Ecology Disrupted: Bighorn Sheep

Name:_____   Period:_____

Investigation Booklet
Final Thoughts

Summary: Highways act as artificial boundaries that isolate bighorn sheep populations from each other, which leads to inbreeding.

1. In this unit, you discussed a number of examples of how we change habitats to make our own daily life better. Think of the examples we discussed (bighorn sheep, monarch butterflies, oil spills, seabirds, and wood turtles) and list at least **three ways** that **changing habitats improves** our **living** conditions.

Habitats We Change	Improves Our Living Conditions
Example: Add roads to desert landscape	*Facilitates travel*
1. Cut down trees	*Provides subsistence and wood products*
2. Oil in Gulf	*Cheaper oil for travel*
3. Plastic trash	*Plastic shopping bags, plastic toys, plastic containers*
4.Roads and Towns	*Easier travel and bigger homes*

2. State planners plan to build a new highway through a local mountain forest. You are worried that the highway might isolate skunk populations from different sides of the new highway. What data would you collect to determine whether the new highway, once built, is isolating skunk populations from each other?

I would analyze DNA from skunks that live in the area before the highway was built and then do a long-term analysis of DNA from skunks on both sides of the highway after the highway was built. If they share less DNA that would mean that the highway is isolating the skunk populations.