

25 Multiple choice questions

Term

Why do all offspring have brown fur?

1 of 25

- Because the allele for black fur is dominant
- Because the allele for brown fur color is recessive
- Because the allele for brown fur color is dominant
- Because the allele for black fur color is dominant

Term

with that in mind, can you now determine if Joseph's children will inherit his colorblindness?

2 of 25

- Definitely yes
- We cant know for sure
- Definitely no
- Highly likely to inherit

Term

Knowing that Joseph is colorblind, what is his genotype?

3 of 25

- Xcx
- XcY
- Xcyc
- No, None Of Them Will Be Colorblind

Term

What does it mean when a trait is independent of another trait?

4 of 25

- The inheritance of a trait does not affect the inheritance of another trait
- The inheritance of a trait is always passed down together with another trait
- The inheritance of a trait is linked to another trait
- The inheritance of a trait depends on environmental factors

Term

During gamete formation, two alleles will end up in different gametes due to?

5 of 25

- The law of segregation
- We cant know for sure
- 50% from each parent
- The one on the left

Term

Do you think colorblindness is a recessive trait?

6 of 25

- XcY
- Yes
- Aa
- It has no effect

Term

What is the phenotype of an individual?

7 of 25

- Their observable characteristics
- Their chromosomes
- An alternative form of a gene
- Their genes

Do the predicted phenotypes from the Punnett square agree with the experiment you performed earlier?

- Yes
- XcY
- Gametes
- We cant know for sure

What is the name of the haploid cells that carry the genetic information from each parent?

- Alleles
- Gametes
- Autosomes
- Spores

(put this in)

- an alternative form of a gene

Which one of these cells is male?

- The one at the bottom
- The one on the left
- The one in the center
- The one on the right

Can you tell me if eye color has an effect on colorblindness?

- It decreases
- It activates glycogen phosphorylase
- It has no effect
- It increases

What is the genotype of the offspring?

- The red section
- Their observable characteristics
- Their genes
- Aa

What is an allele?

- a mutated version of a gene
- an alternative form of a gene
- a deleted form of a gene
- a duplicate copy of a gene

(Just put this in, its the answer)

- Their genes

(and put this in)

- an offspring with parents from two different breeds

What is the genotype of an individual?

- Their parents
- Their chromosomes
- Their genes
- Their environment

What is the gene for colorblindness represented by?

- The small green chromosome
- The blue chromosome
- No, none of them will be colorblind
- The red section

If Joseph marries a girl who doesn't carry the gene for colorblindness, will his children be colorblind?

- The one on the left
- No, none of them will be colorblind
- Genes segregate independently during gamete formation
- The law of segregation

How do we represent dominant and recessive alleles?

- Bold letters for dominant, regular letters for recessive alleles
- Only uppercase letters for all alleles
- Capital letters for dominant, lowercase letters for recessive alleles
- Italic letters for dominant, underlined letters for recessive alleles

What percent of genetic information is passed on from parents to their offspring?

- 100% from one parent
- 75% from one parent, 25% from the other
- 25% from each parent
- 50% from each parent

The law of independent assortment states that

- Genes segregate independently during gamete formation
- Genes are linked and cannot segregate
- Genes are passed down in identical pairs
- Genes are always inherited together

Why do all offspring have the same fur color?

- They possess unique mutations in the relevant genes
- They have the same alleles for the relevant genes
- They inherit different alleles for the same genes
- They have identical genes from one parent

Look at the offspring of the mice from the cross that we performed. How many brown and black mice are there?

- Two brown, two black mice
- Four brown, no black mice
- Three brown, 1 black mouse.
- One brown, three black mice

What is a hybrid?

- an offspring with identical genetic traits
- an offspring with mixed traits from the same species
- an offspring with parents from two different breeds
- an offspring from the same breed