



PHONES & EAR BUDS away Please!

Tues, Nov 7, 2017

Pick up: POGIL

Today you will:

1. Collaborate to complete the POGIL
 - Your grade for your POGIL will come from POGIL & assessment.

Homework/Planner:

Wed-turn in WB ch. 5 & pink Quiz review

Study!

DSQ ISN pg 84

- Which of the following is the *BEST reason organisms use asexual reproduction?*
- A) Asexual reproduction results in genetic diversity.
- B) Asexual reproduction enables organisms to live in varied environments.
- C) Asexual reproduction makes clones of organisms which helps them survive in stable environments.
- D) Asexual reproduction is more complicated but results in better offspring than sexual reproduction.

POGIL

Process Oriented Guided Inquiry Learning

- You will work with a partner

Important!!!!!!!!!!

COLLABORATION of your team will get you through it!

EXPLORE

Prokaryotic & Eukaryotic Reproduction

1. Asexual Repro.:

Mitosis=humans

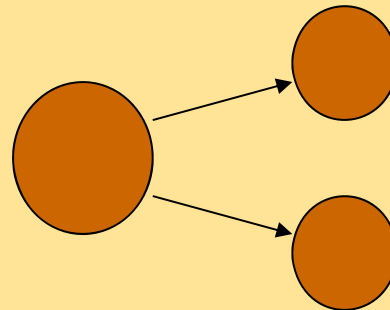
Binary fission

https://www.youtube.com/watch?v=FBBnNhN_NM

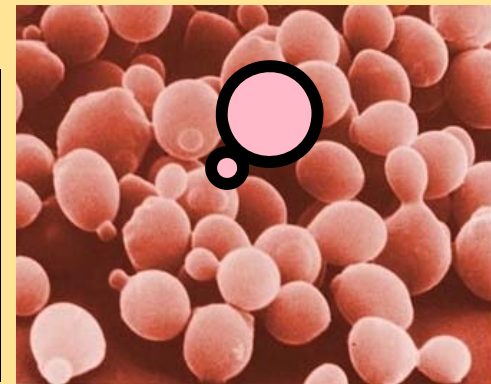
Budding

<https://www.youtube.com/watch?v=Yslxw5L>

- 1 cell splitting in 1/2
- offspring identical!



Binary Fission=
bacteria &
paramecium



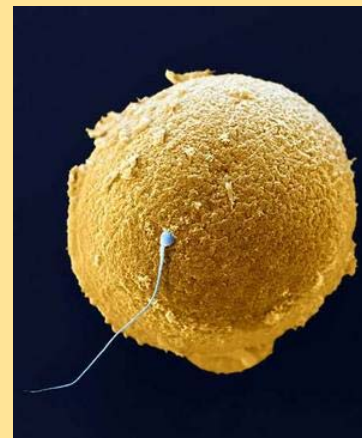
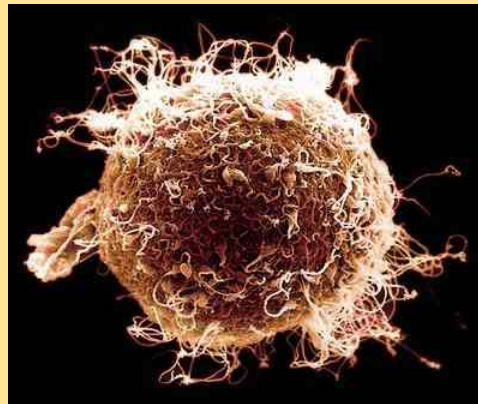
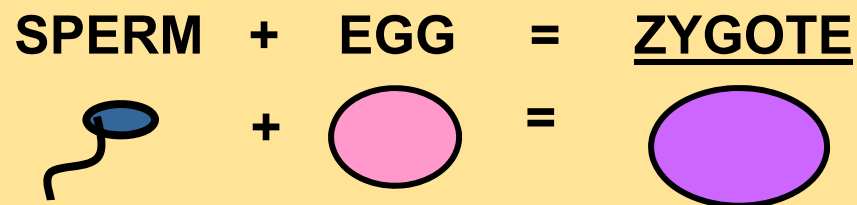
Budding= hydra & yeast

EXPLORE

Eukaryotic Reproduction

2. Sexual Repro.:

- 2 cells joining
- results in genetic variability



EXPLORE

Eukaryotic Reproduction

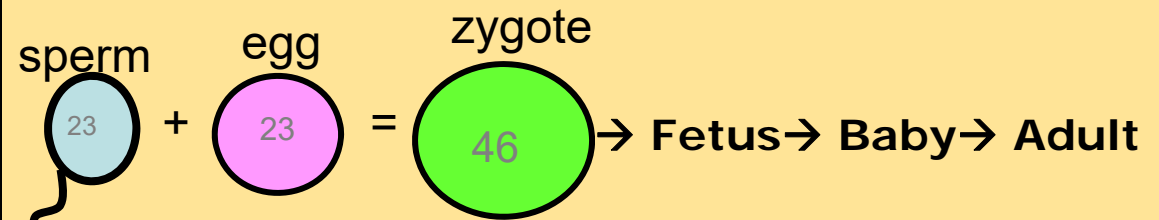
3. What is fertilization?

