

Lesson Title: Social Skills

Grade Levels: 9-12

Time Allotment: Two to three 45-minute class periods

Overview: In this lesson, students will use selected segments from the PBS series *The Human Spark* to investigate the differences and similarities between the respective social dynamics of humans and our closest primate relatives and what they may tell us about what—if anything—may make us uniquely human.

In the Introductory Activity, students are asked to brainstorm what the basic building blocks of human society are, and asked to consider whether any of these are indeed unique to humans, or if they may also be found in the animal world. In the Learning Activity, they will watch a series of excerpted clips from *The Human Spark* comparing and contrasting the social and individual behavioral tendencies of humans and primates along three main themes: altruism/helping/cooperation, laws/rules/power/politics, and learning/teaching. In the Culminating Activity, students will divide into groups to compare the observations they have made throughout the lesson on their student organizers and make brief presentations to the rest of the class.

This lesson is best used as an introduction to (or supplement to) a unit on anthropology or sociology.

Subject Matter: Anthropology, Sociology, Psychology, Evolutionary Biology

Learning Objectives:

Students will be able to:

- Outline the essential elements of human society
- Describe the basic dynamics of chimpanzee society
- Define a relationship in anthropological terms
- Provide experimental examples of an innate human tendency to cooperate
- Compare and contrast the learning and teaching behavior of humans and primates
- Explain why the extent of our ability to cooperate may constitute a “human spark” distinguishing us from animals

Learning Standards:

(From the National Curriculum Standards for Social Studies available at www.socialstudies.org/standards/strands)

Chapter 2—The Themes of Social Studies

1. CULTURE

Social studies programs should include experiences that provide for the study of culture and cultural diversity.

Human beings create, learn, share, and adapt to culture. The study of culture examines the socially transmitted beliefs, values, institutions, behaviors, traditions and way of life of a group of people; it also encompasses other cultural attributes and products, such as language, literature, music, arts and artifacts, and foods. Students come to understand that human cultures exhibit both similarities and differences, and they learn to see themselves both as individuals and as members of a particular culture that shares similarities with other cultural groups, but is also distinctive. In a multicultural, democratic society and globally connected world, students need to understand the multiple perspectives that derive from different cultural vantage points.

4. INDIVIDUAL DEVELOPMENT AND IDENTITY

Social studies programs should include experiences that provide for the study of individual development and identity.

Personal identity is shaped by an individual’s culture, by groups, by institutional influences, and by lived experiences shared with people inside and outside the individual’s own culture throughout her or his development. Given the nature of individual development in a social and cultural context, students need to be aware of the processes of learning, growth, and interaction at every level of their own school experiences. The examination of various forms of human behavior enhances an understanding of the relationships between social norms and emerging personal identities, the social processes that influence identity formation, and the ethical principles underlying individual action.

5. INDIVIDUALS, GROUPS, AND INSTITUTIONS

Social studies programs should include experiences that provide for the study of interactions among individuals, groups, and institutions.

Institutions are the formal and informal political, economic, and social organizations that help us carry out, organize, and manage our daily affairs. Schools, religious institutions, families, government agencies, and the courts all play an integral role in our lives. They are organizational embodiments of the core social values of those who comprise them, and play a variety of important roles in socializing individuals and meeting their needs, as well as in the promotion of societal continuity, the mediation of conflict, and the consideration of public issues.

Media Components:

Video:

Selected segments of *The Human Spark: So Human, So Chimp*

Chimp Politics

Host Alan Alda and scientist Franz de Waal observe and compare two alpha-male chimpanzees’ different approaches to sharing at the Yerkes National Primate Research Center in Atlanta.

Social Networks and the Spark

Oxford University's Alan Dunbar compares human social networks to those of chimps; at Yale University, host Alan Alda observes how babies as young as three months old favor cooperative puppets over those that won't play.

How We Learn

Host Alan Alda observes experiments at the Max Planck Institute for Evolutionary Anthropology which demonstrate how differently human children and orangutans learn how to complete tasks.

Monkey See, Monkey Do

At the Yerkes National Primate Research Center in Atlanta. Vicki Horner explains the ways chimps "passively tolerate" learning as opposed the "active" engagement of human teaching.

