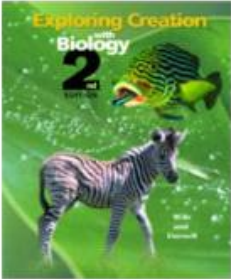

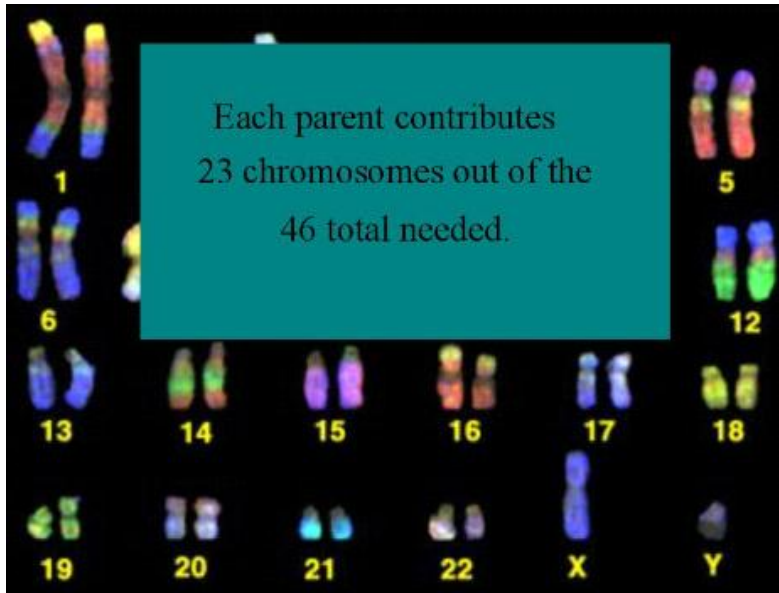


M07 L2 Meiosis: Sexual Reproduction; Viruses

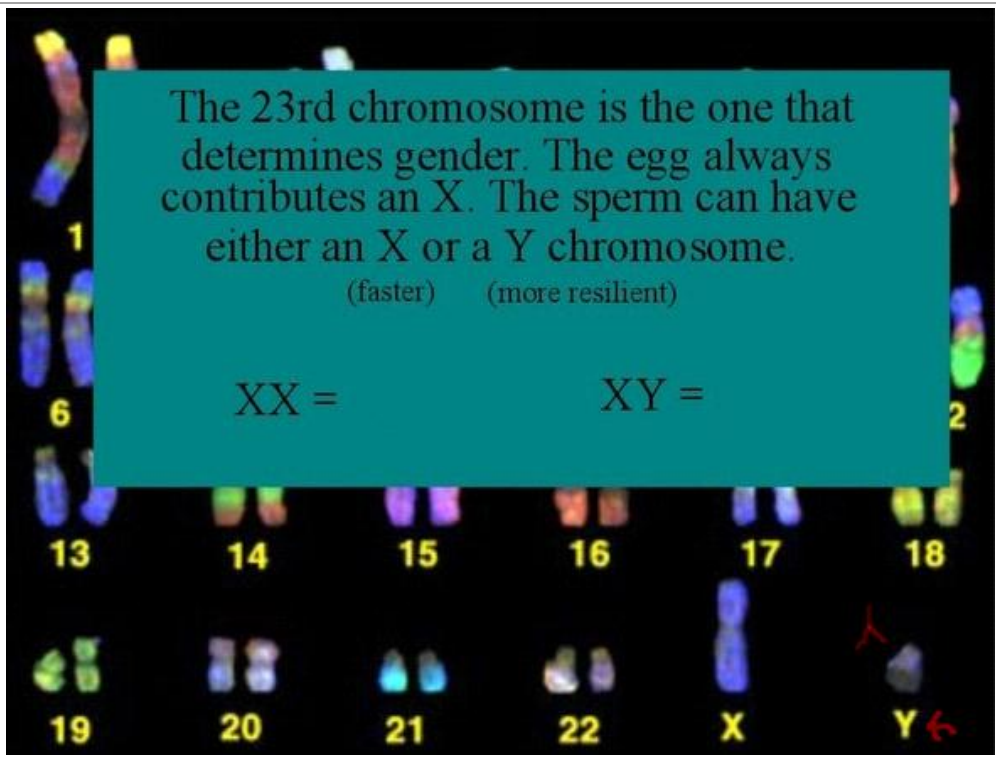
Thursday, March 05, 2009
11:32 AM

VoiceThread	http://voicethread.com/share/284616/
Cmap	Meiosis link at http://cmapspublic2.ihmc.us/rid=1162146752843_1850044098_26621/Cell%20Division.cmap

