

Name _____ Date _____

Scientific Prediction (Explanation) about the Effects of a Transcontinental Railroad in the Amazon Basin Rubric

Components of Scientific Prediction	Developing	Approaching	Met
Map Prediction	<ul style="list-style-type: none"> •A key is not included or it does not clearly illustrate how habitat loss, land cover, or indigenous territories are represented on the map. •Habitat loss, land cover, or indigenous territories are not discernable on the map. •The prediction map is no different from the current map. •No affected areas are identified. 	<ul style="list-style-type: none"> •A key illustrates how habitat loss, land cover, and indigenous territories are represented on the map. •Habitat loss, land cover, and indigenous territories are included on the map. •The prediction map is somewhat different from the current map. •One affected area is identified. 	<ul style="list-style-type: none"> •A key illustrates how habitat loss, land cover, and indigenous territories are represented on the map. •Habitat loss, land cover, and indigenous territories are clearly discernable on the map. •The prediction map is clearly different from the current map. •Two affected areas are identified.
Claim (for each area) <i>A statement that answers the original question/problem.</i>	<ul style="list-style-type: none"> •No claim is made or the claim is inaccurate. •The claim states that no changes to habitat loss, land cover, or indigenous territories will occur. 	<ul style="list-style-type: none"> •The claim is accurate. •The claim includes habitat loss, land cover, and indigenous territories that will change. 	<ul style="list-style-type: none"> •The claim is accurate and complete. •The claim includes how habitat loss, land cover, and indigenous territories will change.

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Scientific Prediction (Explanation) about the Effects of a Transcontinental Railroad in the Amazon Basin Rubric, continued

Components of Scientific Prediction	Developing	Approaching	Met
Evidence (for each area) <i>Scientific data that supports the claim. The data need to be appropriate and sufficient to support the claim.</i>	<ul style="list-style-type: none"> •Evidence is not provided or it is inappropriate. (It does not support the claim.) •The provided evidence is vague. (The data shows change will happen.) 	<ul style="list-style-type: none"> •One or two pieces of appropriate evidence are provided. •The provided evidence may not be sufficient for supporting the claim. 	<ul style="list-style-type: none"> •Three or four pieces of appropriate evidence are provided. •The provided evidence is sufficient for supporting the claim.
Reasoning (for each area) A justification that connects the evidence to the claim.	<ul style="list-style-type: none"> •No reasoning is provided; or •the reasoning provided does not link evidence to the claim; or •the reasoning provided is inappropriate. 	<ul style="list-style-type: none"> •The reasoning provided is appropriate for 1-2 pieces of evidence. 	<ul style="list-style-type: none"> •The reasoning provided shows why all evidence supports the claim, using appropriate and sufficient scientific principles.

**modified from McNeill, K.L., and J. Krajcik. 2012. Supporting Grade 5–8 Students in Constructing Explanations in Science: The Claim, Evidence and Reasoning Framework for Talk and Writing. New York: Pearson Allyn & Bacon.*

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