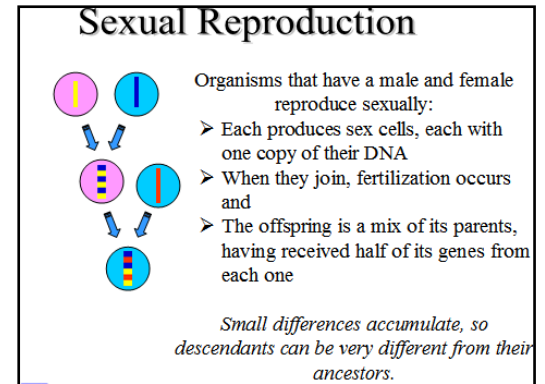


Asexual And Sexual Reproduction

A simple but powerful set of PowerPoint notes. The goal of these notes is to help students understand that asexual reproduction leads to clones and sexual reproduction produces variations.

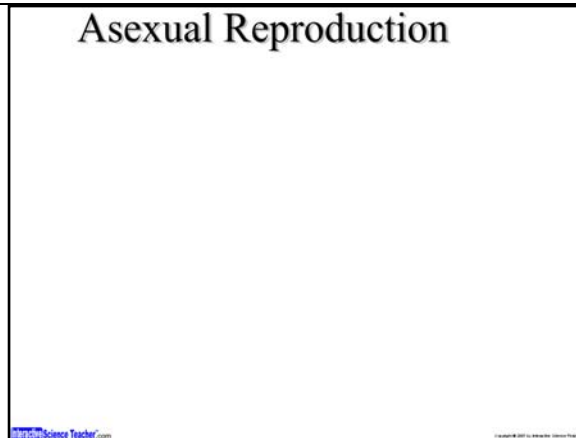
Materials- colored pencils

1. Give students a blank sheet of copy paper, unless you're giving them the Student Handout (see last page).



2. At the top put the title “Asexual Reproduction”.

This is also available as a PowerPoint (see last page).



3. Have students copy the words shown and draw the figure with colored pencils. The red squiggly represents the DNA inside a simple organism, like yeast or bacteria.

On their paper, students can just draw a circle with their pencil, then draw the DNA any color they choose and not worry about shading in the circle.

Asexual Reproduction



Some organisms, such as yeast and bacteria, reproduce asexually:

4. Add the next line of notes and draw another segment of DNA beside the first.

This represents the first stage of reproduction when the DNA gets duplicated in preparation for the cell division.

Asexual Reproduction

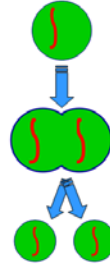


Some organisms, such as yeast and bacteria, reproduce asexually:

›First, it copies its DNA

5. When that cell divides, each new one gets a copy of the DNA.

Asexual Reproduction



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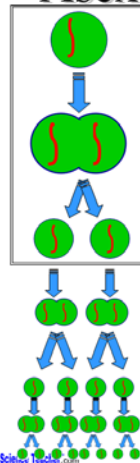
›Then it divides in half, forming 2 cells

›Each cell gets a copy of the DNA

6. And that keeps repeating over and over. 5 generations later the DNA is still identical to the first generations.

That's basically how asexual reproduction works.

Asexual Reproduction



Some organisms, such as yeast and bacteria, reproduce asexually:

›First, it copies its DNA

›Then it divides in half, forming 2 cells

›Each cell gets a copy of the DNA

›Those then reproduce the same way

All are identical to the original parent!

Sexual Reproduction

7. Title the next section “Sexual Reproduction”.

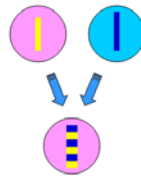
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8. From the start, things already look different. We have two different sets of DNA vying to get into one place. The result is offspring that’s a mix.

Another lesson that takes this idea much further is “Diluting Your DNA”.

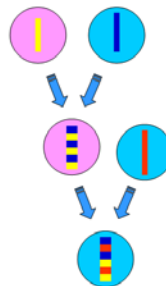
Sexual Reproduction



Organisms that have a male and female reproduce sexually:

- Each produces sex cells, each with one copy of their DNA
- When they join, fertilization occurs and
- The offspring is a mix of its parents, having received half of its genes from each one

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9. That offspring matures, and then its DNA mixes with yet another set. The result is even more diluting.

Small differences accumulate, so descendants can be very different from their ancestors.

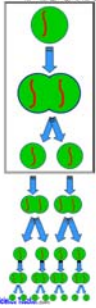
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PowerPoint- lead your students through the lesson click-by-click

Asexual Reproduction

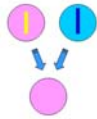


Some organisms, such as yeast and bacteria, reproduce asexually:

- > First, it copies its DNA
- > Then it divides in half, forming 2 cells
- > Each cell gets a copy of the DNA
- > Those then reproduce the same way

All are identical to the original parent!

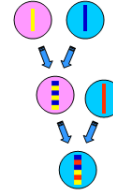
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Student Handout

Asexual Reproduction



Sexual Reproduction