following source:

Minnesota Dept. of Health  
Library  
717 SE Delaware Street  
Minneapolis, MN 55440

This curriculum contains three units on "Why, How, and When to Wash Hands."

"The ABC's of Clean" is a staff training video on handwashing for teachers and parents. There is also a "Hooray for Handwashing" kit, which includes a storybook, games and songs. These can be obtained from:

Soap and Detergent Assn.  
475 Park Avenue South  
New York, NY 10016

NSF International in partnership with the Partnership for Food Safety offer "The Scrub Club," a fun, interactive Web site that teaches children the proper way to wash their hands.  
[www.scrubclub.org](http://www.scrubclub.org)

their hands. Check their hands under the black lights to see if they did a better job of hand washing than the first two students who had not had the chance to practice handwashing using the correct procedure.

15. Ask for a volunteer to demonstrate and explain the correct procedure for washing hands.

16. Complete this activity with the discussion follow-up below.

17. Provide a copy of the word search puzzle for each student to take home and complete. If there is adequate time, the word search can be completed in the classroom or left with the teacher to complete at a later time.

## The Story of Joey and BAC! <sup>TM</sup>

*There once lived a germ named BAC — you know, short for bacteria.*

*His purpose in life was to make people sick.  
The sicker the better. He didn't care, not one lick.*

*BAC was on the move all over town.  
One day he was at the market,  
The next day at the park.  
He was making people sick everywhere.  
He didn't have a heart.*



*Then one day he spotted what he thought to be the perfect space.  
BAC rode home with Joey, a third-grader from Melrose Place.  
But what BAC didn't know was that Joey had learned at school that day  
How to wash his hands in just the right way, saying:*

**Soap and water, that's the way.  
You can wash the germs away.  
Keep on washing and when you do,**





## What the Research Says...

Wirthlin Worldwide, an international research firm, conducted a Handwashing Observational and Telephone Survey in August 1996 for the Bayer Corp., Pharmaceutical Division, in association with the American Society for Microbiology. Some of their findings include:

- People do not wash their hands as often as they think they do. Ninety-four percent of the respondents (1004 adults) claimed they always wash up after using the restroom. The observational survey found that only 68 percent, in fact, did so. Women washed their hands more often than men.
- Another study of 305 Detroit school children found that students who washed their hands four times a day had 24 percent fewer sick days due to respiratory illness, and 51 percent fewer days lost because of stomach upset.
- Teachers in six classrooms had children wash their hands on arrival, before lunch, after recess and before leaving for the day. The students' sick days for a 37-day period were compared to eight other classrooms that did not have scheduled handwashing. Although the handwashing reduced sick days, it had no effect on visits to the doctor, prescription or OTC drug use, or parents' loss of time at work.

**You'll get rid of germs, it's true!  
Now your hands are clean and here's why:  
Germs are down the drain, goodbye!**

*Joey was at home now, playing with his pet frogs, when his mother called him in to eat. It was his favorite — french fries and hot dogs. Now, ole BAC was getting excited. He thought this was his chance! He was sitting on Joey's hand, actually doing a little dance. But Joey remembered the poem, tucked away in his brain. So he ran to the bathroom and washed BAC right down the drain!*

## Activity Two

This additional activity is useful in helping students understand how easy it is to spread germs when they cough or sneeze and do not cover their mouths. It also demonstrates why it is better to cough or sneeze into your shoulder rather than your hands, since your hands are the main way we spread germs.

### Procedure

1. Hold one cup of flour in front of you, with the students facing you. Explain that for this activity, we will pretend that the flour is really germs.
2. Start by saying, "Watch what happens when I sneeze without covering my nose and mouth."
3. Sneeze into the flour. Ask the class, "What happened? Did you see how far the germs flew? Let's see what happens when I cover my mouth with my hand."
4. Sneeze into the flour while covering your mouth with your hand. Say to the class, "See how the germs could not go as far? When we sneeze and do not cover our mouth, we share germs with everyone around us."

