GENETICS AND EVOLUTION CH 3+5

1) **HEREDITY**--the passing of traits from parents to offspring
2) **SELF-POLLINATING**--a plant that mates with itself and makes clones (1 parent)
3) **CROSS-POLLINATING**--a plant that gets pollen from a different plant (2 parents)
4) **DOMINANT TRAIT**--trait that is always expressed
5) **RECESSIVE TRAIT**--trait that can be masked by the dominant trait
6) **PHENOTYPE**--an organism's appearance (blue eyes, brown hair, tall, etc)
7) **GENOTYPE**--an organism's genetic code (bb, BB) the letters that represent the alleles you got from your parents
8) **HOMOZYGOUS DOMINANT**--[aka pure dominant] GG
9) **HOMOZYGOUS RECESSIVE**--[aka pure recessive] gg
10) **HETEROZYGOUS**--[aka hybrid] Gg
11) **PUNNETT SQUARE**--used to organize all the possible outcomes of offspring from a set of parents
12) **DNA**--instructions for all living organisms that is shaped like a twisted ladder
13) **CHROMOSOME**--a coiled glob of DNA (if one cell's DNA is stretched out it is 6 feet long!)
14) **GENE**--one snippet of the twisted ladder that codes for a certain trait (makes a specific protein)
15) **ALLELE**--one of two genes that are partners. One allele comes from the father, one from mother
16) **PROBABILITY** -- the likelihood that a possible future event will occur
17) **INCOMPLETE DOMINANCE**--alleles blend together to form a NEW phenotype (red+white=pink)
18) **SEXUAL REPRODUCTION**-- 2 parent reproduction. Creates a variety of offspring
19) **ASEXUAL REPRODUCTION**-- 1 parent reproduction. Creates clones
20) **BINARY FISSION**(1)--cells split in half, 2 perfect replicas
21) **BUDDING**(**2**)--offspring sprouts out of the parent then breaks off
22) **VEGETATIVE REPRODUCTION**(3)--rhizomes or bulbs that make clone plants in new places
23) **FRAGMENTATION(**4)--broken pieces of the parent grow into offspring
24) **PARTHENOGENESIS**(5)--an egg turns into offspring even though it has not been fertilized by a male
25) **HOMOLOGOUS CHROMOSOMES**--chromosomes with the same genes, one comes from dad, one from mom
26) **MITOSIS**--a copying process where the cells come out with the normal amount of chromosomes
27) **MEIOSIS**--a copying process where the cells come out with 1/2 the original chromosomes
28) **SEX CHROMOSOMES**--xx=female xy=male
29) **PEDIGREE**--a diagram for tracing a trait through generations
30) **CARRIER**--a parent who has a bad gene, but does not have the disease
31) **ADAPTATION**-- characteristic that helps an organism survive
32) **EVOLUTION**-- change in a species over time
33) **TRAIT**-- specific characteristic that is passed from parent to offspring
34) **SELECTIVE BREEDING**-- when humans select certain traits to be passed on, and then mate those particular parents
35) **NATURAL SELECTION**-- the process where inherited traits make an organism survive better, and thus to pass on its genes to future generations
36) **A OVERPRODUCTION**-- producing many offspring
37) **B VARIATION**-- all of the offspring are slightly different
38) **C SURVIVAL**-- only the offspring with the best genes survive
39) **D REPRODUCTION**-- only the survivors mate and pass on their good traits
40) **RESISTANCE**-- the ability to stay alive when faced with a harmful chemical
41) **GENERATION TIME**-- the time it takes for your offspring to produce offspring
42) **COMPETITION**-- when species fight for food, shelter, space, or mates
43) **SPECIATION**-- the creation of a new species
44) **SEPARATION**-- when part of a population gets separated from the rest
45) **ADAPTATION**-- different traits start showing up in a population in order to fit into the environment better
46) **GENETIC MUTATION**-- when a gene gets altered so that a new trait shows up
47) **GENETIC VARIATION**-- the idea that all the individuals in a population are slightly different from each other