





BRAIN POWER NEWS

PARENT NEWSLETTER

VOLUME 1, NUMBER 2

Meet the Scientists

Your child has been learning all about scientists. He or she watched a video highlighting the work of four prominent scientists. Each scientist explained his or her work by focusing on the steps of scientific inquiry. These steps are a systematic way of approaching a problem and include the following:

-  Observe—Check out the problem.
-  Predict—Time to make a good guess.
-  Experiment—Is your guess right? Find out by doing an experiment.
-  Conclude—Put the pieces together to figure out what's really going on.

These steps are recommended for problem solving and scientific experimentation in the National Science Education Standards.

The following chart describes the scientists that were featured in the video.

Alane Kimes, Ph.D.	Dr. Kimes works at the National Institute on Drug Abuse Research Program in Baltimore, Maryland. Her research focuses on the effects of drugs on the brain. She is interested in finding out how drug abuse changes the way the brain works, so she can find ways to help people stop using drugs.
Michael Byas-Smith, M.D.	Dr. Byas-Smith is an anesthesiologist at Emory University School of Medicine in Atlanta, Georgia. He is working with other scientists to determine whether chemical changes that take place in the brain make certain individuals more likely to become addicted to drugs.
Eric Chudler, Ph.D.	Dr. Chudler is a neurophysiologist from the University of Washington in Seattle, Washington. He is currently studying why people with Parkinson's disease experience significant pain. Dr. Chudler is conducting his research with rats and trying to understand the activity of neurons, or nerve cells, in the area of the brain affected by Parkinson's disease.
Denise Jackson, Ph.D.	Dr. Jackson is the Director of the Undergraduate Behavioral Neuroscience Program at Northeastern University in Boston, Massachusetts. She studies the effects of cocaine on unborn rats. Dr. Jackson is trying to find out how the drug affects the way the brain grows.



Science at Home

Ask your child which scientist he or she thought was working on the most interesting project in the video. Discuss with your child all the interesting things these scientists do. You can also talk about the wide variety of places where they work. If there are scientists in your family, talk about the work they do.

What Does Your Child Think?

Help your child write one sentence about the value of the work of scientists. Try to include something new that he or she has learned about scientists.

Additional Resources

National Institute on Drug Abuse (NIDA) — www.drugabuse.gov
301-443-1124

This Web site contains information about drug abuse and a section designed specifically for parents, teachers, and students. Publications and other materials are available free of charge.

National Clearinghouse for Alcohol and Drug Information (NCADI) — www.health.org
1-800-729-6686

NCADI is the world's largest resource for information and materials concerning substance abuse. Many free publications are available here.

The Why? Files — <http://whyfiles.org>

Explanations for scientific phenomena discussed in the news.

Tiner, J. *100 Scientists Who Shaped World History*. San Mateo, CA: Bluewood Books, 2000. This book talks about great men and women of science who significantly contributed to our understanding of the physical world around us.

Kramer, S. *How to Think Like a Scientist: Answering Questions by the Scientific Method*. New York, NY: HarperCollins Children's Books, 1987. This book shows how scientists use questions to learn about things. It teaches how the scientific method can help find answers to many questions people are curious about.

Kramer, S. *Hidden Worlds: Looking Through a Scientist's Microscope (Scientists in the Field)*. Boston, MA: Houghton Mifflin Co., 2003. This book shows how scientists study the world and includes many behind-the-scenes pictures of the life of a scientist.

