

What Determines a Tiger's Color?

A tiger's genetic make up determines its color. It is believed that tigers have two alleles to determine their color. One allele from its mother and one from its father. When a tiger is white-striped, both of its alleles are white. It is called homozygous recessive (gg). If a tiger is golden and does not carry an allele for the white coloration they are homozygous dominant (GG). Tigers that carry an allele for each color type are called heterozygous (Gg). Heterozygous tigers and homozygous dominant tigers are both golden in color.

This is extremely rare in their natural habitat.

The golden cubs are also carriers (since they have one white allele and one golden allele).

Heterozygous golden tiger + Heterozygous golden tiger (both carriers for the white allele) =

- some golden cubs with two alleles for golden
- some golden cubs with one allele for white and one for golden
- some white cubs with two alleles for white

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Using the information provided on the previous page, create three punnett squares that show the resulting offspring. Draw a picture of each offspring and its alleles.

Male alleles = gg Female alleles = gg		

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