Cutting up food helped human evolution

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Eating habits and food processing skills from around two million years ago helped humans to evolve and develop language. Researchers from Harvard University say that learning to cut meat up and using basic stone tools to process food was a crucial step in our evolutionary process. The fact that we cut food up or pounded and crushed it meant we needed less time for chewing. This gave our mouths more free time to develop language and communicate. The researchers estimate that cutting up meat and other food saved early humans as many as 2.5 million chews per year. In contrast, the chimpanzee spends half of its day chewing, which means it has less time to communicate.

The researchers also said the shape of our face changed because we needed to chew less. Our jaws and teeth became smaller because we had learnt to cut up food. Professor Daniel Lieberman said: "We went from having snouts and big teeth and large chewing muscles to having smaller teeth, smaller chewing muscles, and snoutless faces. Those changes, and others, allowed for the selection for speech and other shifts in the head, like bigger brains." Dr Lieberman chewed raw goat meat to test his theory. He said: "You chew and you chew and you chew and you chew, and nothing happens." He added that to some extent, slicing meat into smaller pieces before chewing, "is the simplest technology of all".

Sources: *telegraph.co.uk / LAtimes.com / livescience.com*

Writing

Eating raw food is better for us. Discuss.

Chat

Talk about these words from the article.

eating habits / food processing / tools / crucial / evolutionary process / chimpanzee / jaws / teeth / muscles / selection / bigger brains / theory / slicing meat / technology

True / False

a) The food processing skills mentioned happened two million years ago. T / F

b) The research is from Cambridge University. T / F

c) Our speaking skills developed because we needed to chew less. T / F

d) Chimpanzees spend about half their days chewing. T / F

e) The shape of our face changed because we needed to chew less. T / F

f) Our teeth got bigger because we needed to chew less. T / F

g) One of the researchers chewed raw chicken to prove his theory. T / F

h) The researcher said slicing meat was a very advanced technology. T / F

Synonym Match

1.	skills	a.	prehistoric
2	develop	b.	degree
3.	crucial	c.	progress
4.	estimate	d.	alterations
5.	early	e.	examine
6.	shape	f.	capabilities
7.	changes	g.	structure
8.	test	h.	guess
9.	theory	i.	key
10.	extent	j.	notion

Discussion – Student A

a) What do you think about what you read?

b) What do you know about human evolution?

c) Would eating raw food mean you speak less?

d) How important is chewing?

e) What did your parents tell you about chewing?

f) How much of the day do you spend chewing?

g) Is chewing gum important?

h) Does food taste better the more we chew it?

Phrase Match

1.	eating	a.	test his theory
2	food	b.	tools
3.	using basic stone	c.	brains
4.	crucial steps in our evolutionary	d.	its day chewing
5.	the chimpanzee spends half of	e.	habits
6.	chewing	f.	nothing happens
7.	bigger	g.	of all
8.	Lieberman chewed raw goat meat to	h.	processing
9.	you chew and you chew, and	i.	muscles
10.	the simplest technology	j.	process

Discussion – Student B

a) What things do you most like chewing?

b) If we only have soup and never chew, would we talk more?

c) What do you think of chewing raw meat?

d) Is there anything you don't like chewing?

e) How else does food affect communication?

f) Is this the simplest form of technology?

g) How will we evolve in the next million years?

h) What questions would you like to ask the researchers?

Spelling

1. food esocpnrgis

2. oevlve and develop

3. crucial steps in our evolutionary spcseor

4. we cut food up or dednoup and crushed it

5. The researchers meisetat

6. In trosctna, the chimpanzee spends…

7. Our wjas and teeth became smaller

8. large chewing lsemscu

9. the otlneiesc for speech

10. test his hreoty

11. to some ntexte

12. the simplest gyothelcno of all

Answers – Synonym Match

1.	2. c	3. i	4. h	5. a
6. g	7. d	8. e	9. j	10. b

Role Play

Role A – Fire
You think fire was the most important thing for human evolution. Tell the others three reasons why. Tell them why their things weren't so important. Also, tell the others which is the least important of these (and why): clothes, the wheel or spears.

Role B – Clothes
You think clothes were the most important things for human evolution. Tell the others three reasons why. Tell them why their things weren't so important. Also, tell the others which is the least important of these (and why): fire, the wheel or spears.

Role C – The wheel
You think the wheel was the most important thing for human evolution. Tell the others three reasons why. Tell them why their things weren't so important. Also, tell the others which is the least important of these (and why): clothes, fire or spears.
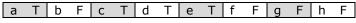
Role D – Spears
You think spears were the most important things for human evolution. Tell the others three reasons why. Tell them why their things weren't so important. Also, tell the others which is the least important of these (and why): clothes, the wheel or fire.

Speaking – Evolution

Rank these with your partner. Put the things most important for our evolution at the top. Change partners often and share your rankings.

- fire
- knives
- clothes
- the wheel
- computers
- penicillin
- electricity
- spears

Answers – True False

a	T	b	F	c	T	d	T	e	T	f	F	g	F	h	F

Answers to Phrase Match and Spelling are in the text.