Unit 1: Introduction to Infectious Diseases

Instructional Activities for Ages 6-9

PKIDs’ Infectious Disease Workshop

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PKIDs’ Infectious Disease Workshop
Acknowledgements

Producing this workshop has been a dream of ours since PKIDs’ inception in 1996. It has been more than two years since we began work on this project, and many people helped us reach our goal. It’s not done, because it is by nature a living document that will evolve as science makes strides in the research of infectious diseases, but it’s a great beginning.

There are people who’ve helped us whose names are not on this printed list. That omission is not deliberate, but rather from our own clumsiness in losing important pieces of paper, and we apologize.

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The authors specifically disclaim any responsibility for any liability, loss, or risk, personal or otherwise, which is incurred as a consequence, directly or indirectly, of the use and application of any of the contents of this workshop.
Introduction

PKIDs (Parents of Kids with Infectious Diseases) is a national nonprofit agency whose mission is to educate the public about infectious diseases, the methods of prevention and transmission, and the latest advances in medicine; to eliminate the social stigma borne by the infected; and to assist the families of the children living with hepatitis, HIV/AIDS, or other chronic, viral infectious diseases with emotional, financial and informational support.

Remaining true to our mission, we have designed the *Infectious Disease Workshop (IDW)*, an educational tool for people of all ages and with all levels of understanding about infectious diseases. In this workshop, you will learn about bacteria and viruses, how to prevent infections, and how to eliminate the social stigma that too often accompanies diseases such as HIV or hepatitis C.

We hope that both instructors and participants come away from this workshop feeling comfortable with their new level of education on infectious diseases.

The IDW is designed to “train-the-trainer,” providing instructors not only with background materials but also with age-appropriate activities for the participants. Instructors do not need to be professional educators to use these materials. They were designed with both educators and laypersons in mind.

The IDW is comprised of a master Instructor’s Background Text, which is divided into six units: Introduction to Infectious Diseases, Disease Prevention, Sports and Infectious Disease, Stigma and Infectious Disease, Civil Rights and Infectious Disease, and Bioterrorism and Infectious Disease.

For each unit, instructors will find fun and helpful activities for participants in five age groups: 2 to 6 years of age, 6 to 9 years of age, 9 to 12 years of age, 13 to 18 years of age and adults.

We welcome any questions, comments, or feedback you may have about the IDW or any other issue relating to infectious diseases in children.

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Dear Parents,

Our class will soon be studying infectious diseases. We will learn about what germs are and ways we can keep from spreading germs. We will also learn that people who have infectious diseases don’t have to be treated differently or singled out just because they have a disease.

The workshop we will use has been created by PKIDs (Parents of Kids with Infectious Diseases), a national nonprofit organization dedicated to supporting families touched by infectious diseases.

Your child may have questions about germs or may come home with new ideas about preventing the spread of germs. Here are a few ways you can stay informed:

View PKIDs’ website. PKIDs’ website can be found at www.pkids.org. You may also request information by calling PKIDs at 1-877-55-PKIDS.

View the instructor’s background text for the Infectious Disease Workshop (IDW). The primary purpose of this text is to provide teachers with background information on infectious diseases. It is a good text for anyone seeking general information on infectious diseases. The text provides information about specific diseases, methods of disease prevention, and civil rights for those affected by infectious disease. Visit www.pkids.org for a link to the IDW background texts in PDF format.

View descriptions of the activities we will be doing in class. Visit www.pkids.org for a link to the activities and handouts in PDF format.

The world becomes smaller every day and germs from near and far continue to threaten our health. It is extremely important to educate our young people, equipping them with prevention methods to protect their health and stop the spread of disease.

As always, please feel free to contact me with any questions!

Sincerely,
ALL ABOUT GERMS

LEVEL
Ages 6-9

OBJECTIVE
• Students will describe where germs are found.
• Students will describe ways to kill germs or prevent their transmission.