Cooperation Over Competition

Scientists discuss what may be the uniquely "human spark" which separates us from animals: our ability to communicate, cooperate, and collaborate with others.

Materials:

For the teacher:

1 projected computer with internet access
Social Skills Student Organizer Answer Key

For each of three groups of students:

1 computer with internet access

For each student:

Social Skills Student Organizer

Prep for Teachers:

Prior to teaching this lesson, you will need to:

Preview all of the video segments used in the lesson.

Download the video segments used in the lesson to your classroom computer, or prepare to watch them using your classroom's internet connection.

Print/copy the Social Skills Student Organizer for each student.

Introductory Activity

1. Ask students how they would define "society" in the most general manner possible? (*Accept all answers, but explain that for the purposes of this lesson, society can be defined in very broad anthropological terms as a community of individuals bound together by custom and*

function for collective benefit). Ask students what they think the common, fundamental elements of all human societies might be? In other words, what qualities or behavior is required of individuals to make societies work? (*Answers will vary.*) Write all answers on the blackboard or whiteboard and continue to solicit suggestions until your list includes some variation on the following:

- Altruism
- Communication
- Compassion
- Compromise
- Cooperation
- Generosity
- Government
- Hierarchy
- Language
- Laws
- Leadership
- Learning
- Organization
- Politics
- Rules
- Sharing
- Sympathy
- Teaching

2. Ask students if they think any of these elements of human society can be found in the animal world? (*Accept all answers.*) Is there anything on the list they think might be uniquely human—anything that might, in fact, define what it is to be human? (*Accept all answers.*) Tell students that this is not a “right or wrong” question. Explain that the areas of anthropology, sociology, and psychology that this lesson will touch upon are all highly theoretical and occasionally hotly disputed; for the most part, they will be focused on observing scientifically conducted experiments and understanding one interpretation of their results, but other interpretations are possible.

3. Distribute the “Social Skills” student organizer. Explain that in this lesson, the class will be watching video segments from the PBS series *The Human Spark*, hosted by Alan Alda, exploring the similarities and differences in social organization among humans and our closest primate relatives, and what they may tell us about what it is—if anything—that makes us uniquely human. Tell students that they will be focusing in particular on the organizer’s three themed groupings of social attributes:

- Altruism/helping/cooperation
- Laws/rules/power/politics
- Learning/teaching

4. Explain to students that as they proceed through the lesson, they should keep notes of anything they observe in any of the video clips that pertains to these three themes as they

apply either to humans or primates, and that the class as a whole will be returning to the organizers at the conclusion of the lesson.

Learning Activities

1. Ask students what they think “politics” is in its simplest form. (*Accept all answers.*) Explain that politics, broadly defined, is a process by which groups of individuals make collective decisions. Do students think that this is a uniquely human activity? (*Accept all answers.*) Frame the first segment from ***The Human Spark*** by telling students that they will be looking at how researchers at the Yerkes National Primate Research Center in Atlanta, Georgia are observing some basic principles of politics in the behavior of chimpanzees, including two “alpha-males”—Stewart and Skip. Ask if anyone can explain what an alpha-male is. (*An assertive, powerful male holding or aspiring to a position of dominance.*) Provide a focus question by asking students to pay attention to how Stewart and Skip react differently to the female chimpanzees’ entreaties to share their food. PLAY Clip #1: Chimp Politics.

2. Review the focus question: how do the two alpha-males in the segment—Stewart and Skip—react differently to the female chimpanzees’ entreaties to share their food? (*Stewart doesn’t share, but Skip does.*) How do the females make their request known? (*They surround and pester the alpha-males.*) Which is the more politically astute chimpanzee, and why? (*Skip, because he recognizes that the goodwill of the females will help him in his next power struggle with Stewart or any other alpha-male.*) Ask students if Skip’s power is based on physical strength? (*While Skip’s initial viability as an alpha-male may be based on his physical strength, it is his awareness of others—even weaker others—and the importance of their perception of him that makes Skip more likely to prevail in a future contest between himself and Stewart.*)

3. As Yerkes scientist Franz de Waal notes to Alda in the video segment, cooperation and alliances— “keeping score, trading favors”—are necessary in both chimp and human society. Ask students if cooperation, alliances, the asking and doing of favors, and remembering who’s done what for whom are ever important considerations in their own lives? If so, how? (*Accept all answers.*) Frame the next video segment by explaining that part of “keeping score” in relationships is simply keeping track of them all in the first place, and that scientists are making interesting discoveries about the relative ability of chimps and humans to do so. As they watch the next segment, ask students to focus on how Oxford University anthropologist Robin Dunbar defines a relationship. PLAY Clip #2: Social Networks and the Spark.

