

7.14A (Heredity/Genetics),
7.14B (Reproduction), 7.12C
(Organization)

Test Review Answer Key

Question #1

What is asexual reproduction?

- requires only 1 parent and the offspring are an exact copy of the parent

Question #2

What are the methods of asexual reproduction?

- Binary fission
- Budding
- Vegetative Propagation

Question #3

What type of offspring does asexual reproduction produce?

- Uniform, genetically identical, clone, exact copy

Question #4

What is sexual reproduction?

- A method of reproducing that requires two parents (male & female), who combine genetic material

Question #5

What are the methods of sexual reproduction?

- Pollination
- External Fertilization
- Internal Fertilization

Question #6

What type of offspring does sexual reproduction produce?

- Diverse, genetically different from each parent

Question #7

What is heredity?

- Passage of genetic material from one generation to the next

Question #8

Where do organisms get their genetic material from?

- Their parents

Question #9

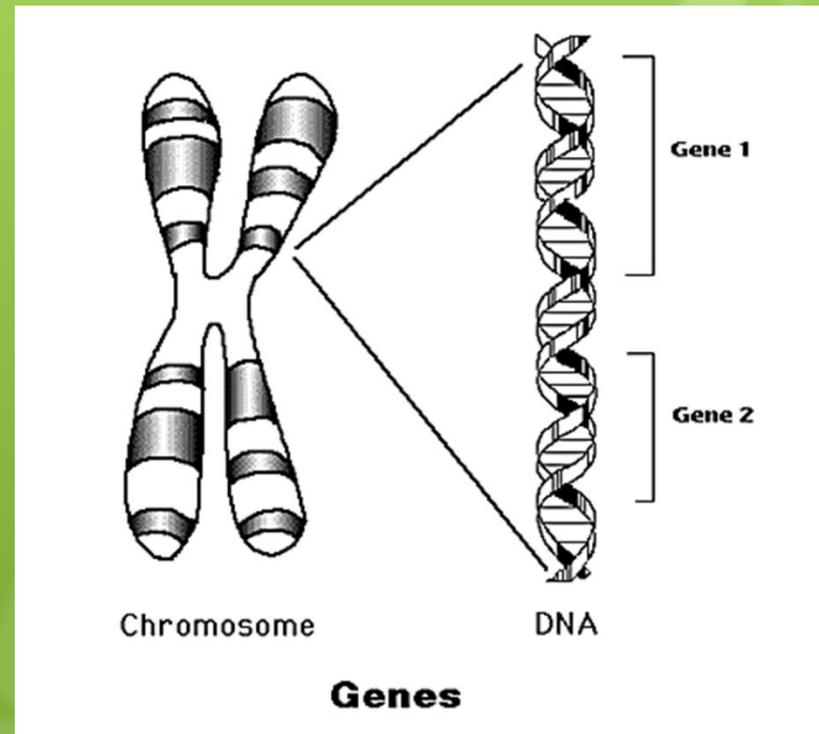
What are genes?

- Sections of DNA combined

Question #10

On what structure are genes located?

● Chromosomes



Question #11

Where are genes stored in the cell?

Nucleus

Question #12

What is a trait?

- A physical or behavioral characteristic that can be observed because of genes.

Question #13

What is a genotype?

- Genotype is the possible allele combinations
 - Ex. Possible Genotype for Brown eyes: BB, Bb
 - Ex. Possible Genotype for Blue eyes: bb

Question #14

What is a phenotype?

- Phenotype is the actual physical appearance, because of the genotype.
 - Ex. Possible phenotype for BB, Bb: Brown eyes
 - Ex. Possible phenotype for bb: Blue eyes

Question #15

What is a dominant trait?

- Dominant traits are represented by a capital letter.
- Dominant genes hide recessive genes when both are inherited by an organism.
- What you see if present.

Question #16

What is a recessive trait?

- Recessive genes (for the same trait) are represented by THE SAME lower case letter.
- In order for a recessive gene to be expressed (seen) you have to have two.
 - Ex. To have blue eyes: bb

Question #17

What does homozygous mean?

- A PUREBRED organism has two of the same genes for a trait
 - Ex. Homozygous dominant: two capital letters (RR)
 - Ex. Homozygous recessive: two lowercase (rr)

Questions #18

What does heterozygous mean?

- A HYBRID organism has two different genes for a trait.
 - Ex. You will have a capital and a lowercase letter: Rr
 - The dominant is what shows through

Question #19

If you have a heterozygous allele pairing, which trait will show through?

The dominant!

Question #20

Flower color: Purple is dominant (P) and white is recessive (p)

A PP father and a PP mother:

- Possible genotype of offspring:
 - 100% PP
- Possible phenotype of offspring:
 - 100% Purple

	P	P
P	PP	PP
P	PP	PP

Question #21

Pod color: Green is dominant (G) and yellow is recessive (g).

A Gg father and a GG mother:

- Possible genotype of offspring:
 - 50% GG, 50% Gg
- Possible phenotype of offspring:
 - 100% Green

	G	G
G	GG	GG
g	Gg	Gg

Question #22

What are the 5 levels of organization in plants and animals?

- Cells
- Tissue
- Organs
- Organ Systems
- Organisms

Question #23

What is a cell?

- Basic structure and functional units in living things

Question #24

What is tissue?

- Made up of cells that are similar in structure and function and which work together to perform a specific activity

Question #25

What is an organ?

- Made up of tissue that work together to perform a specific function

Question #26

What is an organ system?

- Groups of two or more organs that work together to perform a specific function for the organism.

Question #27

What is an organism?

- Living things that carry out all basic life processes

Question #28

Draw the levels of organization below using arrows to show the build.

- Cells -> Tissue -> Organs -> Organ Systems -> Organisms