MATERIALS
All About Germs story (included).

PREP
None

INSTRUCTIONAL COMPONENTS
• Read the “All About Germs” story.
• Discuss how germs can be found everywhere (see Assessment section).

ASSESSMENT
Questions:
1. Can we see germs?
2. If we can’t see germs, does that mean they are not there? Can germs be on our hands right now?
3. What are some places germs can be found?
4. What are things we can do to keep germs from getting in our bodies?
Learning About Germs
Germs are all around us, every day.

Germs are not like animals.

They are not like plants.

A germ is something so small you can’t even see it! But even though you can’t see it, it can still get inside your body and make you sick.
Because you can’t see germs, you never know where they might be!

Germs can stick to your hands.

Germs can stick to food and countertops.

Germs can stick to noses and mouths and boo-boos.
Germs can travel through the air. Germs also travel from place to place when germy things touch other people or objects.
Germs are often found at home. There are many places in our homes where germs can hide.
Germs are in the kitchen. Sometimes they are in the food we prepare to eat.

Cooking food kills these germs. But if we don’t wash our hands after handling certain foods, we can get these germs on other food or people.
It is very important to keep cold food refrigerated. 

Cold food that is not stored in the refrigerator can grow germs that make us sick!
Sometimes germs are found on fruits and vegetables. Food should be washed or cooked before we eat it.
Sometimes we leave dirty shoes or dirty bags on countertops where food is prepared.

The germs from this dirt can get onto our countertops and into our food.
But one of the places germs like to be the most is on DIRTY HANDS. If we eat with dirty hands, we can get many different germs inside us.
Once the germs are inside us, they can make our stomachs sick. Some germs can get in our blood, too.

This is why it is very, very important to wash our hands with soap and warm water.
Washing hands is an easy way to keep germs out of your body.

Wash your hands before you eat.

Wash your hands after using the toilet.

Wash your hands after playing outside.

Wash your hands if you sneeze or cough on them. There are many germs in sneezes and coughs.
There are also many germs in blood. *Never touch another person’s blood.*

So remember — germs are very small and can’t be seen. Germs can be found on our hands and in our blood or sneezes or coughs. Washing hands is a good way to keep germs away from ourselves and a good way to stop our germs from getting to others. Soon you will learn more ways to keep germs out of your body and to stay healthy.
HOW GERMS SPREAD
Part 1

LEVEL
Ages 6-9

OBJECTIVE
• Students will recall where germs are found.
• Students will inadvertently demonstrate how germs spread.
• Students will recognize how germs spread.

MATERIALS
• Glitter or nutmeg.
• Petroleum jelly.
• Spoon, tongue blade, or other instrument for dispensing petroleum jelly.
• Small pieces of paper towel to put petroleum jelly on (1 per student).

PREP
• Place a dab of petroleum jelly on each of the small pieces of paper towel.
• Do this activity prior to doing other general classroom activities.

INSTRUCTIONAL COMPONENTS
1. Help students recall where germs can be found.
2. Hold up the glitter and explain that the glitter will represent germs.
3. Have each child smear a little bit of petroleum jelly on their hands (just a thin coating to help the glitter stick).
4. Sprinkle some glitter on each child’s hands and have them rub it on.
5. Explain that after awhile, everyone will look to see how many things the glitter has stuck to. (You may want to keep the children in one section of the room, to prevent petroleum jelly from taking over your classroom.)
6. Do other activities, then revisit this activity.
7. Have every child look for a place in the room that has glitter on it.

ASSESSMENT
1. Have students raise their hands when they have found glitter.
2. Remind them that the glitter has spread just like germs spread.
3. Ask students how the “germs” got there.
4. Ask students to recall what happens when germs get inside our bodies.
5. Ask students to recall ways to keep germs off our hands.
6. Have students wash glitter off hands.
HOW GERMS SPREAD  
Part 2

LEVEL
Ages 6-9

OBJECTIVE
• Students will recall where germs are found.
• Students will inadvertently demonstrate how germs spread.
• Students will recognize how germs spread.

