



Lesson #5

Lesson Plan
Revised 7/06

Germatics

Grade Level: K-2

Teachers, this is a basic lesson plan that you may modify at your discretion.

Modifications to Video: There have been several changes to the lesson plan since the video was made. This lesson plan reflects the latest changes made as a result of suggestions from teachers who have presented the lesson during the daytime program. Please continue to send us your ideas!

Overall Educational Objective: The student will be able to understand the concept of germ contamination through direct contact. The student will be able to demonstrate proper hand-washing techniques. The student will be able to comprehend the importance of hand-washing to disease prevention.

Associated Standard and CORE Objective:

- **7000-04, 7010-04, 7020-04:** The students will understand concepts related to health promotion and disease prevention.
- **7000-05:** The students will adopt behaviors to maintain personal health and safety and develop appropriate strategies to resolve conflict.

Materials List:

- 6 - Bacteria puppets
- 1 - Germs Book
- 1 - Portable black light
- - bottle of Glo-germ powder
- 1 - Master of "[Coloring Sheet](http://juniorengineering.usu.edu/lessons/germatics/pdf/germatic2.pdf)" (To be duplicated by classroom teacher, one for each student.) Coloring Sheet can be found at:<http://juniorengineering.usu.edu/lessons/germatics/pdf/germatic2.pdf>

- 1 - Fightbac script can be found on the web at:
http://www.fightbac.org/pg_first.cfm
- 1 - Fightbac script for third graders at: http://www.fightbac.org/pg_second.cfm

Pre-Lesson Activities:

1. A little glow germ goes a very long way. Students should not be able to see the powder on their hands until they put their hands under the black light. If they can, there is too much powder inside the puppets. Add only a few shakes of glo-germ inside each puppet and re-apply only as it becomes apparent that more is needed.
2. It will be helpful to have additional help to read the script, while helping students act out the play. (You may want to invite some High School Drama or Speech students to help.)



Lesson Activities:

1. Inform the students that during this lesson they will learn about germs and how to prevent sickness from these germs. Inform the students that you are going to act out a play and some students will play the role of bacteria and the others will act out ordinary every day activities. At this time ask 6 students to be the bacteria and

instruct the bacteria to act out the script as you read it. Option #2 is to give the script cards to the bacteria and have the students read their own part.

2. Read script - Please take the time to review before presenting.
3. Since each bacteria puppet is sprinkled with glo-germ, the students that held the bacteria puppets should have the glo-germ on their hands. Inform the students that the glo-germ is a germ that is not harmful to them but can be detected because it glows underneath a blacklight. To test the students for glo-germ presence students will place hands in the opening of the blacklight box. Anything that glows is glo-germ. The students that held the puppets should have glo-germ, and the students that were not bacteria should not have the glo-germ. Compare the two.
4. Have students that are positive for glo-germ shake hands with students that are negative for glo-germ. After shaking hands recheck hands for contamination.
5. Teach hand-washing song and/or poem and/or sing the alphabet song:
Song: Sung to Row,Row,Row Your Boat
Wash,-wash,-wash, your hands
With soap-and wa-ter too
Rinse-your fruits-and vege-tables
and make-them clean-for you
Put food- in the refrig-er-ator
Do-it right-away
Keep count-ers clean-where food-is prepared
And chase-those germs-away

Poem: We wash our hands to keep them clean.
The cleanest hands you've ever seen!
Use soap and water-that's the way
To chase those yucky germs away!
6. Students should sing the song once, say the poem twice, or sing the alphabet once as a timing device to ensure proper hand-washing time.
7. Have students wash their hands in bathroom but keep 2-3 students to wash hands in class as an example of how to wash thoroughly.
 - a. Extension #1: show sink with portable blacklight and discuss importance of cleaning sinks, toilets, and countertops to prevent germ contamination.
 - b. Extension #2: discuss the importance of proper food handling.
 - c. Extension #3: worksheet, read poem, sing song.

8. Call attention to the career fields that are related to this module. Discuss how students might prepare for occupations that interest them. Note the career links at the end of this lesson.
9. Give each student the coloring sheet with the song about hand-washing. Have them color the page for them to take home.
10. Allow time to clean up. At the end of the day, list any materials that are missing and tape list to outside of module box.

Definition:

- Bacteria - microscopically tiny living organisms that can cause diseases.

Please make your students aware that this lesson relates to the following:

Career Fields:

Science, Technical

Occupations:

- **Microbiologist:** Study germs like bacteria and viruses. They discover how germs make people sick and help develop medicines and vaccines which prevent deadly germs from causing death to people.

Education: At least four years of college. Most microbiologists have a Ph.D. and have studied germs for at least 10 years to obtain this degree.