- Plain hand soaps, antimicrobial hand soaps and instant hand sanitizers were evaluated for their effectiveness in reducing bacteria on the hands. Results showed that all hand soaps were effective when using a 20-second wash procedure, in reducing bacteria on the hands. In some cases, participants actually had more bacteria on their hands when they used the hand sanitizers compared to those who used soap. Therefore, instant hand sanitizers should not be used instead of hand soaps. They should only be used when soap and water are unavailable (Mary L. Miller, et al., Dairy, Food and Environmental Sanitation 14(3), 1994).

5. Ask: “But what about my hands? Did they catch all the germs? If you use your hand to cover your mouth, what should you do then?”

6. Ask: “What could you use to cover your mouth other than your hand?”

7. With your hand covered with flour, touch the student sitting next to you. Ask that child to touch the person sitting next to them. Ask the students if they can see the white flour on each other’s hands.

8. Ask: “Do you see how we are passing germs to one another? How can we stop that from happening?”

9. Remind the students that washing our hands the right way will get rid of most germs.

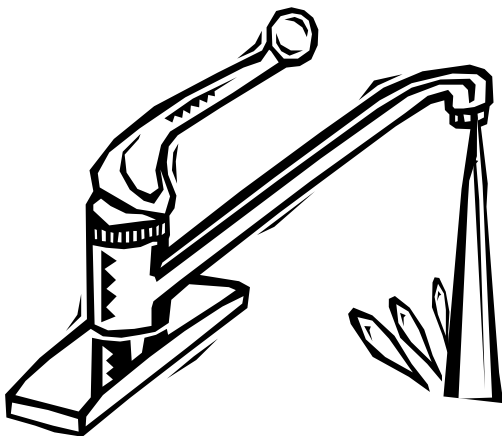
## Summary

Each student will have the opportunity to use the special lotion and check for the effectiveness of his or her hand-washing. They will learn that effective handwashing requires warm running water, soap and about 20 seconds of washing. They will also gain an understanding of the connection between germs and their health.

The second activity reinforces how easily germs are spread by coughing and sneezing, and the importance of washing your hands after coughing or sneezing into them.

## Discussion Question Follow-up

1. Why do we need to wash our hands?
2. When do we need to wash our hands?
3. Is it better to use cold water or hot water to wash our hands?





4. How long do we need to wash our hands each time to get rid of germs?
5. Do adults need to wash their hands? When?
6. What happens if we sneeze on the cookies we are taking to class, for everyone to eat after lunch?
7. How will washing our hands using the recommended procedures keep us healthier?

This project funded under an agreement with the Department of Human Services and Food and Nutrition Service, USDA.



Copyright 2006. The University of Tennessee. All rights reserved. This document may be reproduced and distributed for nonprofit educational purposes providing that credit is given to University of Tennessee Extension.

Programs in agriculture and natural resources, 4-H youth development, family and consumer sciences, and resource development. University of Tennessee Institute of Agriculture, U.S. Department of Agriculture and county governments cooperating. UT Extension provides equal opportunities in programs and employment.



## Activity Sheet

# Handwashing For a Healthier You!

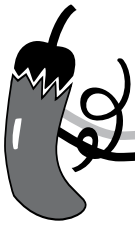
Find all the words in the Word Search below and circle. The words may go across, up, down or diagonal. The first one has been circled for you!



## Word Box

DISINFECTANT	CLEAN	PAPERTOWELS
SCRUB	SICK	WASH
GROW	SNEEZE	DIRT
COLD	HANDWASHING	NAILS
GERMS	MOUTH	FOOD
SOAP	HANDS	NOSE
WATER		





## Activity Sheet

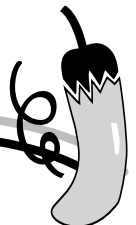
# Handwashing For a Healthier You!

Find all the words in the Word Search below and circle. The words may go across, up, down or diagonal. The first one has been circled for you!



