



Novel Engineering Teacher Planning Worksheet

BOOK	THINK ABOUT....
<p>Name of Book:</p>	<ul style="list-style-type: none">• Why do you think this book will work? Why did you choose this book?• Does this book have multiple problems that can be solved by engineering?• Does this book have details about the character and setting?• Will you read the whole book or will you stop at a specific point (where a character has a problem but before its solved)?
PROBLEMS	
<p>What problems will students identify?</p> <p>Pick one of the problems you've identified and think of multiple solutions to the problem.</p>	<ul style="list-style-type: none">• Are there multiple problems the students can identify?• Are there multiple ways to solve the problems with engineering?• <i>Reconsider you book choice if you have a hard time thinking of multiple problems and multiple solutions.</i>



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MATERIALS	THINK ABOUT....
<p>What materials will you need?</p> <p>How and when will you introduce students to materials?</p>	<ul style="list-style-type: none">• Where will you store materials?• How will you allocate materials? • Depending on their experience students may need some time to play or experiment with materials. • Will all the students/groups have the same materials or will their be choice?
READING	
<p>How will the students read the book?</p> <p>How will you or the students capture the problems identified?</p>	<ul style="list-style-type: none">• Reading Options (Whole class Interactive Read Aloud, Individually, In reading groups) • Capturing Problems – Running Record, Note Catcher, Reading Journal



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WRITING	THINK ABOUT....
<p>What writing assignments will be incorporated into the unit/activity?</p>	<p>Possibilities include:</p> <ul style="list-style-type: none">• Reflections on process• Comic strip• Alternate ending• Additional book chapter that includes the design• Planning documents• Instructions to character to use or build design
MANAGEMENT	
<p>How will the students be grouped for building?</p> <p>What worksheets do you need?</p>	<ul style="list-style-type: none">• Will the entire class work on the same problem or multiple problems?• How will the students plan?



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ASSESSMENT	THINK ABOUT....
How will you assess the students?	<ul style="list-style-type: none">• Consider whether you will assess individuals or groups • What evidence/work will you look at? • Which standards are you assessing? (Reading, Writing, Group Work, Science, Engineering)
TIMELINE (<i>Session 1, Session 2, Session 3....</i>)	
	<ul style="list-style-type: none">• How will you introduce Novel Engineering? • Elements to plan for<ul style="list-style-type: none">○ Reading the book○ Discussions and problem identification○ Planning○ Introducing Materials○ Building & Testing○ Mid Design Share outs○ Redesign○ Final Sharing○ Writing○ Evaluation/Assessment