4. After fertilization occurs, what is the cell that is produced called?

3. Joining of sperm with egg

4. Zygote

(we all start out as one cell)



Fertilization = when sperm joins egg

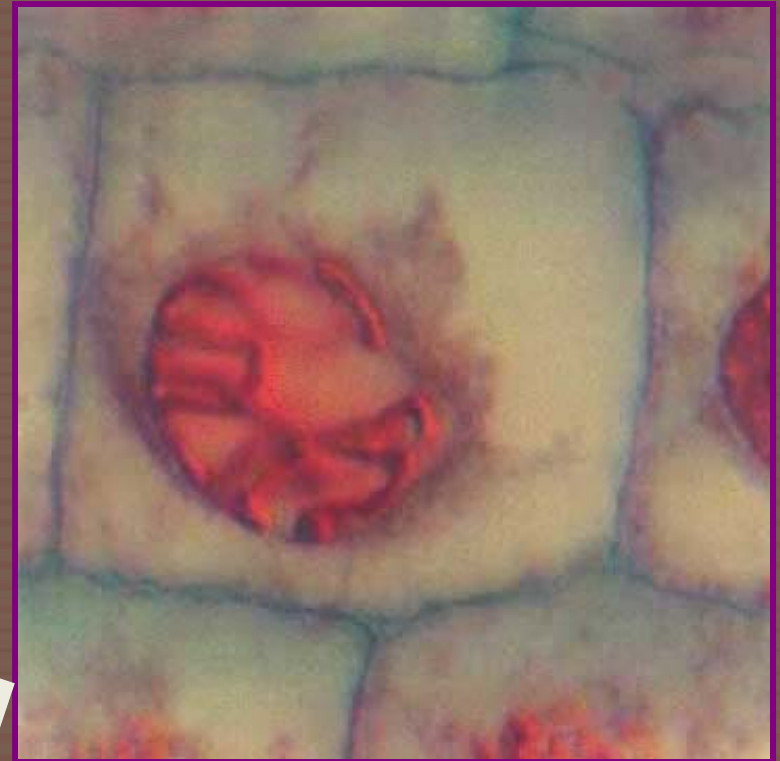
Zygote = fertilized egg

HAPLOID=1n

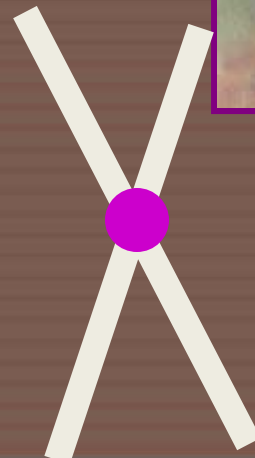
DIPLOID=2n

PROPHASE

1. *DNA shortens & thickens...*
2. *...to become visible*
xosomes:
3. *Centrioles/centrosome w/spindles form & move to poles*

