a. The investigation is anecdotal, observational, or experimental (CIRCLE ONE)

b. Does this study include a categorical variable? Explain.

Phot 1 - Mutated or did not mutate Phot 1

c. Does this investigation establish a cause-and-effect relationship between a treatment and a response variable? Justify your answer.

Yes, mutation causes less stomata opening in blue light

d. Identify ONE treatment variable: Mutation or no mutation

e. Identify ONE response variable: The size of stomata opening

f. Sketch an appropriate graph of the findings. Label x and y axes with a variable (units).

[Graph showing bar chart with bars labeled 'wild type', 'mutant', 'no light', and 'blue light'.]

100% 0%

amount of stomata open

0% wild type blue light

mutant

wild type no blue light

mutant

[Interpret the graph.]

Wild type in blue light opens all others do not open better in blue light or not.