

Classroom Observation Tool

The *National Geographic Science* Classroom Observation Tool is designed to inform coaches and principals about the strengths and challenges teachers face as they teach their students with *National Geographic Science*. This tool will help coaches and principals provide structured feedback to teachers and support them in implementing the most effective techniques to help students succeed in science content, inquiry, and literacy.

Teacher: _____ Observer: _____ Date: _____

Directions: Place a checkmark in the appropriate box next to each statement that best reflects what you observed in this NG Science lesson. It is normal to have N/A responses since each lesson observed does not include all of the program's lesson components. After your observation, discuss your observations with the teacher and plan for next steps for instruction.

Lesson Planning	Evident	Partially Evident	Not Evident	N/A	Comments
1. Content and process objectives are clearly defined for all students.					
2. Lesson includes plans to differentiate instruction for all students; adaptation of content is present for students at all levels of proficiency.					
3. Lesson includes opportunities for student engagement and active participation.					
Build Background , Connect to the Big Idea	Evident	Partially Evident	Not Evident	N/A	Comments
5. Provides explicit instruction to build background and/or tap prior knowledge related to the science Big Idea.					
6. Lesson includes explicit instruction of science academic and process vocabulary with a variety of opportunities for practice.					
7. A variety of strategies are used to make new concepts clear and focused (e.g., visuals, modeling, hands-on practice, interaction, etc.).					
8. Opportunities are included for student engagement, active participation, and reflection on their own prior knowledge as it relates to the Big Idea.					
9. Ongoing assessment of lesson objectives (content and process) to check students' understanding.					
Science Content (Big Idea) Instruction	Evident	Partially Evident	Not Evident	N/A	Comments
10. Lessons are introduced by tapping prior knowledge and experience, and setting a purpose for reading/content.					
11. A variety of opportunities are provided during Big Idea instruction to apply reading comprehension strategies: Preview and Predict, Monitor and Fix-up, Make Inferences, and Sum Up.					

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12. Supports & opportunities are provided to practice new academic and process vocabulary in context.					
13. A variety of scaffolds are used to support comprehension & student understanding (e.g., visuals, graphic organizers, etc.).					
14. Strategies and flexible grouping are in place to differentiate instruction during science content lessons.					
15. Frequent opportunities for interaction and active participation are included during science content lessons.					
16. Students are encouraged to use their science notebook during content lessons (teacher models appropriate use) to reinforce and develop big ideas understanding.					
17. Teacher demonstrates basic knowledge of science content being presented (e.g., references Science Misconceptions and/or Raise Your SciQ!)					
18. Teacher makes real-world connections to explorers and scientists, to how scientists think and work, and to math and social studies as they relate to science content/Big Ideas.					
19. Ongoing assessment of lesson objectives (content and vocabulary) and understanding (e.g., Before You Move On, Share and Compare) occur as content is presented.					
20. Teacher uses technology (e.g., myNGconnect) as appropriate to reinforce and expand students' understanding of concepts and Big Ideas					
Scientific Inquiry and Nature of Science	Evident	Partially Evident	Not Evident	N/A	Comments
21. Opportunities are provided for hands-on investigations that apply and extend science concepts introduced during Big Idea instruction.					
22. Connections are made to strengthen students' understanding of the nature of science and of the process skills scientists use to investigate questions.					
23. Inquiry investigations are completed by interactive student groups; teacher supports students' accurate completion of hands-on activities through modeling and questioning.					
24. Teacher talk varies with each level of inquiry investigation (explore, directed, guided, open) following a gradual release of responsibility model.					
25. Science notebooks are used to record observations and data, make inferences and draw conclusions, and include visuals as appropriate.					

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26. Students are encouraged to reflect on and write about their understanding and ask/answer their own questions during investigations in their science notebook.					
27. Ongoing assessment of lesson objectives (content and process) is present (e.g., rubrics, self-assessments)					
Reading Informational Text	Evident	Partially Evident	Not Evident	N/A	Comments
28. A variety of opportunities are included for students to practice (Become an Expert) and apply (Explore on Your Own) reading strategies as they deepen understanding of science content.					
29. Teacher models and guides application of comprehension strategies: Preview and Predict, Monitor and Fix-up, Make Inferences, and Sum Up.					
30. Teacher encourages students to use informational text features to support their reading comprehension and understanding of science content.					
Assessment	Evident	Partially Evident	Not Evident	N/A	Comments
31. Rubrics and self-assessments are used to check students' understanding and instructional needs.					
32. Data from chapter and benchmark assessments are used to inform instruction for individual students.					