

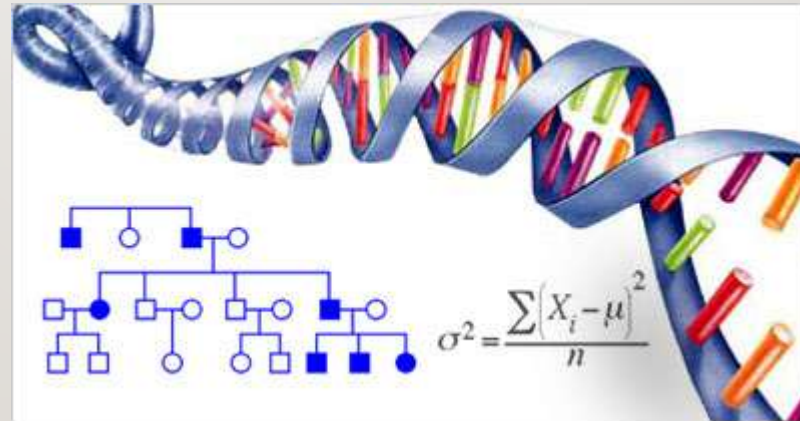
WARM UP UNIT 4



WARM UP

01/04/17

- WHY DO WE LOOK SIMILAR (BUT NOT EXACTLY THE SAME) TO OUR PARENTS AND SIBLINGS?



1. Sam got his finger amputated in an accident. Two year later he got married and his wife is pregnant now. He is concerned if his child is going to born with amputated finger. What is your answer to his question?
- 2. What is the difference between genetics and heredity?
- 3. Danny is a tall man and married to a tall women. He wants to know if their kids be tall or not?



- Gene is a.....

a] another form of chromosome

b] section of DNA

c] structure that stores DNA

- Chromosomes are

A] structures that store DNA
nucleus

B] are present in

C] help in passing down of traits

d] all of it



Sam is tall. His alleles for height are Tt. His wife Tina is short. Her alleles for height are tt.

- Write their phenotypes and genotypes.
- Out of Sam and Tina who is purebred and who is hybrid?

01/10/17

- SAM'S ALLELES FOR EYE COLOR ARE bb. [B= BROWN EYES b = blue eyes]
- What is his phenotype and genotype?
- Is he purebred or hybrid?
- What does he need to get brown eyes and why?

Having freckles is a recessive trait. [N = NO freckles
and n = freckles].

1. Nick has freckles so what is his genotype?
2. Is he purebred or hybrid?
3. What does he need to have skin without freckles?

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Nick is tall with genotype Tt .

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1. Is he purebred for his height?
 2. What is his recessive allele for his height?
 3. What is his phenotype?
 4. What does homogenous and heterogenous means?
 5. What is the difference between genes, genetics and heredity?



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- Which one is homozygous dominant genotype?

A] Dd b] dd c] DD

- EACH CELL IN OUR BODY HAS 46 CHROMOSOMES. How many chromosomes are there in our sex cells?

A] 46 b] 98 c] 23

- Which of the following is not contained inside our cells?

A] DNA b] genes c] blood d]
chromosomes



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- Is it homozygous or heterozygous?

A] GG B] Gg c] gg

- Straight hair is dominant over curly hair. Give the phenotype for all the given genotypes.

A] Cc b] cc c] CC

- TALL IS DOMINANT TO SHORT . give all the possible genotypes for tall height.

WARM UP

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- Having freckles is a recessive trait. Two people reproduced and had a child with freckles. Write the genotype for parents. Father genotype.....
Mother genotype.....
- Nick is homozygous dominant tall and his wife is heterozygous tall. Write their genotypes.
- Is it homozygous or heterozygous?
a] CC b] Cc c] cc
- Black hair is dominant over blonde . Give all the possible genotypes for black and blonde hair.

- Expression of alleles in an organism is called:-

A] genotype b] phenotype c] heredity

- Combination of alleles to produce a trait is called:

A] genotype b] phenotype c] heredity

- Nick is heterozygous tall and his wife is short. [tall height is dominant trait,] write the genotype for both of them.
- Black eyes are dominant over blue eyes. Write all the possible genotypes for black and blue eyes.



