Group Members Names:				Hour:	Lab Table #:	
Model Rubric		**Exemplary (3)**	**Adequate (2)**	**Needs Improvement (1)**	**Self- Evaluation Total Score**	**Teacher Evaluation Total Score**
Part 1: What made the nuclear bomb Little Boy, dropped on Hiroshima, different from all previously used bombs?	Students are able to properly illustrate the nuclear process that powered the Little Boy bomb.	The process is correctly illustrated and support it with a nuclear equation.	The process is illustrated correctly.	The process illustrated incorrectly or missing.		
	Students are able to properly model the simple construction of Little Boy bomb.	The construction of Little Boy and illustrates/ or labels all important components.	The construction of Little Boy and illustrates/ or labels most components.	The construction of Little Boy and illustrates/ or labels some components or missing.		
Part 2: How did it casue a loss of life?	Students will be able to illustrate the products and leftover reactant the nuclear reaction.	All products and leftover reactants are shown correctly.	Products and leftover reactant are shown, but one is missing or incorrect.	Products and leftover reactant are shown, but two are missing or incorrect.		
	Students will be able to illustrate how each of the products and leftover reactant caused a loss of life?	All products and leftover reactants are shown correctly.	Products and leftover reactant are shown, but one is missing or incorrect.	Products and leftover reactant are shown, but two are missing or incorrect.		
	Students will be able to illustrate the difference between initial radiation exposure vs. residual radiation.	The differences are correctly illustrated.	The process is mostly illustrated correctly.	The process illustrated incorrectly or missing.		
	Students will be able to illustrate the amount of radiation exposure as a function of distance to the hypocenter.	The distances verse radiation exposure are correctly illustrated.	The distances verse radiation exposure are mostly illustrated correctly.	The distances and amounts of radiations are missing or incorrectly illustrated.		
	Students will be able to illustrate how far radiation can be travel (in air) and how it can be blocked.	All three types of radiation are illustrated correctly.	Only two types of radiation are illustrated correctly.	The process illustrated incorrectly or missing.		
	Students will be able to illustrate the process of alpha decay.	The process is correctly illustrated and support it with a nuclear equation.	The process is illustrated correctly.	The process illustrated incorrectly or missing.		
	Students will be able to illustrate the process of beta decay.	The process is correctly illustrated and support it with a nucelar equation.	The process is illustrated correctly.	The process illustrated incorrectly or missing.		
	Student will be able to illustrate radiation sickness and how it is caused by radiation.	The process is correctly illustrated.	Radiation sickness is illustrated, but the mechanism of how it is caused is missing/ or incorrect.	The process illustrated incorrectly or missing.		
	Student will be able to illustrate cancer and how it is caused by radiation.	The process is correctly illustrated.	Cancer is illustrated, but the mechanism of how it is caused is missing/ or incorrect.	The process illustrated incorrectly or missing.		
	Student will be able to illustrate how energy caused a loss of life.	All three ways are illustrated correctly.	Only two ways are illustrated correctly.	The process illustrated incorrectly or missing.		

Total _____