4. PAUSE at 0:51, right after Alda says “Robin notes that the threefold increase in group size, from 50 in chimps to 150 in humans, fits in nicely with the three times bigger brains we humans possess.” Review the focus question: how does Robin Dunbar define a relationship? (*When two people know each other as persons, know where they fit into each other’s social world, and are willing to do favors for each other.*) Ask students approximately how many relationships they think they have, according to Dunbar’s definition. (*Accept all answers.*) Suggest to students that new technologies have made it easier than ever to quantify the number of relationships we have; can anyone guess what some are? (*Facebook, Twitter, Myspace, and other social networking sites.*) Tell students that Dunbar’s figure of 150 real

relationships is very close to the average person's number of Facebook friends (120). Many people have more than 150 Facebook friends, and some number their Twitter followers in the thousands or even millions, but how many of these would fit Dunbar's definition of a relationship? (*Accept all answers, but suggest that any one person probably has fewer "real" relationships than his or her social networking profile would indicate.*) Suggest to students that even as technology allows us to make at least superficial connections with a virtually infinite number of people, the amount of time—and brain power—we can spend on relationships remains stubbornly unchanged from what it has always been.

5. Working within these limitations on the quantity and quality of our relationships, how do we choose who we will develop as our closest friends and allies? (*Accept all answers.*) Putting aside personal interests, beliefs, appearance and all the other subjective qualities that draw us to (or repel us from) other people, what is a fundamental quality that anyone is looking for in someone else? [Hint: Skip understood this, and Stewart didn't!] (*Cooperation.*) Explain that both individual relationships and great societies depend on the same thing: the expectation that others will be willing to work together, to give and to take in the inherently shared enterprise of human relations. One-sided friendships don't last long, and uncooperative societies disintegrate. Ask students if they think the impulse to cooperate is something we're born with or something we learn? (*Accept all answers.*) Frame the next clip by explaining that it will demonstrate how deeply ingrained the principle of cooperation is among humans. Provide a focus question by asking how psychology professor Karen Wynn interprets the results of the experiment shown in the segment. RESUME Clip #2: Social Networks and the Spark.

6. Review the FOCUS question: how does psychology professor Karen Wynn interpret the results of the experiment shown in the segment? (*She believes that it reflects our hard-wired nature as cooperative social beings, who must be able to distinguish cooperators from non-cooperators.*) Ask students why it would be so important for us to make that distinction? (*Cooperators make much better mates, friends, and allies than non-cooperators.*) Tell students that many scientists and researchers have indeed come to see cooperation as humanity's primary evolutionary strategy—the “secret weapon” that has enabled us to develop faster and further than any other species. Ask students why cooperation would be an evolutionary asset? (*Unlike most other animals who rely for their evolutionary advancement on individual attributes like speed or strength, humans' greatest evolutionary assets are other humans, with whom we cooperate to accomplish things—the hunting of large animals, for instance, or the invention of the computer—that would otherwise be beyond the abilities of individuals.*) Frame the next clip by explaining that it shows another series of psychological experiments with both human children and primates, this time at the Max Planck Institute of Evolutionary Anthropology in Leipzig, Germany. Provide a focus question by asking students what similarities and differences they see between human children and chimps with regard to their tendency to cooperate. PLAY Clip #3: “How We Learn.”