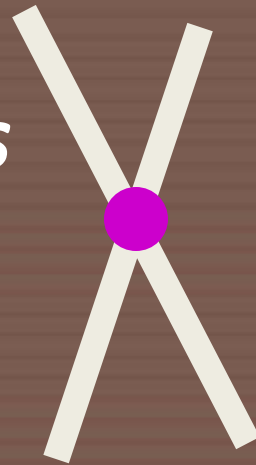


2 chromatids +
1 centromere =
1 chromosome

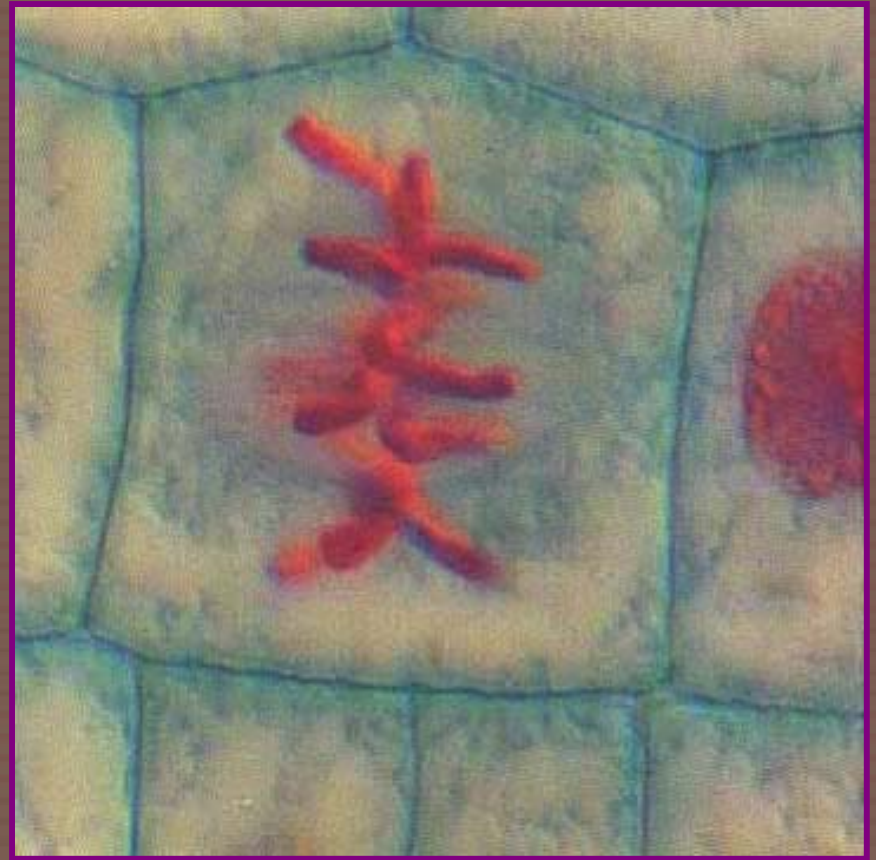


METAPHASE

1. *Spindle fibers attach to xosomes at the centromeres*



2. *xosomes to move...to equator*

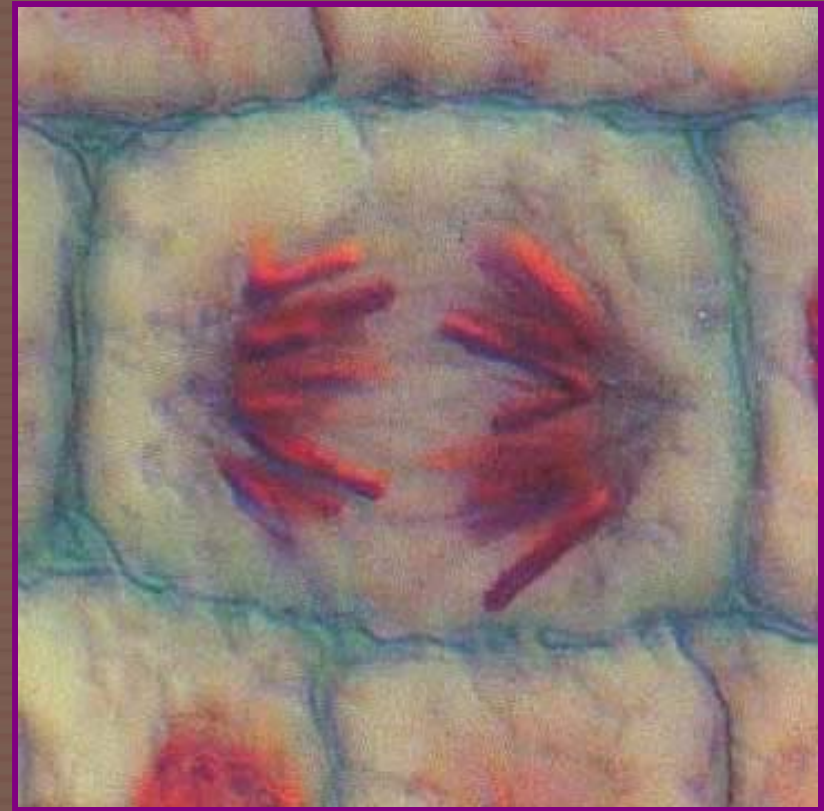


ANAPHASE

1. *x*somes split (at centromere) - becoming **individual *x*somes**

2. *Each moves apart towards pole*

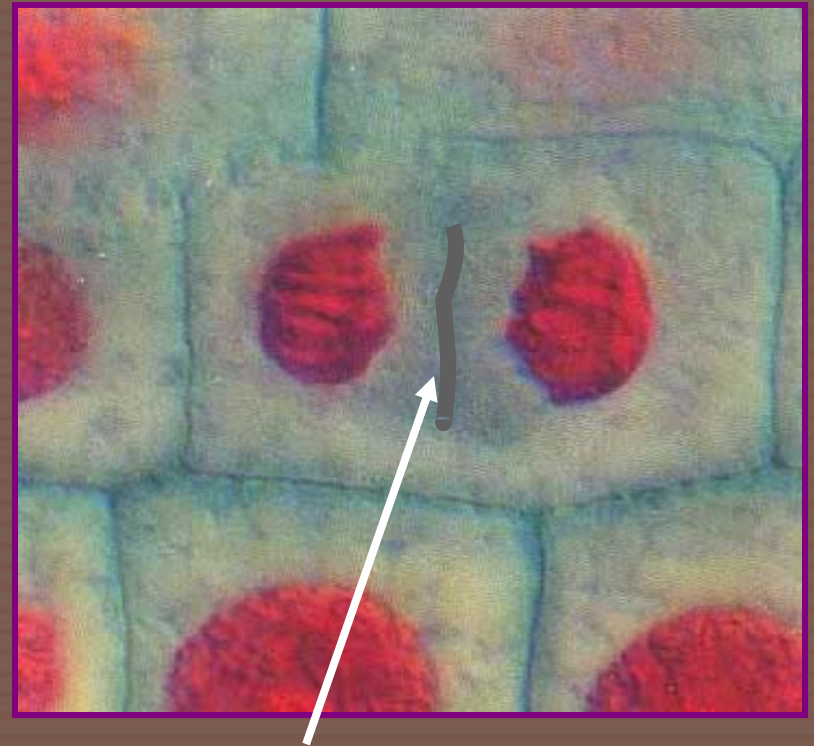
- *End up with one set of single-stranded *x*somes at each pole*



TELOPHASE - final phase

