

Name: _____

Date: _____ Hour: _____

Dragon Genetics

For this project students will be studying genetics using dragons. Each student will produce a dragon using the genotypes provided by the teacher. Then students will find partners and produce baby dragons to study how genes are passed on from generation to generation.

*This project is adopted from the Dragon Genetics activity developed by Science Kit & Boreal Laboratories (47794).

Dragon Genetics Worksheet #1:

“I’m All Keyed Up”

INSTRUCTIONS

Refer to the key below, and answer the following questions.

Name: _____

Date: _____

Class/Period: _____

Dragon Key

Upper case letters represent dominant alleles;
lower case letters represent recessive alleles

N = LONG NECK

n = short neck

E = Red Eye

e = white eye

H = HORN PRESENT

h = horn absent

F = FIRE BREATHING

f = not fire breathing

G = GREEN BODY

g = gray body

L = LONG TAIL

l = short tail

S = SPIKES ON END OF TAIL s

= no spikes on end of tail

R = RED WINGS

r = yellow wings

T = THREE TOES

t = four toes

W = YELLOW BELLY

w = white belly

B = BLACK TAIL SPIKES

b = red tail spikes

K = FRECKLES

k = no freckles

Y = Y chromosome / ear frills present

(XY = male)

Dragon DAD

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W = YELLOW BELLY

w = white belly

B = BLACK TAIL SPIKES

b = red tail spikes

K = FRECKLES

k = no freckles

X = X chromosome / no ear frills
(XX = female)

Dragon
MUM

Dragon Genetics Worksheet #5:

INSTRUCTIONS

Using the key on page S6, determine your "baby dragon's" genotype and phenotype for all of the traits listed on the chromosomes. Also determine whether your "baby dragon" is heterozygous or homozygous for each trait. Record all of this information in the proper spaces of the data table below.

Name: _____

Date: _____

Class/Period: _____

Data Table

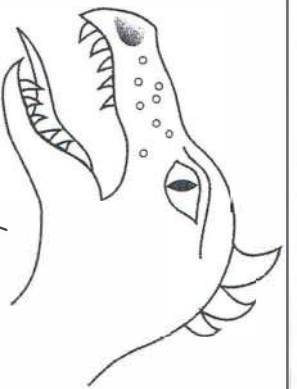
Chromosome pair number	Trait	Genotype	Homozygous/ Heterozygous	Phenotype
1	Neck length			
	Eye color			
	Horn?			
	Spikes?			

Chromosome pair number	Trait	Genotype	Homozygous/ Heterozygous	Phenotype
2	Tail length			
	Body color			
	Color of wings			
	Number of toes			

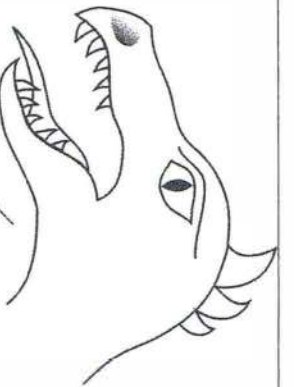
Chromosome pair number	Trait	Genotype	Homozygous/ Heterozygous	Phenotype
3	Belly color			
	Color of spikes			
	Freckles?			

Chromosome pair number	Trait	Genotype	Homozygous/ Heterozygous	Phenotype
4	Fire breathing?			
	Ear frills?			

