Rubric for Pretest and Posttest

**Where Does a Tree Get Its Mass?**

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| Question | Needs Improvement | Satisfactory | Exemplary  |
| Where does a tree get its mass? | No answer given or list soil or other inaccurate resources | Explain that carbon dioxide (and water) or even air gives the tree mass but few details and no mention of photosynthesis/ or says photosynthesis gives the tree mass but no further explanation | Explains that through the process of photosynthesis a tree gains mass specifically from carbon dioxide and water. Gives details and shows deep understandings.  |
| How would you measure the mass of a mature tree? | No answer or gives an answer like putting it on a scale.  | Explains the process used in the unit with few details.  | Explains the process used in the unit with details and examples.  |
| What would you estimate the mass of a mature tree to be? | No answer given or extreme low or high estimates (10 pounds or 1,000 tons)  | Gives a reasonable amount (range 1-50 tons) with accurate units.  | Gives a reasonable amount (range 1-50 tons) with accurate units and added details.  |