**DNA Replication**

Each time a new cell is made, the cell must receive an exact copy of the parent cell DNA. The new cells then receive the instructions and information needed to function. The process of copying DNA is called **replication**. Replication occurs in a unique way – instead of copying a complete new strand of DNA, the process “saves” or conserves one of the original strand. For this reason, replication is called semi-conservative. When the DNA is ready to copy, the molecule “unzips” itself and new nucleotides are added to each side.

The image showing replication is similar to the DNA and mRNA coloring. Note the nucleotides are shown as their 3 parts – sugar (blue), phosphate (pink) and one of the four bases (color codes are above). Color the replication model on the second page. Notice that several **nucleotides** are floating around, they are waiting to pair up with their match.

The boxed section shows two new strands of DNA. Color the old strand (including its base) red and the new strand (including its base) green.

Color the thymines orange. T Color the adenines green. A  
Color the guanines purple. G Color the cytosines yellow. C