7. PAUSE segment at 31:37, after Alda says “human children are eager to help with all sorts of troubles, and what's more, they seem to enjoy it.” Review the focus question: what similarities and differences are there between human children and chimps with regard to their tendency to cooperate? (*Both children and primates offer help to others in reaching objects, but the impulse to help is much stronger in human children, extending to a greater range of actions—e.g. opening and closing closet doors—and it appears to give them actual*

pleasure and/or satisfaction.) Ask students why they think children seem to get pleasure from helping others? (*Accept all answers.*) Do they think children offer help for political reasons? In other words, do children help because they feel they have something to gain by doing so? (*Accept all answers.*) Or do they think that children’s impulse to help is genuinely altruistic? In other words, is helping someone else its own reward? (*Accept all answers.*) Explain that while it is an age-old philosophical debate whether or not altruism is truly “selfless” or only “enlightened self-interest,” what is certain is that both human children and adults tend to derive pleasure and/or satisfaction from helping others, which in turn tends to help them establish and promote themselves within the social web of human relationships. Provide a focus question for the remainder of the video segment by asking what the similarities and differences are in learning methods between human children and orangutans. RESUME playing segment #3 through to the end.

8. Review the focus question: what are the similarities and differences in learning methods between human children and orangutans? (*Humans learn by observing and imitating others—especially if the other is older and more skilled—while orangutans tend to do their own thing, even after observing a different method.*) Which method do students think would be more effective? Why? (*Observing and imitating, because it allows for knowledge and experience to be more effectively and efficiently transmitted among individuals, as opposed to each individual “re-inventing the wheel.”*) Could this be described as a more “social” approach? (*Yes.*) Explain that an approach to learning which emphasizes observation and imitation of others capitalizes on the human tendency for cooperation and social behavior the class has been discussing. Frame the next video segment by explaining that it will be examining how chimpanzees learn. Provide a focus question by asking students what the similarities and differences are between how humans and chimps learn. PLAY Clip #4: “Monkey See, Monkey Do”

9. Review the focus question: what are the similarities and differences between how humans and chimps learn? (*Both species learn by observing others, but while chimps tend to “passively tolerate” those observing them, humans “actively engage” in the “mutually cooperative” process of teaching and learning.*) Ask students if they think chimp behavior is closer to our own than orangutans? (*Yes.*) Why might this be? (*Chimpanzees are much closer relatives to us than orangutans, having diverged from us on the evolutionary tree 6 million years ago, compared with 15 million for orangutans.*) Have the researchers in the video segments been exhibiting active engagement in teaching their subjects? (*Yes.*) Ask students if they can think of an instance in which the human subject of one of those experiments stepped into the teaching role? (*The video segment in which the young boy was shown the “right” way to push a cube off of a platform—i.e. assembling a tool and using it to push a cube—and then attempted to teach the polar bear puppet to do the same.*) How did the boy react when the polar bear puppet attempted to complete the task using the “wrong” method (i.e. tilting the platform)? (*The boy tried again to show the puppet the right method, scolded the puppet for not using it, and finally attempted to physically prevent the puppet from using the wrong method.*) Assuming that this behavior is typical among other children—and research has shown that it is—what conclusions might we draw from it? (*That humans tend to prefer—and occasionally insist—that others do things as they’ve been taught.*) Do students think that this is a healthy social impulse? (*Accept all answers.*) How might it be healthy? (*It encourages an orderly and efficient transfer of knowledge.*) How might it be unhealthy? (*It could discourage individual creativity and initiative.*) What if the “wrong” way to do something is in fact the better method? The puppet’s solution to the problem, for example,

bypassed the need to construct a tool. Could that be considered an innovation? (*Accept all answers.*) Ask students if they think humans would ever have become humans in the first place if they *always* did what they observed others doing, or did things as they were taught. (*No—we might even still be chimps!*)

10. Return to the list of a society's basic elements the class compiled in the Introductory Activity, and discuss which elements are being demonstrated in the experiment with the boy and the puppet? (*Accept all answers, but keep prompting until someone offers the response of laws/rules.*) What happens to a society without them? (*Chaos and anarchy.*) What happens if a society has too many laws, rules, and enforcement? (*Authoritarianism and repression.*) Explain that just as individuals must find the balance between following established precedents and striking out on their own, a healthy society must find the balance between laws and liberty, between tradition and innovation. Explain that there is a distinctly human quality which enables this social balance to be struck, and that it may in fact be the foundation of all uniquely human endeavors—what is it? (*Accept all answers.*) Provide a focus for the next clip by asking students to be looking for what it is that Alda suggests may be “the human spark” which ultimately distinguishes us from primates and other animals. PLAY Clip 5: “Cooperation Over Competition.”

