

Grades 3-6

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Common Core Standards /NGSS

ETS 1.1 Define simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost

Objective of Lesson

I know how to build a tiny house because I can follow a created plan to construct a model home.

As evidenced by

Informal assessment: Cooperative quads work will be informally assessed by class during class discussion of "Do Now".

Formal Assessment(s): Tiny House product will be assessed for adherence to constraints of design. Scholars will complete "Self-Rubric" then counsel (or present to class) with Illuminator to defend grade. *

Instructional clusters

Do Now Opening: Individual scholars will review what is needed to construct a model tiny house, they will review their plans and complete "Do Now: Tiny House Reflection" worksheet.
(5 minutes)

Activity: Teacher will describe construction tools provided. Cooperative pairs will work to construct their Tiny House based on designs from previous lessons. Scholars may also watch 3Dux videos to help in classroom description of tools used to create tiny house.

<https://www.youtube.com/watch?v=FLMiA5OeqEQ&feature=youtu.be>

Closure: Scholars will lead whole class discussion of their thoughts on tiny house construction.

*Cooperative pairs will complete "complete "Tiny House Project: Self Rubric". to identify different design ideas for tiny houses.

Homework:

Scholars will review design plans and identify how to create

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ETS 1.1 Define simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost
ETS 1.2: Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem
ETS1.3 Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

Do Now: Tiny House Reflection

1. What will be the easiest part(s) of your tiny house to construct? Explain.
2. What may be the most difficult part(s) of your tiny house to construct? Explain.
3. What non-planned design elements may you include in your tiny house? Why are these important?

The Tiny House Challenge

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Tiny House Project: Self Rubric

	4	3	2	1
Tiny House Plan	All required design elements are reflected in constructed tiny home and creative elements have been added	All required design elements are reflected in constructed tiny home	One (1) required design element is missing from constructed tiny home	Construction of tiny home is complete but does not accurately represent design requirements
Construction	Tiny home is constructed in a manner to model tiny house plans and additional house elements have been constructed	Tiny home is constructed in a manner to model tiny house plans	Tiny home construction resembles tiny house plans	Tiny home construction does not resemble tiny house plans
Collaboration	Team meets requirements for (3) and demonstrated team work throughout the whole unit	Team works diligently to construct tiny home. All tools were used appropriately	Team is off-task but still constructs tiny home. All tools were used appropriately	Off-task behavior disturbs construction of other design teams or tools were used inappropriately