

Instructions:

In the chart below are the letters of DNA found at 3 different positions along chromosome #20, from eight different dogs:

4 solid-color & 4 white
boxer dogs boxer dogs



Analyze these data (below) at each of the 3 positions on chromosome #20 in the following way, and then fill in each empty square in the chart with a letter of DNA that you think you might find at that position in that dog, given that:

Position #1 is 100% correlated to coat color

Position #2 is not correlated to coat color

Position #3 is somewhat correlated to coat color

Note: There is **not** just **one** correct way to fill in this chart. Therefore, if your answers differ from those of another student in your class, that does not mean that one chart is filled in correctly whereas the other is not.

<i>Dog</i>	Position #1: 100% correlated to coat color	Position #2: Not correlated to coat color	Position #3: Somewhat correlated to coat color
<i>i</i> (white)	A	T	G
<i>ii</i> (white)			
<i>iii</i> (white)	A	T	G
<i>iv</i> (white)			
<i>v</i> (solid)	G	G	C
<i>vi</i> (solid)			
<i>vii</i> (solid)	G	G	C
<i>viii</i> (solid)			