11. Review the focus question: what is it that Alda suggests may be “the human spark” which ultimately distinguishes us from primates and other animals? (*Our ability to get along and work together, even with individuals we don't know.*) What does evolutionary psychologist Mike Tomasello call this? (*A sense of “we-ness”.*)

Culminating Activity

1. Divide students into three groups. Allow 15-20 minutes for groups to compare and contrast the notes they have been keeping throughout the course of the lesson on their “Social Skills” student organizers, rewatching video clips as necessary on their computer(s). In addition, have each group select ONE of the elements of society compiled as part of the Introductory Activity that is NOT one of the organizer's three themed groups, and find examples of it in the video excerpts. (Each group should select a different element.)

2. After groups have completed their discussions, have each group make a brief presentation to the rest of the class, citing examples in the video clips and explaining any conclusions drawn about ONE of the three themes on the organizer PLUS the additional “element” which they selected to watch for in the video clips. After each presentation, encourage contribution and discussion from the rest of the class. Do they agree with the presenting groups conclusions? Why or why not? (*Accept all answers, and note that the “answers” given on the Student Organizer Answer Key are not comprehensive or definitive, but rather examples of possible conclusions.*)

**“SOCIAL SKILLS”
Student Organizer Answer Key**

ELEMENT OF SOCIETY	Examples in primate behavior	Examples in human behavior	Possible conclusions
Altruism/helping/cooperation			
Laws/rules/power/politics			
Learning/teaching			

**“SOCIAL SKILLS”
Student Organizer Answer Key**

ELEMENT OF SOCIETY	Examples in primate behavior	Examples in human behavior	Possible conclusions
Altruism/helping/cooperation	<p><i>Clip 1: Female chimps unite to pester Alpha males Stewart and Skip to share their watermelon.</i></p> <p><i>Clip 3: Chimps help with reaching tasks.</i></p> <p><i>Clip 4: Competition trumps cooperation among chimps.</i></p>	<p><i>Clip 2: Infants prefer cooperating puppets to non-cooperating puppets.</i></p> <p><i>Clip 3: Children help with reaching tasks AND with opening closet doors, doing both with great enjoyment.</i></p> <p><i>Clip 5: Brian Hare and Alan Alda, despite being strangers, are working together to make a film for other strangers.</i></p>	<p><i>Compared with humans, who easily and naturally gravitate toward cooperation (and cooperators) whether or not doing so brings them immediate benefit, primates only seem capable of simpler acts of basic assistance, and their ability to cooperate appears limited to individuals they know in circumstances where it may immediately benefit them.</i></p>
Laws/rules/power/politics	<p><i>Clips 1 and 5: Alpha males Stewart and Skip can choose whether to share food with females (including Stewart's own mother).</i></p> <p><i>Clip 1: Skip the chimp shares with females to gain their favor in future power struggles with Stewart.</i></p>	<p><i>Clip 3: Having been shown the “right” way to complete task, the little boy is happy to comply, and insists that the puppet do so as well.</i></p>	<p><i>Physical strength is the single greatest determinant of power in the primate world, although more subtle politics are also in play. Humans have a more sophisticated system of rules, very likely made possible by our natural tendency to follow them.</i></p>
Learning/teaching	<p><i>Clip 3: Orangutans complete simple tasks their own way, whether or not it is the method they have been shown.</i></p> <p><i>Clip 4: Chimps learn by imitation.</i></p> <p><i>Clip 4: Chimps “passively tolerate” the observation of other chimps attempting to imitate them.</i></p>	<p><i>Clip 3: Children tend to follow the example of their elders.</i></p> <p><i>Clip 4: Humans “actively engage” in teaching.</i></p>	<p><i>Orangutans are highly individual in their approach to learning tasks. Chimps, on the other hand, are more social, imitative learners. Humans are also imitative, but even more social than chimps, with an ability (and tendency) to actively, cooperatively teach others. This suggests that humans and chimps share an evolutionary strategy of cooperation—something neither species shares with Orangutans, which took their own evolutionary path millions of years ago.</i></p>