- How do you represent/ write the dominant and recessive trait?
- How many alleles do we have for every trait?
- Who decides the gender of the child[father or mother] why?
- Are Plant seed packed in a packet alive or dead?



WARM UP

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- Decide if the given genotypes are homozygous or heterozygous.

A] DD

B] Dd

c] dd

- How do you get traits from both the parents?
- One parent is homozygous recessive for a given trait and the other parent is homozygous dominant. Can they have a child with recessive trait.[make a Punnett square to explain your answer.]
- What do you need to produce a recessive trait.
 - a] two dominant genes
 - b] two recessive genes
 - c] one dominant + one recessive gene]

1. What controls the traits in organisms?

a] cell membrane

b] Punnett square

c]

genes

2. The outward appearance of trait is called.....

3. Is a device for predicting the probabilities of possible genotypes.

4. What happens when genes in an organism are mutated?



- Give an example of co- dominance in humans.
- Give an example of incomplete dominance in humans.
- How do WE write co-dominant genes?
- What is selective breeding?

QUIZ INSTRUCTIONS

- Use your own paper.
- You don't have to write questions.
- please stay seated, If done early
- Question 1-6 every section[a,b,c,d is 3 points each]
- Questions 7 and 8 are 10 points each.

- Consider that In elephants the strait trunk is dominant over curled trunk.

What would be the results of a cross between a recessive male and a heterozygous female?

1. Write the genotype of both the parents.
2. Draw Punnett square
3. Write all the possible genotypes for offsprings.
4. Write the percentage of all the phenotypes.



ANSWERS

- 1 a] RR , rr
- 3. a] ss , Ss
- 5 . A] WW, Ww

Brown eyes are dominant[B] over blue eyes [b]. A brown man marries a blue eyed woman and they have three children, two of them have brown eyes and one has blue eyes.

1. What is man's [father's] genotype?
2. Draw the Punnett square that illustrates this marriage.
3. What are the genotypes of children?



- What is the other word used for heterozygous?

A] purebred

b] hybrid

- we can get hybrids with.....

A] asexual reproduction
reproduction

b] sexual

- What is sexual reproduction?



- Zygote is formed as a result of.....

A] asexual reproduction b] sexual reproduction

c] both

- Which word does not belong

A] budding b] fragmentation c]

fertilization

- How are asexual and sexual reproduction different?



- Name the four types of asexual reproduction?
- What the two advantages and one disadvantage that sexual reproduction has over the asexual reproduction?
- What is a zygote?

Directions: Copy the chart below onto a sheet of paper and complete. Answer the questions in complete sentences.

- Make a Venn Diagram Comparing and Contrasting Sexual and Asexual Reproduction
- Name and explain two advantages to sexual reproduction and two disadvantages.

Name and explain two advantages to asexual reproduction and two disadvantages

Name	Type of Reproduction (Sexual or Asexual)	What Happens?	Organisms that use this type?
Binary Fission			
Fragmentation			
Budding			
Pollination & Fertilization			
Sexual Reproduction			

- If plants are reproducing sexually it means they are producing off springs with.....

A] same DNA from a parent

b] DNA from both the parents

- Paramecium reproduces using binary fission which means they reproduce using.....

A] sexual reproduction

b] asexual reproduction

c] both

- Sex cells always carry..... the number of chromosomes as compared to body cells.

A] double

b] half

c] same



- DIFFRENCIATE BETWEEN MITOSIS AND MEIOSIS?
- NICK IS HETEROZYGOUS FOR BROWN EYES. WHAT IS HIS GENOTYPE?

A] bb

B] BB

C] Bb

- What are the advantages of sexual reproduction?
- What are the advantages of asexual reproduction?



- You have to score at least 80% on every assignment. You can practice as many times as it takes you to score that .it will be added into my grade book.

- Small plants sprouting on a potato are example of..... Type of..... reproduction.
- Name the three organisms which reproduce by binary fission.
- What are acquired traits? Give examples.
- What are inherited traits ? Give examples.



- What is a cell?
- ---

What is an organism?
- How are organisms dependent on their environment?