Slides	Notes
 <p>Module 07: Cellular Reproduction</p> <p>Lecture 1: Genes, Chromosomes, and DNA Mitosis: Asexual Reproduction</p> <p>👉 Lecture 2: Meiosis: Sexual Reproduction Viruses</p> <p>Lab Day</p> <p>Interactive Practice</p>	<p>New students - David and Patricia Thompson's student, Michelle Scriven's student, Lisa Overly's student</p>
<p>👉 Meiosis: Sexual Reproduction</p> <p>Viruses</p>	
<p>Sexual reproduction means that the offspring has a new genetic mix.</p> 	<p>Just enjoy following the characteristics (looks) from one generation to another.</p>



Content on slide.



The slide is reversed

The female always donates an X.

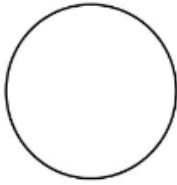
The male can donate either an x or a y
 If an X then the offspring will be a girl
 If a y then the offspring will be a boy

Gametes

Each with 23 chromosomes

n

ovum or egg



sperm



once they join, the number goes back up to 46 again

$2n$

23 in a human - it is a haploid at this point.
When they join, then back up to 46 - diploid

Meiosis: The process by which a diploid ($2n$) cell forms four gametes (n)

Meiosis I

Prophase

Metaphase

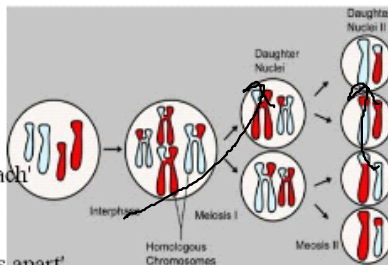
one homologue each'

Anaphase

'pulls homologues apart'

Telophase

'surrounded by nuclear material'



Meiosis II

Prophase

'both'

Metaphase

Anaphase
'pulls duplicates from original'

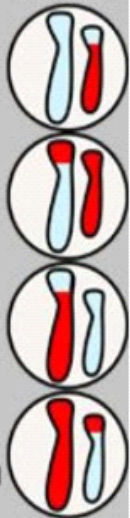
Telophase

'nuclei'

Four haploid cells, no duplicate chromosomes

Important keywords are listed in black associated with each phase.

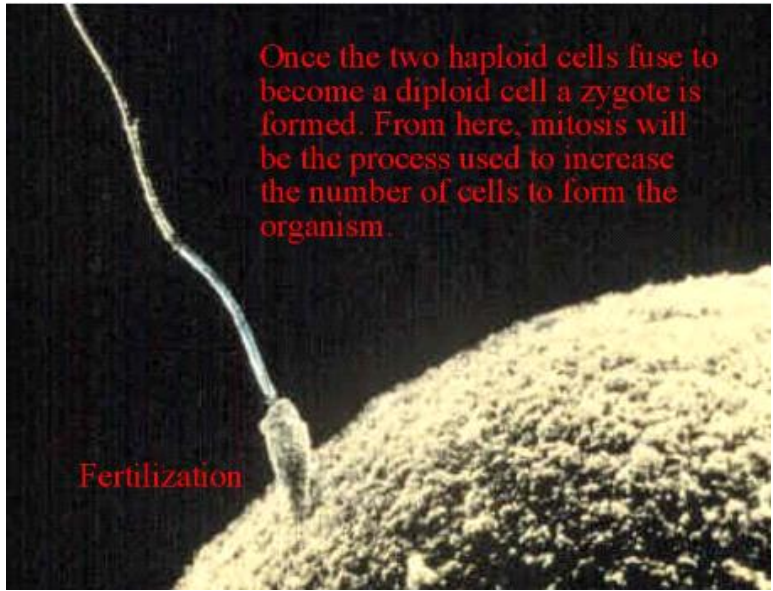
Daughter Nuclei II



Each of the four gametes has only one of each chromosome pair

If an egg ...
One will be large and the other three will be tiny (these tiny ones are called polar bodies) and will die.

