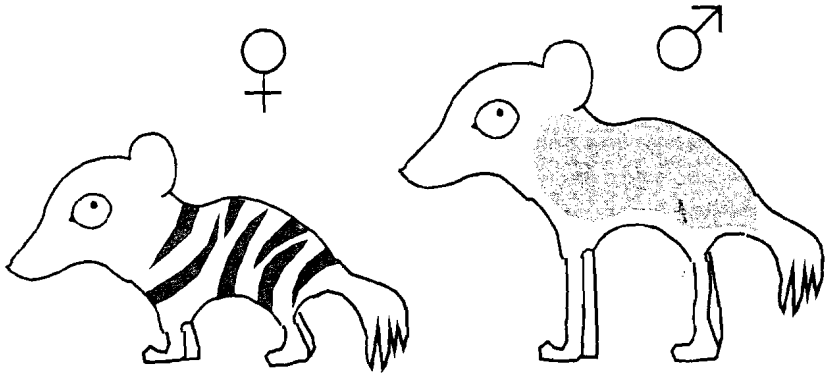
Name _____

Period _____ Date _____

RESPONSE SHEET: GENETIC VARIATION



Larkey Genetics Code
Appendages AA or Aa = **short legs** aa = **long legs**
Eye color EE or Ee = **red** ee = **gray**
Fur pattern FF = **striped** Ff = **solid** ff = **spotted**
Tail shape TT or Tt = **bushy** tt = **bare**

Bill looked at these two larkey parents and said,

It's impossible to tell what the offspring of these two gray-eyed parents will look like. The offspring could have any of the larkey traits.

Angie thought about it for a minute and said,

Well, I'm not sure what the offspring will look like exactly, but I can tell you this.

- All of the offspring will have gray eyes.
- None of the offspring will have spots.

Whose answer do you think is better? Explain why you think so.

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Name _____

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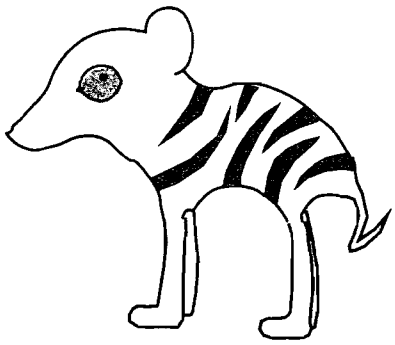
GENETIC VARIATION PRACTICE SHEET

Jenny and Ray were doing the larkey breeding activity. These are the two parents they started with.

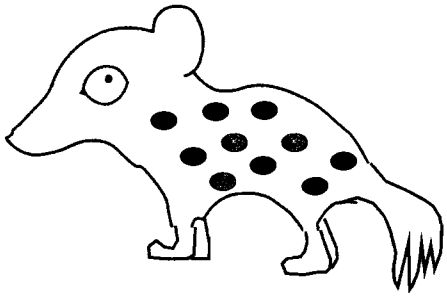
♀

a a
E e
F F
t t



♂

A A
E E
f f
T t



Jenny said,

When we breed these larkeys, the F_1 offspring will all have short legs and solid gray fur—no stripes or spots. I think the F_2 and F_3 generations will all have short legs and solid fur, too. Long legs, striped fur, and spotted fur will not show up again in this population.

Ray studied the genotypes and said,

No, there is a possibility for long legs, spots, and stripes to show up in the F_2 generation.

Discuss Jenny's idea and Ray's idea.

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