

Procedure for Scoring the Pre-Unit Questionnaire

Use the scoring rubric on the next page to score the questionnaire. The evaluation criteria appear indented and in italic type after each question.

4 — A complete and correct response that communicates accurate scientific and technical information and correctly applies scientific concepts and processes using the vocabulary of science

3 — An essentially correct response, but one that omits some detail(s) or underlying explanations, or that contains inaccuracies

2 — A response that is very skimpy, but correct

1 — A response that is incorrect

0 — No answer, or “I don’t know”



1. How much does the amount of water on Earth change from one year to the next or from one century to the next? (Score 0–4)

► *This question focuses on students’ understanding of water as a limited resource. Students should describe Earth’s available water as a finite quantity that is recycled and reused without changing the amount available (NSES, F, Science in Personal and Social Perspectives, page 140).*



2. How do materials get into tap water? (Score 0–4)

► *This question focuses on students’ understanding of the connection between land and water. Students should describe how materials move from land into water above and below the soil surface (NSES, C, Life Science, page 129).*



3. What is water pollution? (Score 0–4)

► *This question focuses on students’ understanding of what water pollution is. Students should describe polluted water as water containing a material (a pollutant) that affects it negatively, making it unsuitable for many purposes and potentially affecting the health, survival, and activities of living things that depend on it (NSES, F, Science in Personal and Social Perspectives, pages 139–140).*