If sperm all four will grow a flagella and compete to be the first one to the egg.



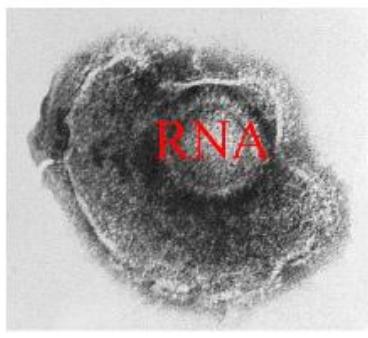
The egg is the largest cell in the human body (female only of course)

Once the sperm is in - zygote, diploid

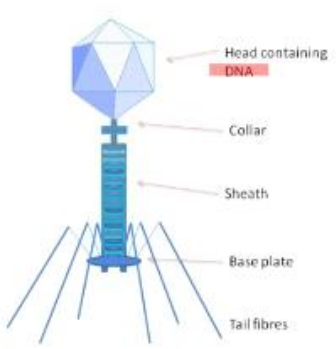
Meiosis: Sexual Reproduction

👉 Viruses

chicken pox virus



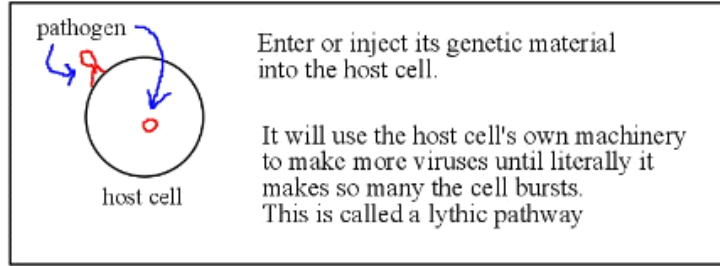
Bacteriophage



1. genetic material inside a protective protein coat
2. it cannot reproduce itself



cannot reproduce
cannot take in nutrients and convert them to energy
the term that gets applied is 'non-cellular'



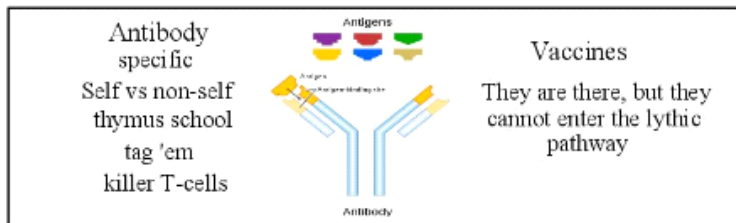
Sometimes the virus will lay dormant in the host cell even for years. HIV does this

Viruses are considered non-cellular life

Pathogen - it can make you sick.

barrier

inflammation
(recruits immune cells)
white blood cells (phagocytotic - bon appetite)
in bloodsteam and lymph nodes



autoimmunity
hypersensitivity

The body has lots of mechanisms to stop pathogens.

Sometimes our immune systems get to trigger happy though and we get allergies which are hypersensitivities to things that normally wouldn't bother us.

Auto-immune disease are when the immune system attacks a part of the organism's own body, such as the villi in the small intestine (Celiac disease), the joints (arthritis), etc.

8am <http://www.virtualhomeschoolgroup.com/mod/quiz/view.php?id=841>

9am - <http://www.virtualhomeschoolgroup.com/mod/quiz/view.php?id=10916>

2:30pm - <http://www.virtualhomeschoolgroup.com/mod/quiz/view.php?id=13922>

2010/11: <http://www.virtualhomeschoolgroup.com/mod/quiz/view.php?id=18300>