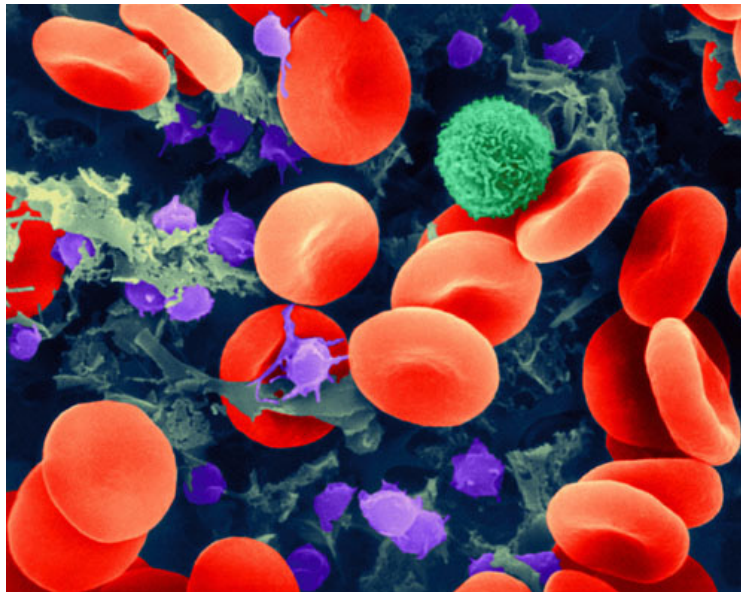


Unit 6: Bioterrorism and Infectious Diseases

Instructional Activities for Ages 9-12



PKIDs' Infectious Disease Workshop

Made possible by grants from the Northwest Health Foundation,
the Children's Vaccine Program at PATH and PKIDs.

PKIDs' Infectious Disease Workshop

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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,

BIOTERRORISM

Making an Emergency Contact List

LEVEL

Ages 9-12

OBJECTIVE

- Students will fill out emergency contact information sheet (with adult assistance if needed).
- Students will post the emergency contact information sheet in their homes for reference.
- Families of students will discuss/rehearse actions to be taken in the event of emergency.

MATERIALS

1 copy of the “Emergency Contacts” sheet for each student.



PREP

None

INSTRUCTIONAL COMPONENTS

1. Give 1 copy of the “Emergency Contacts” sheet to each student. Help them understand that every family should have an emergency phone number list of people to call if something happens to a loved one or if there is a disaster of some sort.
2. Briefly review the components of the sheet:
 - Our Family Name: put the family’s last name here.
 - Home Phone and Address: list any phone numbers for the home and the street address (no post office boxes).
 - For ambulance, fire, or police, call 911.
 - 2 spaces are provided for parent/guardian contact information.
 - 2 spaces are provided for friends/family not in same household. It is a good idea for everyone in the family to know the phone number for the out-of-town friend/relative, so that in the event of a local disaster, each family member can report in with the out-of-town friend/relative, who shares that information with all family members.
 - 1 space is provided for the number of the local health department. Anyone suspecting they have been subject to a biological attack should call this number.
 - 1 space is provided to list the location of the family’s meeting place outside the home.
3. Encourage older children to help younger children fill out the sheet and understand how and when to use the information.

ASSESSMENT

Students should be able to state the location of the emergency contact list in their home.

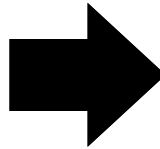
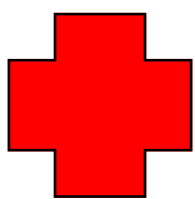
Emergency Contacts

Our Family Name: _____

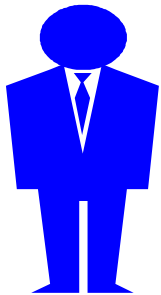
Our Home Phone: _____

Our Street Address: _____

Our Town: _____



9-1-1



NAME: _____
WORK PHONE: _____
CELL PHONE: _____



NAME: _____
WORK PHONE: _____
CELL PHONE: _____



NAME: _____
HOME PHONE: _____
WORK/CELL PHONE: _____



NAME: _____
HOME PHONE: _____
WORK/CELL PHONE: _____

LOCAL HEALTH DEPARTMENT
PHONE: _____
WEBSITE: _____

OUR FAMILY MEETING PLACE
OUTSIDE HOME: _____

BIOTERRORISM

Making A Comfort Kit

LEVEL
Age 9-12

OBJECTIVE

Students will assemble a small package of things for their own personal comfort or entertainment in the event of a disaster.

MATERIALS

- 1 handout (included with lesson) per student.
- Miscellaneous items to be provided by students and/or parents.

PREP

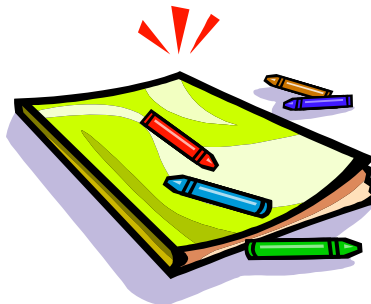
Determine storage space for kits.

INSTRUCTIONAL COMPONENTS

Send students home with handout.

ASSESSMENT

1. Students will bring completed kits to school.
2. Be sure all kits are labeled with names!



Dear Families,

In the unlikely event of a disaster (natural or man-made) occurring during school hours, I would like each student to have a “comfort kit.” This kit will be kept at school and should contain non-perishable items that will help sustain the student and relieve fear and homesickness if students are required to stay at school for an extended period. Please work with your child to construct this kit and send the completed kit to school with your child. At the end of the year, all unused kits/items will be sent home with students.

