

DNA Model Evaluation Rubric

Date _____

Class period _____

Name(s) _____

Score: _____

This analytic rubric is used to verify and evaluate the quality of specific tasks performed when building a science model.

Category	Scoring Criteria	Points	Student Evaluation	Teacher Evaluation
Documentation 25 points	Model is accompanied by a carefully drawn and clear diagram of the model with parts listed and labeled so the diagram may be used as a " key " to understand the model. <i>(This can be done on a separate sheet of paper.. The drawing should include student name, date, class period.)</i>	15		
	Model is accompanied by a bibliography/work cited showing at least two research references used in planning the model. Must be cited correctly not just web page. <i>(These can be cited on the lab report under, research or added to your key/diagram.)</i>	10		
Report of Research 40 points	Free standing and contains at least 8 paired nitrogen bases following this sequence (ATTGGCCA). <i>(model stands in a vertical position or no more the 45 degrees.)</i>	10		
	Model demonstrates the twisted double helix shape	10		
	Nitrogen bases are paired correctly (A-T , G-C)	10		
	DNA backbone is constructed correctly <i>(alternating deoxyribose sugar and phosphate molecules, sugar bonds to nitrogen bases)</i>	10		
Honors only 15 pts.	Honors biology: Model shows 5' to 3' & 3'to5' prime directions <i>(indicate on model and drawing)</i>	5		
	Honors biology: Model displays examples of the phosphodiester and hydrogen bonds	10		
Model Construction 20 points	Model demonstrates the student's pride in its careful construction and does not exceed measurement limits given (25 cm width and depth x 50 cm height).	10		
	The choice of materials for the model indicates the student's use of their creative imagination <i>(no DNA kits)</i> .	10		
Score	Total Points regular biology Total Points honors biology	85 100		
Self-evaluation	Students are expected to honestly evaluate their own work. If the difference between the student evaluation and the teacher evaluation is more than 10 points, 5 points will be deducted from the teacher's score when the grade is recorded.			