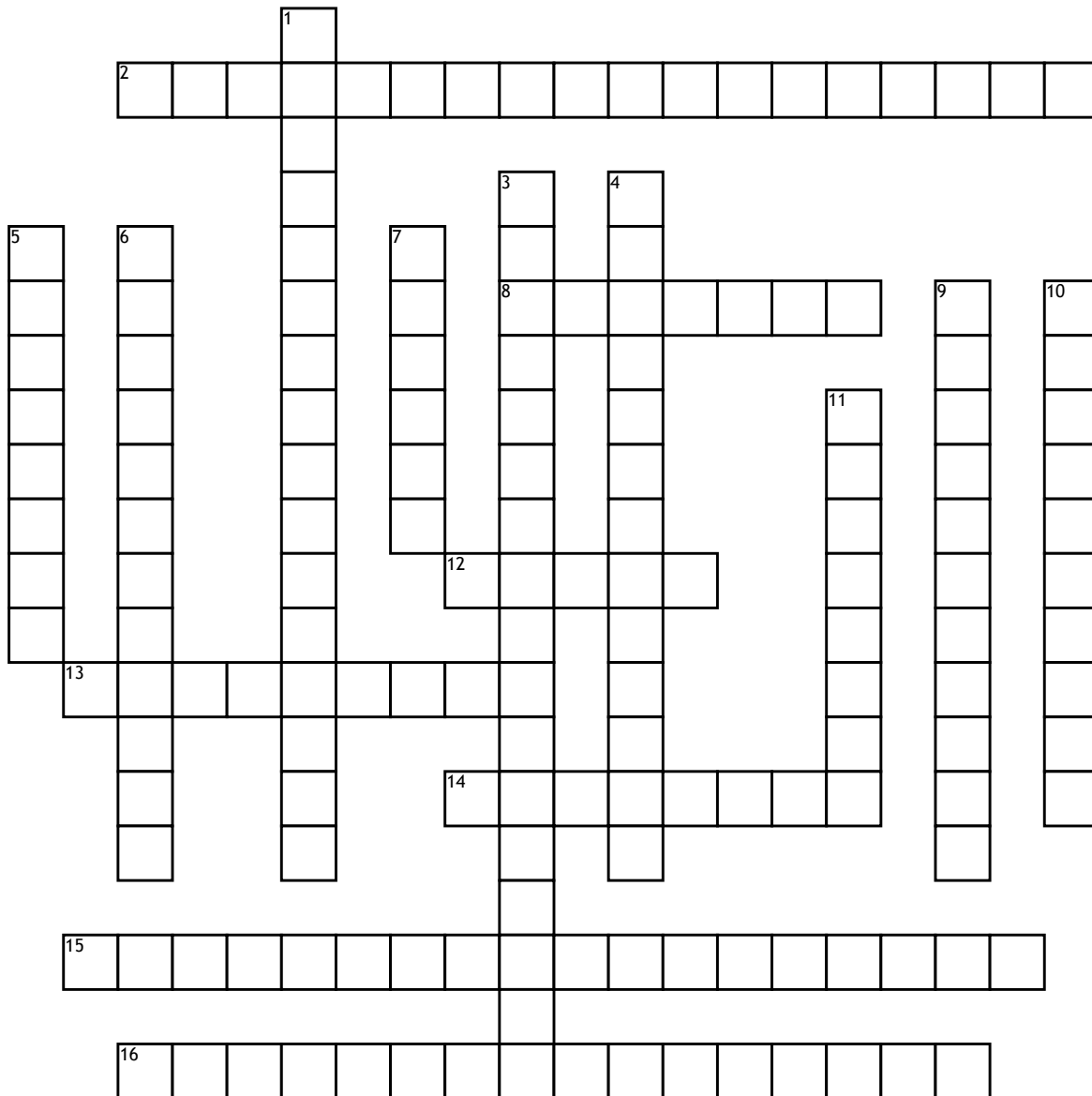


Name: _____ Date: _____ Period: _____

Observation Studies and Experiments



Across

2. An observational study in which subjects are selected and then their previous conditions or behaviors are determined. Usually they're focused on estimating differences between groups or associations between variables

8. placebo a treatment known to have no effect, administered so that all groups experience the same conditions.

12. The specific values that the experimenter chooses for a factor

13. The process, intervention, or other controlled circumstance applied to randomly assigned experimental units. They are the different levels of a single factor or are made up of combinations of levels of two or more factors

14. When groups of experimental units are similar, it is often a good idea to gather them together into blocks.

15. A study based on data in which no manipulation of factors has been employed

16. To be valid, an experiment must assign experimental units to treatment groups at random

Down

1. An observational study in which subjects are followed to observe future outcomes. It is not an experiment and typically focuses on estimating differences among groups that might appear as the groups are followed during the course of the study.

3. Individuals on whom an experiment is performed. usually called subjects or participants when they are human

4. The tendency of many human subjects (often 20% or more of experiment subjects) to show a response even when administered a fake treatment.

5. A variable whose values are compared across different treatments. In a randomized experiment, large response differences can be attributed to the effect or differences in treatment level.

6. The experimental units assigned to a baseline treatment level, typically either the default treatment, which is well understood, or a null, placebo treatment. Their responses provide a basis for comparison

7. a variable whose levels are manipulated by the experimenter. Experiments attempt to discover the effects that differences in factor levels may have on differences in treatment level

9. When the levels of one factor are associated with the levels in another factor in such a way that their effects cannot be separated.

10. A study that manipulates factor levels to create treatments, randomly assigns subjects to these treatment levels, and then compares the responses of the subject groups across treatment levels.

11. In a retrospective or prospective study, subjects who are similar in ways not under study may be matched to reduce variation and then compared with each other on the variables of interest.