**Name:**

**RNA vs DNA**

**RNA DNA**

**DNA TRANSCRIPTION (summary notes)**

The DNA helix is opened at the position of the gene.

The helix is unwound by RNA \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

RNA \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are found in the nucleus space.

One of the polynucleotide chains act as a template for mRNA

Free nucleotides base pair with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ nucleotides

The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ bonds on the mRNA chain are formed by RNA polymerase

mRNA is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ polynucleotide chain but the base thymine is replaced by Uracil.

After the mRNA is complete the molecule detach's from the DNA and leaves the \_\_\_\_\_\_\_\_\_\_\_ for the cytoplasm \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

The DNA \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ reforms.

**The DNA Code**

You can treat the genetic code like a dictionary in which \_\_\_\_\_\_\_\_\_\_\_\_\_ words in one language (the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ possible triplets of a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ -letter alphabet) are mapped onto \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ words in another language (twenty amino acids plus a punctuation mark). *Yet the genetic code is in fact literally \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in all \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, plants and \_\_\_\_\_\_\_\_\_\_\_\_\_\_ that have ever been looked at. All living things are certainly descended from a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ancestor'*

R.Dawkins

The genetic code is first transcribed into \_\_\_\_\_\_\_\_\_\_\_\_\_\_. The mRNA codons can be mapped to a specific \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The mapping is 64 triplets: 64 codons: 21

**Degenerate code:**

DNA is a degenerate code since there are more than one \_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_ that maps to an amino acid or punctuation.

mRNA codon \_\_\_\_\_\_\_\_\_ codes for Methionine and is a \_\_\_\_\_\_\_\_\_\_\_ signal for translation.

mRNA codon UAA, UAG, UGA are all \_\_\_\_\_\_\_\_\_\_\_\_ codons \_\_\_\_\_\_\_\_\_\_\_\_\_ the code

**Notes / Diagrams from what you need to know today: 17.1 and 17. 2 (yellow bk – p.123)**