MATERIALS
• Spray bottle with water in it.
• Talcum powder.
• Doll.

NOTE: When using talcum powder in the demonstration, use only a small amount. Face away from the children. Inhaling talcum powder may cause irritation, particularly in children with asthma. A doll can be used to show that airborne germs can be inhaled.

PREP
None

INSTRUCTIONAL COMPONENTS
1. Help students recall where germs can be found.
2. Hold up the spray bottle and explain that the water inside is like a sneeze or a cough.
3. Spray some water above the students. Ask students to raise their hands if they felt water. Try this from a few different angles.
4. Explain that germs can be found in sneezes and coughs and that one way they can spread from one person to another is through little droplets, just like the water.
5. Sprinkle some talcum powder on your hand and blow it into the air away from the students.
6. Ask students to observe how long the talcum powder hangs in the air and how long it takes to settle.
7. Explain that some germs are very, very small — like the powder — and can travel in the air farther and longer. We can become sick if we inhale them. Use a doll to show that a person can inhale germs from the air.

ASSESSMENT
1. Have the students recall the glitter exercise.
2. Ask them what 3 ways germs can travel between people (by touch, by droplet, or by air).
3. Ask students to recall what happens when germs get inside our bodies.
4. Ask students to think of ways to keep germs off our hands (handwashing) and out of the air (using tissues).
GERMS
Where Can They Be Found?

LEVEL
Ages 6-9

OBJECTIVE
Students will identify places where germs can be found.

MATERIALS
1. Pictures of possible germ locations from magazine, etc. (prevention suggestions):
   - Dirty hands (washed them, whether you can see the dirt or not)
   - Dirt/ground (wash hands after playing outside)
   - Animals (wash hands after touching)
   - Countertops (clean before preparing food)
   - Raw/uncooked meat/eggs (cook before eating)
   - Old/moldy food (throw out)
   - Spoiled milk (keep cold foods cold)
   - Dirty vegetables (wash before eating)
   - Blood (do not touch)
   - Personal grooming items, e.g., fingernail clippers (may have microscopic amounts of blood on them—use only one’s own grooming tools)
   - Forks, spoons (saliva or blood in saliva—don’t share)
   - Toothbrushes (saliva or blood in saliva—don’t share)
   - Hairbrushes (lice—don’t share)
   - Drinking cups/glasses (saliva or blood in saliva—don’t share)
   - Half-eaten food (saliva or blood in saliva—don’t share)
   - Sneezing, coughing (releases germs into air, cover mouth and nose to sneeze or cough)
   - Wiping nose (then touching other people or objects spreads germs, wash hands)
   - Rubbing eyes (then touching other people or objects spreads germs, wash hands)
   - Tissues (don’t touch other people’s tissues, throw yours away after using)
   - Diapers (wash hands after changing diaper)
   - Toilet (germs from body waste, wash hands after urination or defecation)
2. Tape or tacks.
3. Wall, bulletin board, or chalkboard to put pictures on.

PREP
- Find pictures of possible germ locations (one picture for each child, all different). See ideas above. If more are needed, you can duplicate some items, e.g., different kinds of old/moldy food.
- This might be a good activity to do after doing the activities describing what germs are and...
how we wash our hands.

**INSTRUCTIONAL COMPONENTS**

1. Tell students you will be discussing places where germs can be found and how we can keep those germs from getting inside our bodies.
2. Randomly pass out a picture to each child.
3. Work your way through the list. For each item:
   - Have the student come up and attach his/her picture to the board.
   - Talk about why germs can be found there.
   - Ask students what we can do to keep those germs from getting in our bodies.

**ASSESSMENT**

Are the students able to discuss/recall basic methods of disease prevention (e.g., washing hands, not touching other people’s blood)?
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