

The Human Family Tree: Big Ideas

1. Modern humans evolved in Africa 200,000 years ago

2. We can all trace our DNA back to two Africans, “Adam and Eve”

- Males using the Y chromosome
- Females using the mitochondria

3. At one point, humans were an endangered species, numbering 2,000

4. Most humans descend from a single migration that swept out of Africa 60,000 years ago

- May have converged with earlier migrations, e.g. Neanderthals
- Evidence of humans in India 75,000 years ago

5. Humans continued to migrate

- 50,000 years ago they reached Central Asia
- 35,000 years ago went to Europe
- 20,000 years crossed land bridge from Asia (Russia) to Americas (Alaska)

6. Genetically speaking, race does not exist

- Race = .01% of DNA
- Handful of mutations out of more than 3 billion letters on the human genome
- Without miniscule mutations, might not have survived northward push
- Lots of our genetic markers have been lost; DNA only tells pieces of our ancestral history

7. Humans have successfully endured all kinds of climate changes