

Building A Structure : Eco House Model

Teacher Name: **Mr. Hutchings**

Student Name: _____

CATEGORY	4	3	2	1
Function	Structure functions extraordinarily well, holding up under atypical stresses. The following principles are included: passive solar, rain water collection, waste water treatment, water conservation, energy conservation, garden, energy collection, and geothermal component.	Structure functions well, holding up under typical stresses. At least 7 principles covered.	Structure functions pretty well, but deteriorates under typical stresses. At least 5 principles are covered.	Fatal flaws in function with complete failure under typical stresses. Less than 5 principles covered.
Scientific Knowledge	Explanations by all group members indicate a clear and accurate understanding of scientific principles underlying the construction and modifications. Covers all principles needed: passive solar, rain water collection, waste water treatment, water conservation, energy conservation, garden, energy collection, and geothermal component.	Explanations by all group members indicate a relatively accurate understanding of scientific principles underlying the construction and modifications. At least 7 principles covered.	Explanations by most group members indicate relatively accurate understanding of scientific principles underlying the construction and modifications. At least 5 principles are covered.	Explanations by several members of the group do not illustrate much understanding of scientific principles underlying the construction and modifications. At least 5 principles are covered.
Information Gathering	Accurate information taken from several sources in a systematic manner.	Accurate information taken from a couple of sources in a systematic manner.	Accurate information taken from a couple of sources but not systematically.	Information taken from only one source and/or information not accurate.
Construction -Materials	Appropriate sustainable materials were selected and creatively modified in ways that made them even better.	Appropriate sustainable materials were selected and there was an attempt at creative modification to make them even better.	Appropriate sustainable materials were selected.	Inappropriate sustainable materials were selected and contributed to a product that performed poorly.
Plan	Plan is neat with clear measurements and labeling for all components. Scale is correct.	Plan is neat with clear measurements and labeling for most components. Scale is mostly correct.	Plan provides clear measurements and labeling for most components. Scale is somewhat correct.	Plan does not show measurements clearly or is otherwise inadequately labeled. Scale is not accurate.
Construction - Care Taken	Great care taken in construction process so that the structure is neat, attractive and follows plans accurately.	Constuction was careful and accurate for the most part, but 1-2 details could have been refined for a more attractive product.	Construction accurately followed the plans, but 3-4 details could have been refined for a more attractive product.	Construction appears careless or haphazard. Many details need refinement for a strong or attractive product.
Sources	Bibliography is written correctly and has at least 8 legitimate sources in APA format.	Bibliography is written correctly and has at least 6 legitimate sources in APA format.	Bibliography is written correctly and has at least 6 legitimate sources in APA format.	No bibliography.