Please select items that will fit inside a 1-gallon plastic closeable bag. Some items that are not readily available can be purchased inexpensively at a dollar store (e.g., crayons, small toys). A list of items to consider might include the following:

Plastic garbage sack (to protect from moisture; can be used as a blanket)

Photo of the family

Letter from family member(s)

Non-perishable snack items, hard candy

Drinks in small, sealed containers or pouches

Coloring booklet, drawing pad, paper

Crayons, colored pencils (if they aren't already at school)

Activity/game booklet

Book, magazine, comic book

Small toy or stuffed animal

Travel-sized game

Deck of cards

Glow stick

Glo-in-the-dark stickers or decals

Don't forget to label the kit with the owner's name! Thank you for participating.

BIOTERRORISM

“Who Am I?” Identity Guessing Game

LEVEL

Ages 9-12

OBJECTIVE

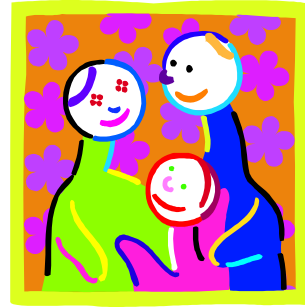
- Students will write visual descriptions of each other.
- Students will analyze descriptions of others.

MATERIALS

Paper and pencil.

PREP

None



INSTRUCTIONAL COMPONENTS

Lead the students through the description process, asking questions to help them describe their partner more accurately.

1. Place students in pairs at their tables/desks.
2. Explain that you will be doing a writing project where they will describe their partner so that somebody else could identify that person without knowing his/her name. Help students understand that it is important to be able to describe a person accurately. (This is important if they are looking for somebody in the event of a disaster, e.g., a parent at work, and must describe them over the phone.) Encourage them to use creative and specific words. Offer to write on the board any words they want to use but don't know how to spell.
3. Ask the students to write the name of the person they are describing and their own name at the top of the paper. (Make sure you know the difference!)
4. Characteristics to consider would include: gender, skin tone, hair color and texture, eyes, ears, nose, smile/dimples, teeth/bite, height.
5. You may want to let the students write first without giving them any of the above “hints” to see how detailed and descriptive they can be on their own.
6. Ask the students why it could be important to be able to describe somebody accurately in an emergency situation. (For example, they might be looking for somebody they know in a large group of people, and they might want somebody they don't know to help them look.)

ASSESSMENT

1. Have students turn in their descriptions. Select some descriptions to read out loud and ask students to guess who the mystery person is.
2. When they guess correctly, ask them how they knew it was that person. Was it easy or difficult to tell whom the person was? Why? What did we learn about describing people that could help us if we ever need help finding someone who is in a different place?

Bibliography

American Academy of Pediatrics: *Children, Terrorism, and Disasters*
www.aap.org

Association for Professionals in Infection Control and Epidemiology, Inc.: Bioterrorism
www.apic.org

Centers for Disease Control and Prevention: Public Health Emergency Preparedness and Response
www.bt.cdc.gov

Center for the Study of Bioterrorism at the St. Louis University School of Public Health
bioterrorism.slu.edu

Department of Health and Human Service: Homepage for Metropolitan Medical Response System (MMRS) information
www.mmrs.hhs.gov

Johns Hopkins Medicine: Center for Civilian Biodefense Strategies
www.hopkins-biodefense.org

Northwest Center for Public Health Practice at the University of Washington School of Public Health and Community Medicine: *Bioterrorism Training Tools; Hands-on Training for Public Health Emergencies*
healthlinks.washington.edu/nwcphp

Seattle and King County Public Health. “*Update on Bioterrorism Preparedness: The role of Public Health and health care providers.*”
www.metrokc.gov

The U.S. Army Medical Research Institute of Infectious Diseases
www.usamriid.army.mil

U.S. Army Office of the Surgeon General: The Medical NBC (Nuclear, Biological, Chemical) Online Information Server
www.nbc-med.org

U.S. Food and Drug Administration: Bioterrorism
www.fda.gov

Additional Activities and Resources for Teachers, Students, and Parents

American Red Cross. Distributes preparedness pamphlets, checklists, and coloring books. Website contains information for educators.
www.redcross.org

Chin, James E. ed. *Control of Communicable Diseases Manual*. 17th ed. Washington, DC: American Public Health Association, 2000.
Primarily focuses on the public health response to infectious diseases.

The Parents' Committee for Public Awareness. *Anthrax: A Practical Guide for Citizens—What You Should Know, What You Can Do, & How It Came to This*.
Cambridge: Harvard Perspectives Press, 2001.
Distills the most up-to-date information and compiles useful public materials so that no family, individual, employer, public institution or medical facility will have to hunt them down.

Salvucci, Angelo Jr. M.D., ed. *Biological Terrorism, Responding to the Threat: A Personal Safety Manual*. Carpinteria: Public Safety Medical, 2001.
Contains all the information necessary to protect individuals and their families in the unfortunate reality of our nation's battle with terrorism.

Tucker, Jonathan B. *Scourge: The Once and Future Threat of Smallpox*. New York: Atlantic Monthly Press, 2001.
Looks at the continuing debate over the destruction of smallpox using numerous interviews with key players to look at the political and social aspects of the disease.