

CHAPTER 19	Launch Lab: Pick Your Plumage Answer Key	BLM 19.0.2A
ANSWER KEY		

Answers to Analysis Questions

1. Colour, size, and number are three obvious characteristics that will vary within the population. There will likely be others, depending on the variation in the population.
2.
 - a) Male birds that reproduced were chosen on the basis of characteristics identified by the teacher. You should list these characteristics. Females' selection of mates with specific traits, such as bright air sacs and long tail feathers, determined which male bird would reproduce.
 - b) The next generation of males will look more like the males that reproduced than the population of males in the previous generation.
3. Traits suggested must all be apparent to the female grouse at the time of mate selection. These may include size, vigour, or type of dancing done by the male grouse—any specific phenotypic characteristic is acceptable.
4. If females choose the healthiest and strongest males as mates, the advantage would be that the males who reproduce are best suited to the environment, as long as the environment does not change. The population thus benefits by having a next generation that is well suited to the environment. The disadvantage is that some genetic diversity may be lost. Non-mating males may have alleles that are advantageous in other situations that are not passed to the next generation.