Name: Score:

25 Multiple choice questions

Term 1 of 25

Why do all offspring have brown fur?

- **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 2 of 25

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

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

Term 3 of 25

Knowing that Joseph is colorblind, what is his genotype?

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

Term 4 of 25

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

- **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 5 of 25

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

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

Term 6 of 25

Do you think colorblindness is a recessive trait?

- **XcY**
- **Yes**
- **Aa**
- **It has no effect**

Term 7 of 25

What is the phenotype of an individual?

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

LIVEWORKSHEETS

Term 8 of 25

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

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

Term 9 of 25

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

- ○ **Alleles**
- ○ **Gametes**
- ○ **Autosomes**
- ○ **Spores**

Term 10 of 25

(put this in)

- ○ **an alternative form of a gene**
- ○
- ○
- ○

Term 11 of 25

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**

Term 12 of 25

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

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

Term 13 of 25

What is the genotype of the offspring?

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

LIVEWORKSHEETS

Term 14 of 25

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

Term 15 of 25

(Just put this in, its the answer)

-
-
- Their genes
-

Term 16 of 25

(and put this in)

-
- an offspring with parents from two different breeds
-
-

Term 17 of 25

What is the genotype of an individual?

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

Term 18 of 25

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

LIVEWORKSHEETS

Term 19 of 25

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

Term 20 of 25

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

Term 21 of 25

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

Term 22 of 25

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

Term 23 of 25

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

Term 24 of 25

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

Term 25 of 25

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

LIVEWORKSHEETS