		A STATE OF THE STA	Page No.:	YOUVA	
			Date:		
19/	11 -	MORGAN'S EXPERIMENT	The sol		
	1414	dophala the believer truit i'm	auka A		
	idi	Mongan Selected a species Prasophila n	nelanoga	ster	
		Foruit plies are prolific boreeders			/
		They have 4 paiers of cheromosomes.	News a		
	Ψ.	3 paires are autosomes and 1 paire	15 90 SCX	chrom	osar
1116	100	Along and Sandalana Sandalana	× sees		
	the	He detected a mutant fly, a mal	le with	disse	rest
		characteristics. The eyes were white	e instead	N 07 94	Ld_
	7	This was a noture consequence	1 trans	0	
		He first owned the mutant male	ban	ormal	,
		male to see which was dominan			
	0	All FI perogeny had ned eyes.			
	٠	Then he crossed glies from FI g		each	
1		other.	E Y'S		
- 3013	-	Eye colours in F2 gen was seg	regated	in c	er.
		imperject 3:1 ratio just as meno			
		But groungely are white eyed			
		generation were males.			
		o H Y X Y X	x Px	A. 1	
		RR X YY	•		
		X X X X	X MX		
		Ry			
		130- X"X - V	Y X		
		(RR Ry RY) (YY)			
		Lifeita			
		Red wruje			
		He test- crossed one of the re	od recian	1 E I	
		Jemale back to the oxiginal			
	-				
	+	The obtained both white and	red-li	jed	
	-	males and Jemales	1.4	·61-	
	-	. I White-eyes Jemales we	ou poss	ioie.	

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-	The solution to this lies in the	e fact that
1	in priasophila, the white eye	terait resides
	on the X cheromosome and is a	brent Jeram the
	on the X chromosome and	Privat 2000
	y chromosome.	re cavories
•	Now we know y chromosom	genes Y linkad
Part of the A	almost very les junction al	Zinno genes, which
	gone x chromo some contains	maying that the
- most first	are called N-linked genes ki	to the god eye
W 130 /F	white eye trait is recessive	2000 1100 1000 000
	trait This was a natural	convergence o
Jum	Mendelian anontment of charoma	momis.
•	The trait determined by X of	namosami is
	said to be x-limbed	1 2 2
715	romed flux toom 51 gen with a	R R
	xxy > white male	(Marson X - nucl eyed gome
- 10° 10		(nomozygous domina Jemale)
1/13	3:1 states just as mander predu	20 Shanfleet
- 2	was frix fright a X you are lighter	114.00 JVIG 1.
·	r	my private
	XR XRXY XRY -FI	
	F Y P	51.21
	xr Xrx Xry	
	R × /I	x2
	x y - x x - do (Hxyugo	403ygbzis
	(Just cross)	(RR RX
	X Y stall	
	12 R	
	X XXX XXX	The first
	ach is the relief to the dis	d Asmar
-	× ^γ χ ^γ χ ^γ γ	NA ALK
`	white red white ma	00
-	white eyed ma	

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Dorosphila experiments for body colour and
wing size.
Wild type this have again bodies and
normal-nized wings. Double mutant plies have
normal-nized wings. Double mutant plies have black bodies and wings much smaller than normal called verticial wings.
called vertigial wings.
Mutant alleles are recenive to wild + type
alleles.
The alleles for body colour are b+ (gray) and b (black) and for wing sige vg+(normal)
~g (vestigial).
Mongan true-breeding P(parental) generation
Hier wild type It flies with black vestigial
winged thies - to produce heteroaugous.
Fl dihybrids (b+b, vg+vg), are of which are
wild in appearance.
He then mated A wild FI dihuber'd temales
We then mated F1 wild F1 dihybou'd Jemales with black, vertigral winged males (test cross).
For test coss: Genotypic/Phenotypic
of genes are located on 1: 1:1:1
different chromosomes.
(Mendels)
16 genes are located on same 1:1:0:0
chromosome and parental
alleles are always inherited
together. (Mongan's)
Some alles do not assort independently.