

How is Sex Inherited? U-9 L-6

Genes and Gender

- ▷ gender (sex) is determined by genes
- ▷ chromosomes
 - 46 total in us
 - can line up in 23 pairs (by scientists)
 - = each pair given a number
 - 23rd pair determines gender
 - also called sex chromosomes
 - two possible shapes
 - ▲ "X" chromosome
 - ▲ "Y" chromosome

▷ fertilization results

- egg has one "X"
- sperm has either one "X" or one "Y"
- sperm w/ "X" joins egg ("X")...
 - = two "XX"s = female child
- sperm w/ "Y" joins egg ("X")...
 - = one "X" and one "Y" = male child
- chances even for female or male child

	Father (sperm cells)	
	X	Y
Mother (egg cells)	X	Y
X	XX	XY
x	xx	xy

▶ twins

- identical

- fertilized egg $\rightarrow$ embryo $\rightarrow$ splits

- ▣ same chromosomes so same genes

- ▣ same genes " " gender

- fraternal

- two eggs released by ovaries at once

- each has even chance of being fertilized by sperm with "X" or "Y"

- ▣ so may be same, or different, genders