

Name: _____

Date: _____

Worksheet 4 Chromosome, DNA & Gene (Nelson p.30-31)

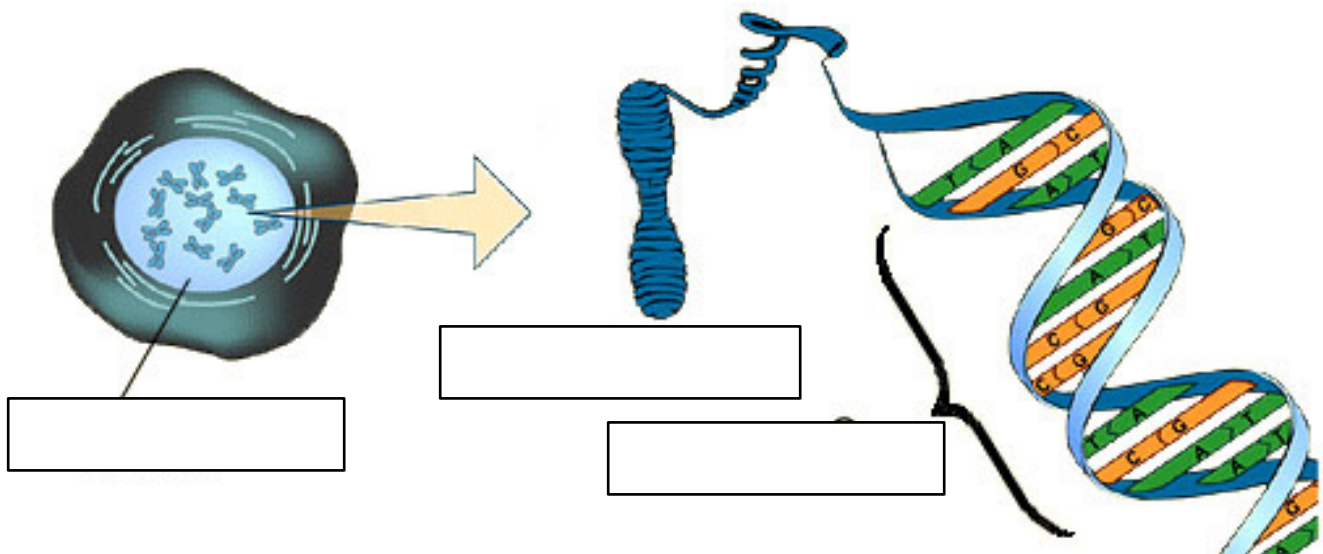
1. Match the given vocabulary with the explanations or descriptions below.

DNA **chromosomes** **gene** **nucleus**

- (a) _____ are made from DNA.
- (b) _____ are materials found in chromosomes that carry the genetic code that determines the characteristics of a living thing.
- (c) A _____ is a short section of DNA.
- (d) Chromosomes are located in the _____.

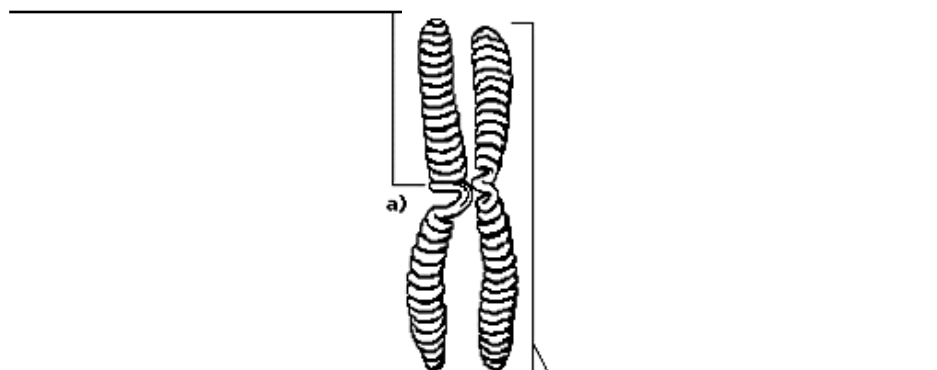
2. Label the following diagram using the vocabulary below to show the relationship between cell, its nucleus, chromosomes and genes.

