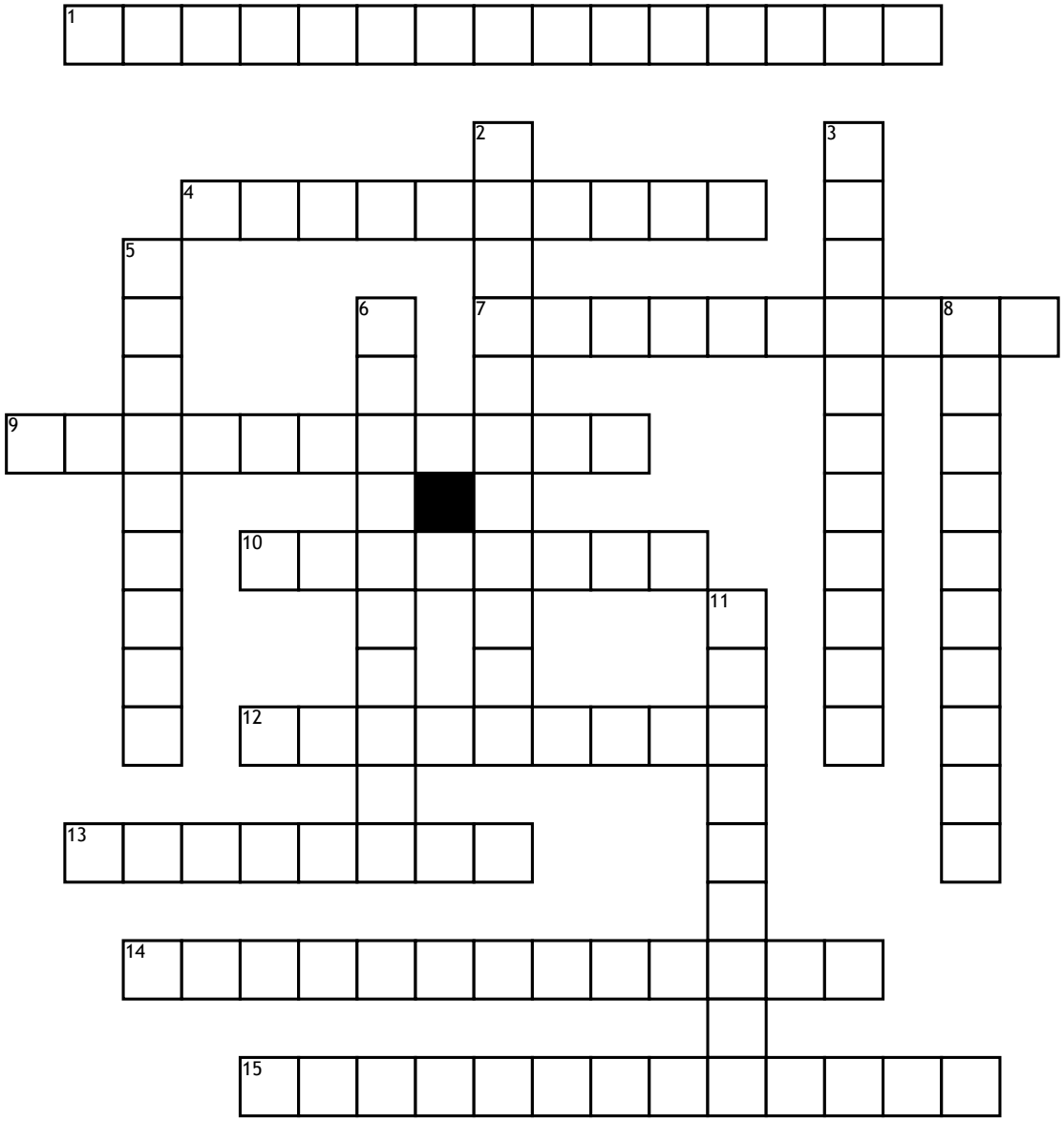
Name: _____ Date: _____

BASES OF ECO AND EPIGENETICS



Across

1. Which antibiotics induce epigenetic changes in mammalian cells through iron chelation?

4. Who coined the term epigenetics?

7. Cellular differentiation is one example of an epigenetic change in type of organism?

9. What is the study of heritable phenotype changes that do not involve alterations in the DNA sequence?

10. Epigenetic alterations of DNA repair genes or cell cycle control genes are very frequent in which type of cancer?

12. Gene expression can be controlled through the action of which protein?

13. Repressor proteins attach to which region of the DNA?

14. Which type of differences can produce long-term epigenetic effects?

15. During which process totipotent stem cells become the various pluripotent cell lines of the embryo, which in turn become fully differentiated cells.

Down

2. The two forms of heritable information, namely genetic and epigenetic, are collectively denoted as dual _____?

3. The term epigenetic has been used to describe any modification in which regions?

5. The standard definition of epigenetics requires the alterations to be _____ either in the progeny of cells or of organisms.

6. Epigenetics can also be used to describe any heritable _____ change.

8. Epigenetics most often denotes changes that affect gene activity and _____ ?

11. Epigenetic research uses a wide range of techniques to understand the epigenetic phenomena, including _____ immunoprecipitation.