Name: _____ Date: _____

Sample hypothesis sheet. Hypotheses are "If … then …" statements.

Read the hypotheses (to get the general idea) then fill in the blanks.

1. If *living things give off carbon dioxide gas as they break down food,*

What you think is true

then *carbon dioxide levels will rise as an organism digests its food.*

What you expect will happen in an experiment if it IS true. Must be MEASURABLE OR COUNTABLE

2. If taking vitamin C every day helps prevent colds, … then people who take vitamin C every day will catch fewer colds than those who don't.

3. If brand of fish food affects number of babies, then fish given **generic food [no name] will have fewer babies than fish given 'name brand' food.**

4. If the temperature at which bacteria are grown affects their rate of reproduction, then **the** number of bacteria grown at higher temperatures will **be fewer than the number grown at higher temperatures.**

5. If using up the nutrients they are feeding on affects the rate of reproduction of bacteria, then **the longer the bacteria are kept in unchanged nutrient broth, the fewer bacteria there will be.**

6. Do E.coli bacteria require glucose in the medium in which they are grown?
If _____ E.coli bacteria require glucose in the medium in which they are grown _____

then _**E. coli grown with glucose free medium will die, whereas E.coli grown with glucose in their medium will survive.**____[example: answers may vary]

7. Does aspirin inhibit the rate of reproduction of bacteria?
If ____**aspirin inhibits the rate of reproduction of bacteria**_____
then _____**bacteria grown in a medium containing aspirin will reproduce more slowly than those grown in a medium without aspirin.**_____

8. Does eating chocolate give you pimples?

IF eating chocolate gives people pimples, then people who eat chocolate will have more pimples, on average, than those who never eat chocolate._____

** It is not possible to PROVE any hypothesis correct because even if I find 1,000,000 chocolate eaters who get more zits than non-chocolate eaters … there is ALWAYS the possibility that the 1,000,001th person I test will NOT get more zits and my hypothesis will be refuted. Thus scientists write a hypothesis that WILL be refuted. It will provide some support for your *actual* belief. [right?]