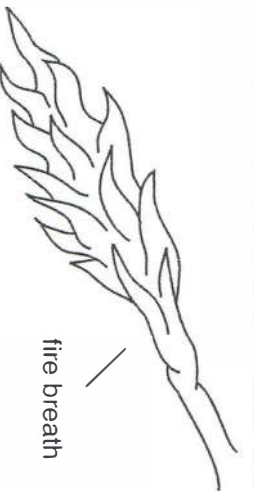
DRAGON BLACKLINE MASTER



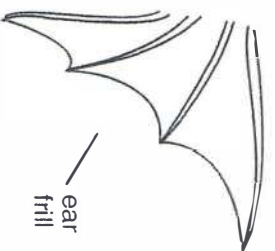
head with
freckles



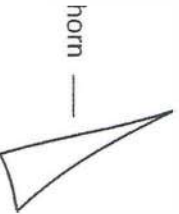
head
without
freckles



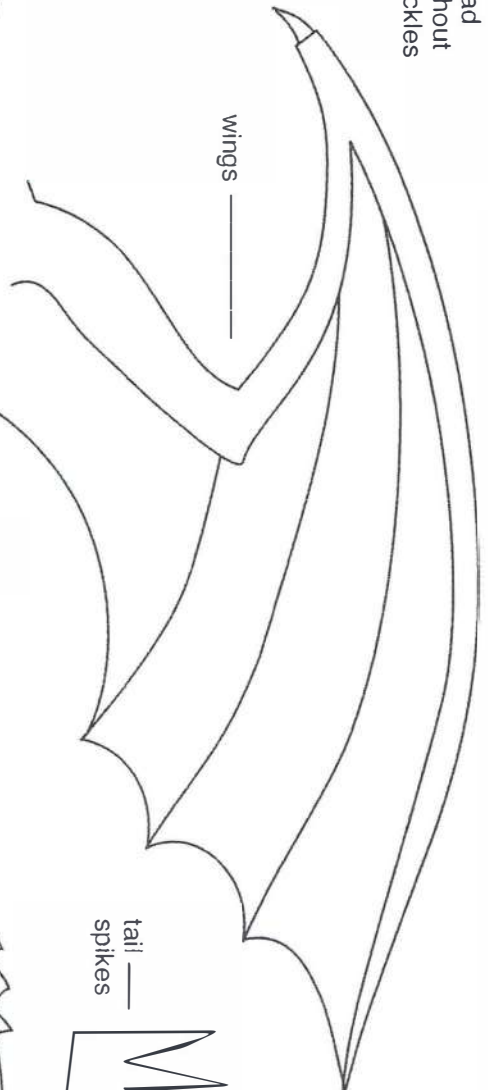
fire breath



ear
frill



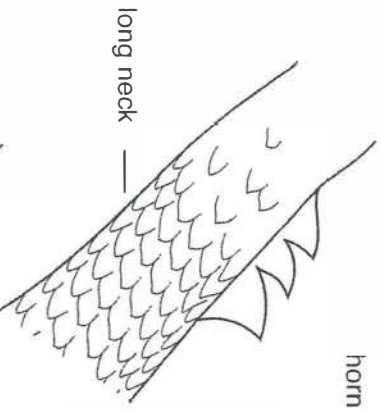
horn



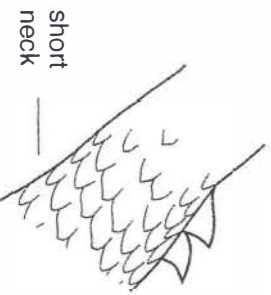
wings



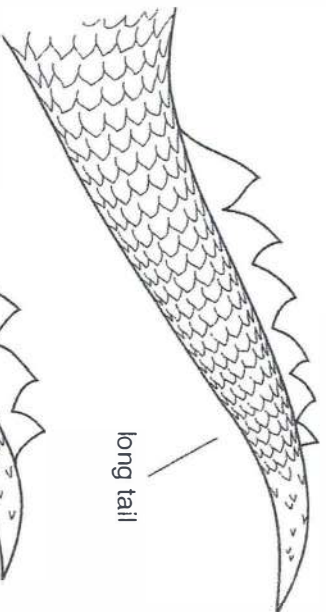
tail —
spikes



long neck



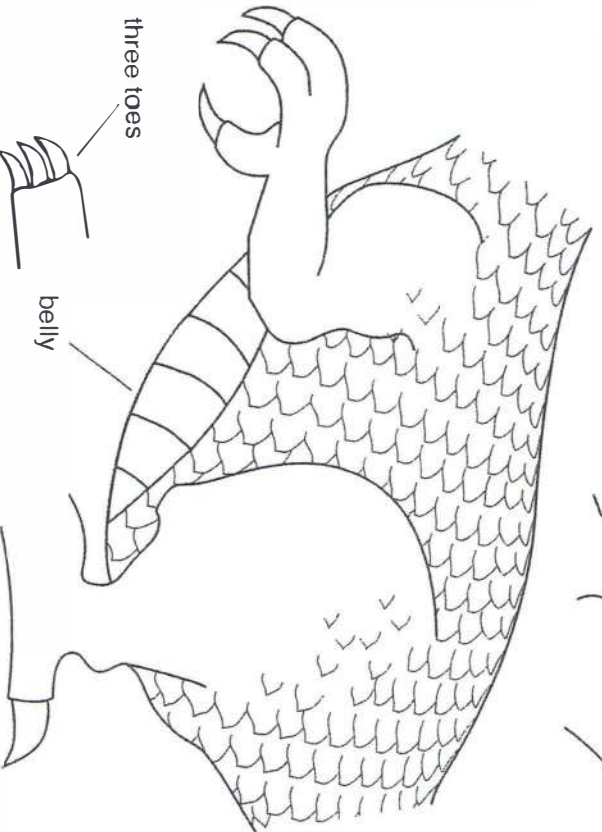
short
neck



long tail



short tail



three toes

belly



four toes

Dragon Genetics: Your Baby Dragon Model