1. *Xsomes uncoil to become single strands (chromatin) again*
2. Result - *2 new nuclei w/ same set of genetic info. as parent cell....*

....but division of cell not complete....

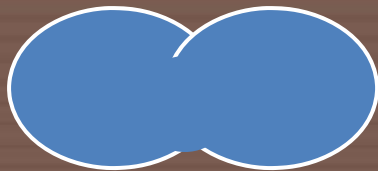


CELL PLATE: splits plant cells apart

Cytokinesis-

Div. of cytoplasm following mitosis

- *Animal cell - microfilaments in mem. contract causing plasma mem. to **pinch in** at center*



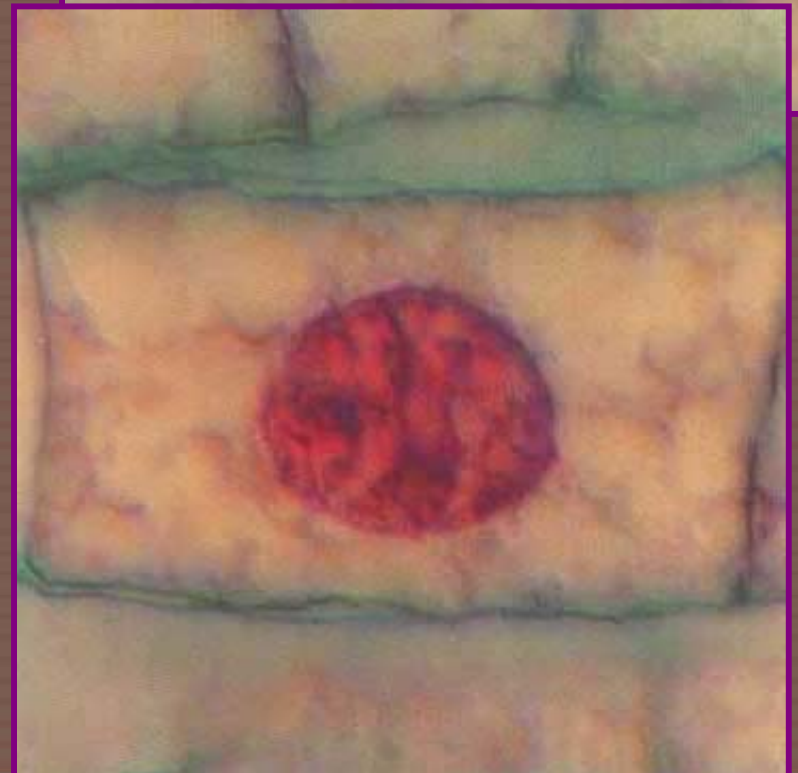
- *Plant cell - do not pinch, wall too rigid - **cell plate** forms in middle*



