

# LG#7 PROJECT: 3JS Variable Manipulations

SCORING	INCOMPLETE 0-59% (F)	BEGINNING 60-69% (D)	DEVELOPING 70-79% (C)	ACCOMPLISHED 80-89% (B)	EXEMPLARY 90-100% (A)
VARIABLE MANIPULATION	No member of this design team made any variable manipulations.	All members of this design team manipulated between 1-6 variables on a 3JS platform, but did not clearly document those changes in their code.	All members of this design team manipulated between 7-10 variables on a 3JS platform and clearly documented those changes in their code.	All members of this design team manipulated between 11-15 variables on a 3JS platform and clearly documented those changes in their code.	All members of this design team manipulated more than 15 variables on a 3JS platform and clearly documented those changes in their code.
EFFECTIVE EXPLANATION	Design team is unable to explain any of their variable manipulations.	Design team is able to explain between 1-6 of their variable manipulations, but only does this by talking to the teacher on the day of grading.	Design team is able to explain between 7-10 of their variable manipulations, but only does this by talking to the teacher on the day of grading.	Design team has written a clear and effective expository paper (5-7 paragraphs) that explains between 7-10 of the variables that were manipulated, where those variables are found in the code, & what the changes did.	Instead of an expository paper, design team has created a clear and effective tutorial (no more than 10 steps) that explains how to manipulate between 7-10 of the variables. Tutorial should include screenshots with well written explanations.
TEAMWORK COORDINATION	Students never spoke to each other during the project or wasted all of the project time in arguments or unrelated conversations.	Students only spoke to each other when asked to do so by the teacher, but were ineffective at communicating their ideas.	Students struggled to communicate well throughout the project but demonstrated a partial effort even though they were unable to finish the project.	Students spoke to each other very well throughout the project and were able to finish their manipulations and explanations without any major problems.	Students spoke to each other very well, completed the project, and were able to achieve the exact same results in their design (same variables, colors, shapes, sizes, etc) when those design were pulled up on different computer monitors.