Quick Review -

- Meiosis - division of cells which results in the production of gametes
- Gametes - also known as sex cells, germ cells, or spores; cells of sexual reproduction, which contain only half the chromosomes of a normal cell highered.mcgraw-hill.com/sites/0072549238/

  student_view0/glossary.html
- Chromosomes - Threadlike bodies found in the nucleus, or center part, of a cell that carry the information of heredity. www.sharedexperience.org/Glossary.lasso

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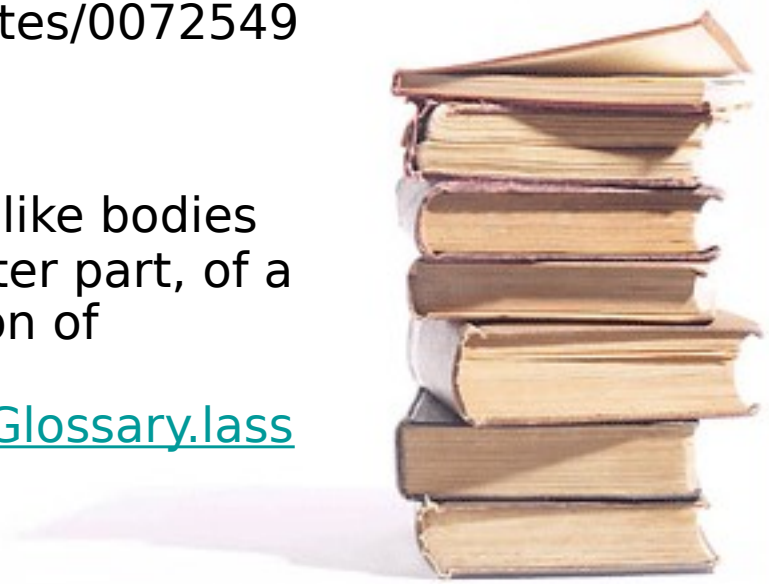


Sexual Reproduction

Definition:

1. Process in which two cells, termed gametes, come together to form one fertilized cell that contains genetic information from both parental cells.
   ucbiotech.org/glossary/

2. Production of offspring whose genetic constitution is a mixture of that of two potentially genetically different gametes.
   evolution.unibe.ch/teaching/GlossarE.htm

- Q: How many of you have more than one parent?

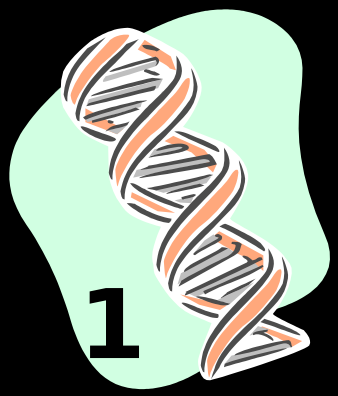
– then, everyone in this room is a product of sexual reproduction

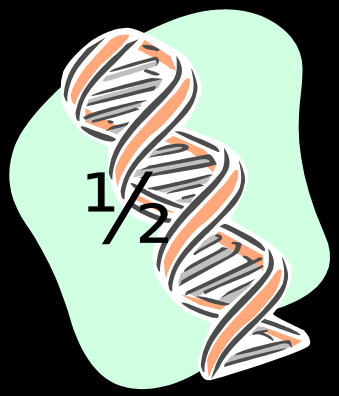
AnimationFactory.com

Characteristics of Sexual Reproduction

- Requires a female and male parent (i.e. it takes two to tango)

- Q: Why do we need more than 1 parent?





Characteristics of Sexual Reproduction

- Requires a female and male parent
- Each parent donates ½ of the Chromosomes/Genes/DNA

- So, by what we've discussed, in sexual reproduction "mom" donates half, and "dad" donates half. How does this happen?

Characteristics of Sexual Reproduction

- Requires a female and male parent
- Each parent donates ½ of the Chromosomes/Genes/DNA
- Requires *fertilization* - the combining of gametes

- Now, nine months later, you come out kicking and screaming (and dancing). To which parent do you look exactly alike? How about your siblings? Do you look exactly alike them?

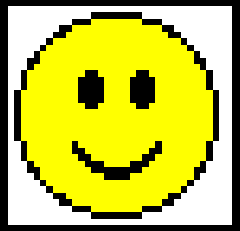
Take a moment to write down one trait that is different and in what way it is different.

Dancing baby graphics and music courtesy of MegaBaby.com

Characteristics of Sexual Reproduction

- Requires a female and male parent
- Each parent donates ½ of the Chromosomes/Genes/DNA
- Requires *fertilization* - the combining of gametes
- Produces *genetic diversity* - variation among and within species that is attributable to differences in hereditary material. www.for.gov.bc.ca/hfd/library/documents/glossary/G.htm

- Now, lets talk about this diversity. My sister has a big nose. She’s not too thrilled with having this big nose. So let’s try to convince her it’s a good thing. Write down a reason it might be good to have a big nose.



Possible Reason:

Let’s run with the answer that she would have a better ability to pick up the scent of food. What would happen if the food supply suddenly decreased and no one, including my sister, had a big nose that could sense this food supply?

EXTINCTION!!!!

But, my sister does have a big nose. So the human species is saved. Kinda makes big noses pretty attractive now, doesn’t it?

So what can we conclude about Sexual Reproduction?

- it produces diversity
- diversity ensures survival of a species in an environment that changes

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