- *Daughter cells will then move into Interphase & start the whole process over again...*

THE CELL CYCLE

- INTERPHASE
AGAIN:
 - *Process starts all over with 2 new daughter cells – they split into 4 – then 8 – then 16 – then 32 etc.*



ANIMAL CELL DIVISION



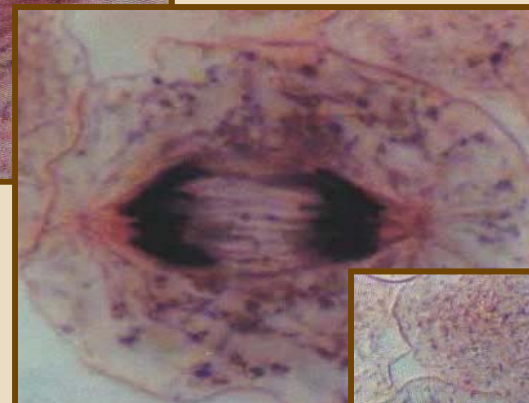
INTERPHASE



PROPHASE



METAPHASE



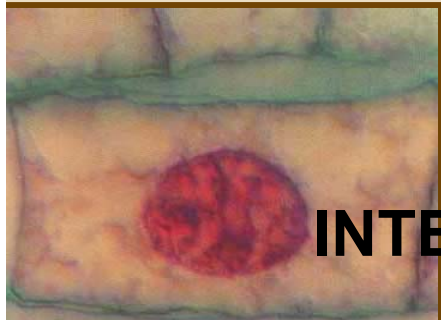
ANAPHASE

Animal cells separate by pinching membrane in → CYTOKINESIS

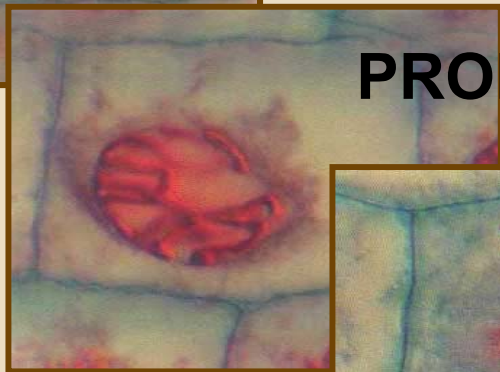


TELOPHASE

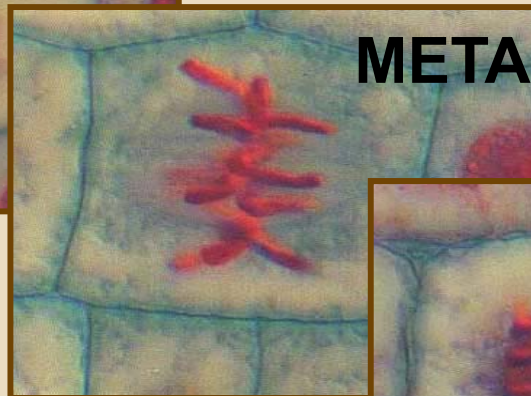
PLANT CELL DIVISION



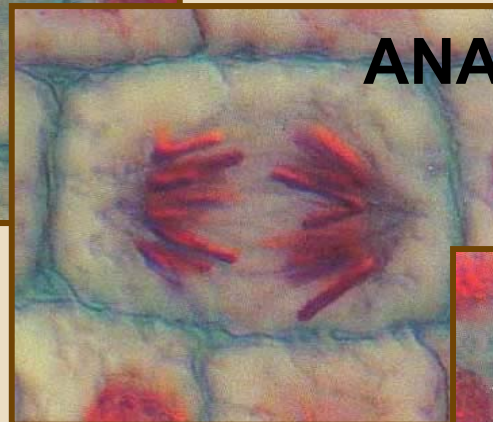
INTERPHASE



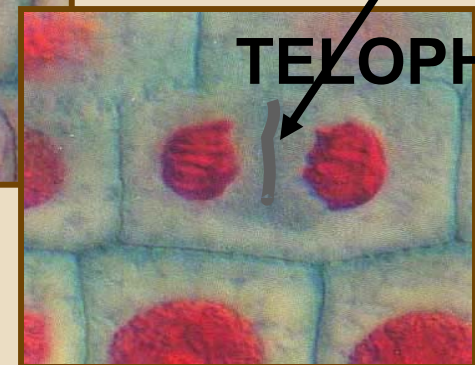
PROPHASE



METAPHASE



ANAPHASE



TELOPHASE

Plants cells are separated by a cell plate