## Word Box

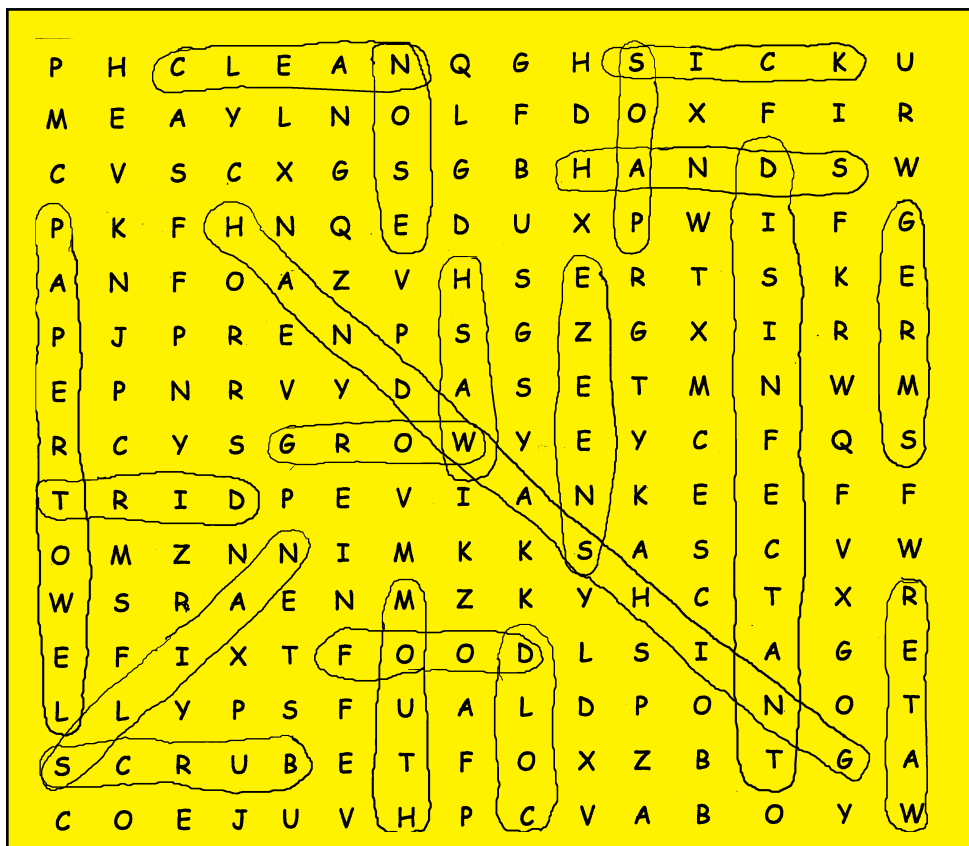
DISINFECTANT	CLEAN	PAPERTOWELS
SCRUB	SICK	WASH
GROW	SNEEZE	DIRT
COLD	HANDWASHING	NAILS
GERMS	MOUTH	FOOD
SOAP	HANDS	NOSE
WATER		





Solution

## Handwashing For a Healthier You!





## Activity Sheet

# Wash Hands Often...

- ① Before touching food
- ② After playing with pets
- ③ After playing outside
- ④ After going to the bathroom
- ⑤ After coughing or wiping your nose

# The Right Way!

- ① Use hot water and lots of soap
- ② Wet hands
- ③ Lather soap by rubbing hands together and be sure to rub around nails
- ④ Continue to rub for 20 seconds
- ⑤ Dry hands on clean paper towel, then throw it away





## Activity Sheet

# Wash Hands Often...

- ① **Before touching food**
- ② **After playing with pets**
- ③ **After playing outside**
- ④ **After going to the bathroom**
- ⑤ **After coughing or wiping your nose**

# The Right Way!

- ① **Use hot water and lots of soap**
- ② **Wet hands**
- ③ **Lather soap by rubbing hands together and be sure to rub around nails**
- ④ **Continue to rub for 20 seconds**
- ⑤ **Dry hands on clean paper towel, then throw it away**

