Act out human emotions with facial expressions. Discuss some chimpanzee facial expressions.

Objectives: Discuss the importance of primate facial expressions. Name some ways other animals express "moods" or convey messages about themselves. Describe several facial expressions of chimpanzees and talk about how chimps use these expressions.

Ages: Intermediate

Materials: 
- copies of page 11 
- slips of paper
- pen or pencil 
- chalkboard or easel paper

Subject: Science

- aggression
- anger
- boredom
- confusion
- disbelief
- disgust
- embarrassment
- fear
- frustration
- impatience
- joy
- nervousness
- pain
- sadness
- surprise

Most animals have the ability to communicate—and primates are among the greatest communicators of all. To help your kids learn about some of the ways primates communicate, try this activity.

Start by writing each of the words in the margin on a separate slip of paper. Put the slips in a sack or other container. (The kids will be using them a little later.) Then write the words again on a chalkboard or large piece of easel paper.

Next talk about some of the ways animals communicate and express messages about themselves. Explain that many primates can convey a wide variety of information to each other using facial expressions. Most other animals don't rely on facial expressions as heavily as primates do. The muscles in their faces aren't as "finely tuned" as those of primates, so their range of expressions is much more limited. But they often have other means of expressing themselves. Ask the kids if they can think of any examples. (A dog may bark if it wants to go outside, a cat may purr when it's content, and so on.)

Now ask the kids to describe some facial expressions that we—the primates known as people—often use. (We smile when we're happy or amused, raise our eyebrows when we're surprised, grimace when we taste something sour, and so on.) Explain that people have the most complex and sophisticated repertoire of expressions among the primates. But other primates, such as chimpanzees, also communicate and express themselves with a wide range of facial expressions.

To show how effective facial expressions can be in communicating attitudes, emotions, moods, and so on, have a different volunteer act out each of the words you listed earlier. Let each performer pick one of the words from the sack. Explain that the volunteers must use facial expressions to portray the word. They can also use appropriate sounds if they want to—but they aren't allowed to say words. As each volunteer acts out his or her word, have the rest of the kids try to identify which emotion or attitude the volunteer is communicating. They can narrow down their choices by referring to the list you wrote on the board.

After you've gone through all of the words listed, pass out copies of page 11. Explain that chimpanzees use a wide range of facial expressions to communicate certain messages and to express certain emotions. Chimps are also very vocal animals, and they emit particular sounds, such as whimpers, hoots, or squawks, with most of the characteristic faces they display. (All but face #2 on page 11 are usually accompanied by sounds.) Can the kids think of some typical sounds humans make that go along with certain facial expressions? (Laughter often accompanies a grin, a gasp may go along with a surprised look, screaming sometimes accompanies an expression of fear, and so on.)

Now use the following information to go over each of the chimp faces. The words in italics are the names scientists have given to the expressions.

(continued next page)
CHIMP BACKGROUND

1. Like several of the faces pictured on the page, this *open grin* has a couple of different meanings. Chimps who are either very excited or very frightened display this expression. For example, chimps who find a big supply of a favorite food may "grin" and scream loudly. So will a chimp that's being attacked by another chimp or by a predator.

2. When a chimp compresses its lips and the hair around its face bristles, the animal is not in a friendly mood! A chimp that's attacking an enemy or is otherwise showing aggressive behavior adopts this expression. Ask the kids if they've ever seen a person (such as a parent!) tighten up his or her lips in anger.

3. This *pout* often means that a chimp wants something from another chimp. For example, a chimp may whimper softly and wear this expression when it wants another chimp to groom it or share food with it. Chimps who are frustrated for one reason or another may also pout and whimper. Ask the kids if this behavior sounds familiar!

4. During play, chimps wear this *play face*. They also make characteristic grunting sounds that researchers have described as laughter.

5. A chimp who has just been attacked by a more dominant member of its group often shows this expression, called a *horizontal pout*. (Chimp societies are made up of as many as 50 individuals, and each animal has a social rank.)

6. The horizontal pout is a signal of submission, and it's often accompanied by whimpering sounds.

The open grin shown in the first picture, this *closed grin* often means that a chimp is either excited or frightened. But the excitement or fear is less intense than that shown in the open grin. Chimps often make squeaking sounds when they grin in this way.

The closed grin also serves as a way of appeasing superior chimps. Lower-ranking chimps often use it when approaching a more dominant animal. In one of her books about chimpanzees, entitled *In the Shadow of Man*, Jane Goodall wrote, "If the human nervous or social smile has its equivalent expression in the chimpanzee it is, without doubt, the closed grin."

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**Junior Editors**

**Read a short story about gorillas and find out what's wrong with it.**

**Objectives:**
Identify some inaccurate information about gorillas. Explain why accuracy in journalism is important. Discuss some misconceptions concerning other mammals.

**Ages:**
Advanced

**Materials:**
- copies of pages 12 and 13
- reference books

**Subjects:**
Science and Journalism

**A gigantic, raging ape fills the movie screen. Having plundered his way through the streets of New York City, killing people and destroying buildings along the way, he's now making his last stand on top of the Empire State Building. A fleet of dwarfed, gun-equipped airplanes buzz through the air, trying to kill the violent beast and rescue the delicate woman he has kidnapped.**

Sound familiar? That vicious brute—a giant Hollywood gorilla named King Kong—made movie history when the original film by the same name hit the theaters in 1933. His behavior was typical of the savage image people had attributed to gorillas for years. But that image and the misconceptions that go along with it have since been proven wrong. Within the last 30 years gorilla researchers have discovered that these large primates are unaggressive, elusive animals. When danger threatens, they usually try to escape by running away—even though they're very strong and powerful.

Here's an activity that will help your kids learn about gorillas by identifying some incorrect information about them. It'll also get them thinking about some common misconceptions about other mammals.

Begin by telling the kids to pretend that they're editors of a science and nature magazine. Have them imagine that they receive many articles and stories each week from different writers. Part of their jobs as editors is to decide which of the articles and stories should be printed in their magazine.

Ask the "editors" what kinds of requirements they think an article or story must meet in order to make it into their magazine. Explain that because different magazines have different themes (e.g., science, sports, food, or whatever), they all have different requirements. But all good magazines look for stories and articles that are well-written, interesting, and technically accurate. To find out whether or not a story or an article is accurate, editors often do research on whatever the piece is about. This may involve, among other things, digging into reference books and looking up articles on the subject.

Next ask the kids why it's so important...
1. Chimp is very excited or frightened.

2. Chimp is aggressive.

3. Chimp wants something or is frustrated.

4. Chimp is playful.

5. Chimp has just been attacked or is otherwise being submissive.

6. Chimp is moderately excited or frightened.