

Early Man Evolution: Why We're So Chatty.

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Human beings love to talk and this ability distinguishes us from other primates. This article is a middle school lesson plan based on an article exploring the theory that the gene FoxP2 mutated in humans giving us the gift of speech. It includes helpful links and questions.

We have developed thousands of different languages over the centuries; the ability to speak distinguishes us from other primates and its origins have always intrigued scientists and anthropologists.

The article We the mutants. (US News & World Report, September 16, 2002) explores one of the roads this interest has led researchers down; namely, the theory that a gene called FoxP2 mutated in homo sapiens giving us the gift of language. Anthropologist Svante Paabo found human FoxP2 to be different when compared to the same gene in chimpanzees and other mammals. Through mathematical analysis Paabo determined this gene mutation occurred about 200,000 years ago, leading him to hypothesize it may be responsible for human speech. The possibility that another mutation may be responsible for large brains in human beings also discussed. At the time of publication, Paabo and others were beginning to map the genome of chimps hoping to substantiate the idea that gene mutations are what made us human.

Vocabulary Words:

Homo sapiens - bipedal primates dependent on language and able to produce complex tools. Human beings belong to this category.

Genome – a life form's genetic material.

Anthropologist – one who studies human development, culture and behavior.
Handout questions:

Questions:

1. Who was the author of the article We the Mutants?
2. What three skills are central to Homo Sapiens and when did Homo Sapiens develop them?
3. What gene is being linked to language?
4. Why do scientists think that the variation in the human version of the gene may have led to speech?
5. What does the mutation that occurred about 2.7 million years ago do in the human body?