- **Physician:** Evaluate, and diagnose patients whom are infected by germs.

Education: Physicians must attend a minimum of 8 years of college to prepare them for this career.

- **Lab-Technician:** Administer and obtain results of tests, which can determine if the patient is infected by germs. ex. throat culture for strep throat.

Education: Lab technicians must attend a certified training program which takes 2-4 years post- high school.

- **Health Inspector:** Inspects restaurants, grocery stores, and food industry businesses for cleanliness and proper food handling procedures.

Review Questions:

1. Can you get germs by touching someone else? (Besides cooties)
2. Why should you wash your hands?
3. When should you wash your hands?
4. How do you properly wash your hands?

5. When we are sick, how can our bad germs be passed to others? How can we prevent it?

Grades K-3

The Story of Bac For Kindergarten and First Graders

Presenter :(scary, deep voice) Once upon a time there was an ugly little germ. His real name was...B - A - C - T - E - R - I - A, but his friends called him BAC, for short.

BAC: (scraggly voice) I wish I were a nicer guy. But I am yucky and here's why: I like to hide on hands and food. I'm germy, green and very rude!

Presenter: Now, ever since he was a little germ, BAC would spend his days wandering around, finding places for himself and his friends to hide. There were lots of places for germs like BAC and his friends to hang out! Germs like the things you carry around every day, like your backpack or your food before you wash or cook it or if you forget to put it in the refrigerator. And most of all, your hands! Everybody knows that germs are everywhere!

BAC: There are places that I love: Your shoes . . . your books . . . your baseball glove! Your hands . . . the counter . . . on your food. They put me in a germy mood!

Presenter: (Stage whisper to children) Now, the one thing you may NOT know is that even though BAC and his other germy friends are everywhere it's EASY to get rid of them!

BAC: (to presenter) Wait, wait, wait don't let them know! If they find out . . . I'll have to go!

Presenter:(stage whisper) More about that later . . . (regular voice) So anyway, one day, BAC was out looking for a fun new place to hide and invite all his other germy friends over to play. He ESPECIALLY liked hanging around with children who didn't know anything about keeping their food safe from germs. He knew that if they didn't know about him, they didn't know how EASY it was to chase him away!

BAC: It's easy to get rid of me; you can do it don't you see? But many children just don't know. That's great for me so here I go!

Presenter: (stage whisper) BAC knew that if the children found out about him, they would want to get rid of him. After all, he was a GERM and no one likes GERMS! Suddenly, he saw a group of children in a kitchen. As he snuck in, it looked like they were doing lots of things that were going to make it easy for him to hide!

BAC: Oh, boy! This is gonna be GREAT!

Presenter: They didn't put their milk back in the refrigerator . . .

BAC: Yippee, Yippee I hate cold!

Presenter: They forgot to rinse their fruits and vegetables with water . . .

BAC: Dirty snacks! Just what I like!

Presenter: Oh no! They were putting their backpacks and smelly sneakers on the counter!

BAC: Oh, boy! Putting their stuff on the counter where food belongs!

Presenter: And worst of all they were about to eat WITHOUT WASHING THEIR HANDS!

BAC: Ya - ay - ay!!!

Presenter: BUT WAIT! Suddenly, the children remembered what they had learned in school that day! They started out by washing their hands . . .

BAC: Oh, no! Say it isn't so!

Presenter: Next they rinsed their fruits and vegetables with water!

BAC: Oh, no! I don't like clean snacks!

Presenter: They took their dirty stuff off the counter! They washed the counter, too!

BAC: A clean counter?! Where will I go???

Presenter: And finally, they put all of the cold food, like milk, back in the refrigerator when they were done!

BAC: Brrrrr! I feel a terrible cold coming on!!!

Presenter: All of a sudden, BAC's excitement was gone. HE HAD NOWHERE TO HIDE ANYMORE!!!

BAC: That's it for me I'm done, it's true! 'Cause now you know just what to

do. Put food away . . . clean counters, too; Rinse fruits and veggies through and through! And one last secret now I'll tell. Just wash your hands and wash them well! Soap and water do the trick. They make you clean but make me S - I - C - K . . .

Presenter: So now you know the true story of BAC! Those children had discovered that there were EASY ways to get rid of him. But they also had to remember even though they got rid of BAC, there were other germs out there too! So they made up a rhyme that they could say each time they washed their hands. Maybe you can learn it too! Say it TWO TIMES through, every time you wash your hands. That way, the germs will all go away! It goes like this: WE WASH OUR HANDS TO KEEP THEM CLEAN . . . THE CLEANEST HANDS YOU'VE EVER SEEN! USE SOAP AND WATER THAT'S THE WAY TO CHASE THOSE YUCKY GERMS AWAY!