chromosomes **gene** **nucleus**

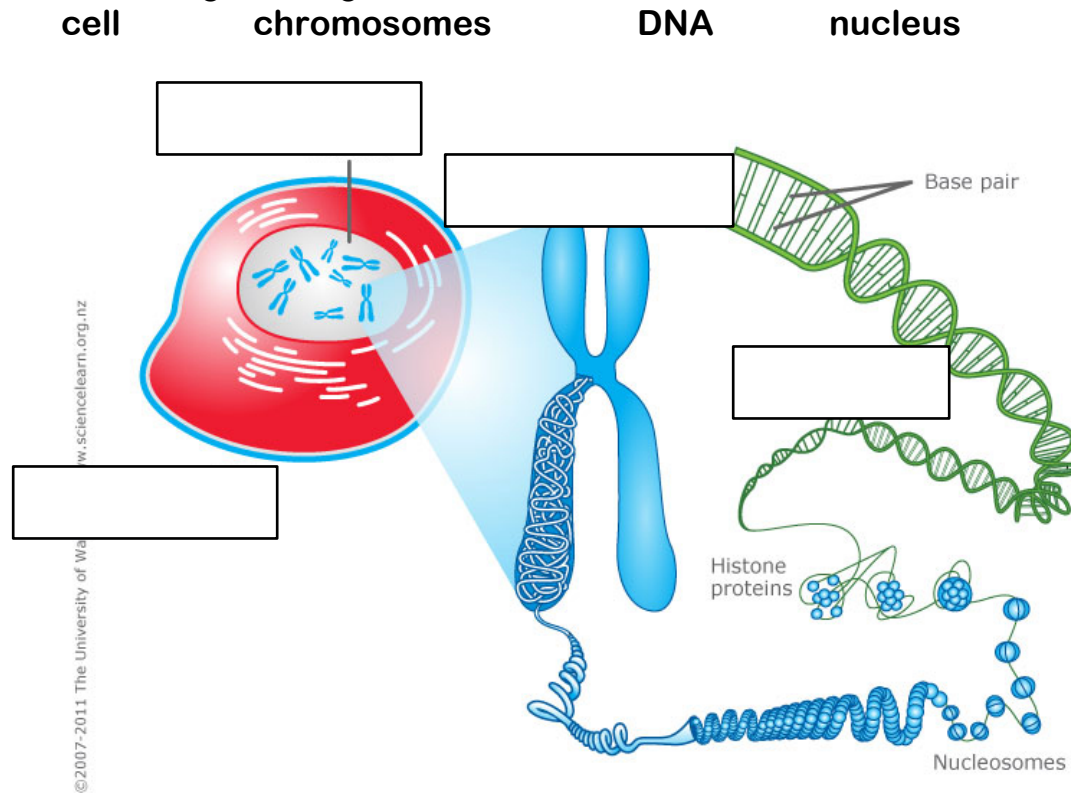


3. Label the diagram using the word list below.

centromere **chromosome**



4. Label the diagram using the word list below.



Complete the sentences below.

1. **DNA** is important because _____

2. Humans have _____ (how many?) chromosomes; _____ (how many?) pairs of chromosomes.

3. Every child receives one set of chromosomes from his _____ and another set of chromosomes from his _____

4. If a cell of a cow contains 60 chromosomes, each parent will contribute _____ (how many?) chromosomes to the cow during fertilization.

5. **DNA Mutation** is _____

6. **Mutagen** is _____
Examples are _____ and _____

7. What happens if a **mutation** occurs in a **sperm** or an **egg cell**?
If a mutation occurs in a sperm or an egg cell, _____
