

MITOCHONDRIAL EVE

Purpose

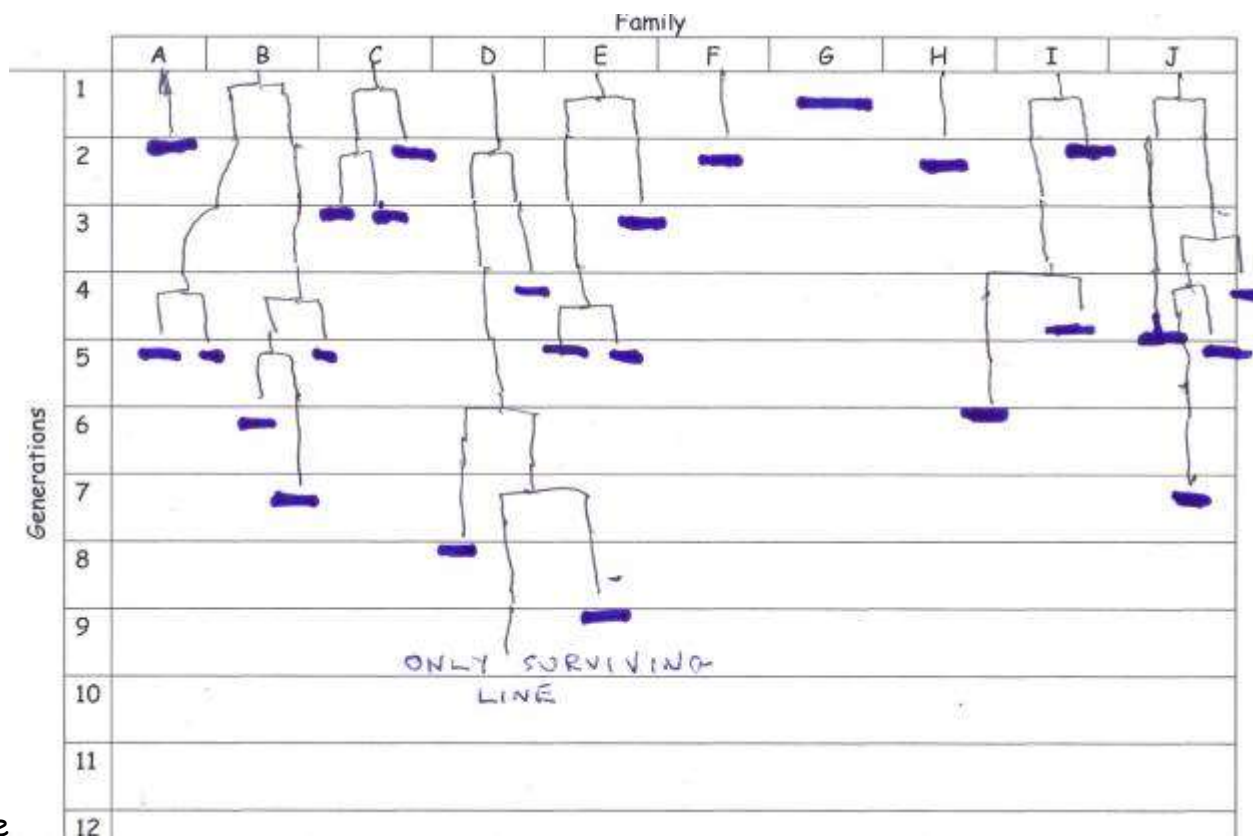
To show how family lines will die out. Mitochondrial genes are passed down only through the mother. We are all said to be descended from a mother nick named "Mitochondrial Eve" who lived 100,000 years ago. Although there must have been many other mothers alive then their family lines have died out because they did not have daughters who survived to reproduce.

Activity

Imagine there are 10 families. Each mother may have 1 or 2 girls, 1 or 2 boys, a boy and a girl or no children. Only girl children who survive to reproduce will pass on the mitochondrial genes. For each family in turn throw the dice to see what offspring the mother will have. If it is a girl or a girl and a boy draw a vertical line for that generation, if it is two girls draw two vertical lines for that generation, if there are no girls draw a horizontal line and do not throw any more dice for that line.

Throw on dice	1 = 1 girl
	2 = 2 girls
	3 = 1 girl and one boy
	4 = 1 boy
	5 = 2 boys
	6 = no children

		Family									
		A	B	C	D	E	F	G	H	I	J
Generations	1										
	2										
	3										
	4										
	5										
	6										
	7										
	8										
	9										
	10										
	11										
	12										



An example