

**STATION 1**  
VOCABULARY

Make sure you know what each of these words mean. If you know, check the box. If you don't, ask someone in your group and write down the definition

- Amino acid
- Asexual reproduction
- Binary fission
- Blastocyste
- Budding
- Cell Cycle
- Centromere
- Chromatid
- Chromatin
- Chromosome
- Daughter cell
- Diploid
- DNA
- Embryonic stage
- Fertilization
- Fetal stage
- Fragmentation
- Gametes
- Grafting
- Haploid
- Meiosis
- Mitosis
- Nucleotide
- Parent cell
- Sexual reproduction
- Spindle fibre
- Spores
- Vegetative Propagation
- Zygote

**STATION 2**  
DNA

What does the acronym 'DNA' stand for?

What is the complimentary base pair for the following strand of DNA?

A C T G A T G G C G A T T A A T C G C

Draw and label a nucleotide.

What is the role and purpose of DNA?

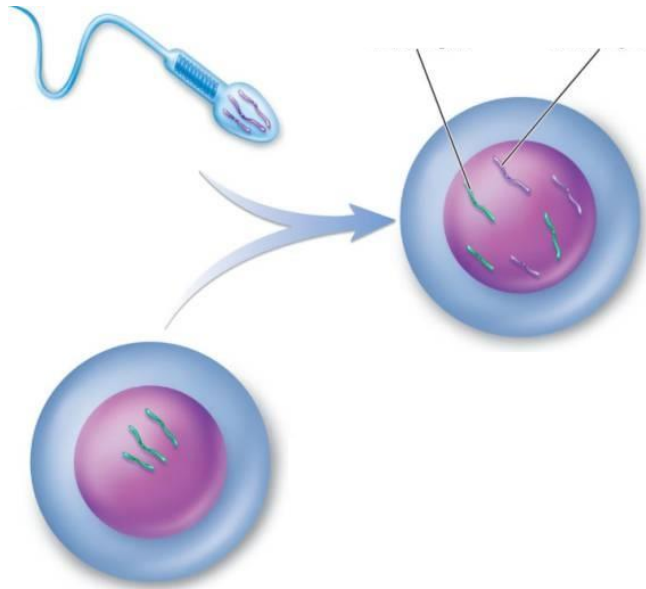


**STATION 5**  
SEXUAL REPRODUCTION

- Determine how many chromosomes are in the gametes and body cells of the following organisms:

Organism	Number of chromosomes in the gametes	Number of chromosomes in the body cells
Dog		78
Housefly		12
Cow	30	
Deer	35	

- What process must cells undergo in order to produce gametes?
- Label the following diagram with the following terms: sperm cell, egg cell, zygote, haploid, diploid, maternal chromosome, paternal chromosome



**STATION 6**  
MEIOSIS

- Which stage of meiosis does each of the following statements describe?
  - Nuclear membrane starts to disappear and homologous chromosomes pair
  - DNA condenses into chromosomes
  - Two nuclei are formed
  - Chromosomes separate and move to opposite ends of the cell
  - Homologous chromosomes line up in two lines in the middle of the cell
  - DNA exists as chromosomes but not as homologous pairs
- In order for chromosomes to move, they need help from structures in the cell.
  - Which structure helps these chromosomes move in the cell?
  - Where do these structures attach to on the chromosome?
- What is the end result of meiosis?