



Guidelines for reviewing project websites for NAGT

Assembled by Anne Egger

Why review sites?

NAGT provides a portal to Teach the Earth, the collection of all things relevant to geoscience educators, including teaching activities, research on learning, pedagogical strategies, and more. Within Teach the Earth, both teaching activities and project sites undergo a peer review process through NAGT. This review process focuses on project sites. There are three goals we can achieve through peer review of project sites:

1. First, site reviews provide guidance for users who visit Teach the Earth. Sites (and activities) that are reviewed as exemplary show up higher in search returns, and are visibly tagged with their exemplary status.
2. Second, reviewers' comments can be shared back to site authors and developers, who may choose to revise their materials to achieve exemplary status.
3. Third, the rubric and guidelines for review can be shared with future site developers so that they have a target for creating an exemplary site.

Your participation in this process helps us achieve all three of these goals.

How does it work?

Each site is assigned to three independent peer reviewers to score according to a rubric that includes the following criteria:

- Relevance to the NAGT audience
- Grounding in research and best practices
- Robustness
- Accuracy and currency

Reviewers score the sites and provide comments that can be shared with the creators of the site. An editor collects the reviews, determines whether the site is exemplary or not, and communicates the results of the review with the site authors.

Each criterion is broken down into sub-criteria that are phrased as questions, and you have the option to answer definitely, somewhat, a little, no, or not applicable. Your responses to each of these sub-criteria should guide you to a rating of exemplary, very good, adequate, or problematic for the criterion as a whole. You also have the opportunity to enter comments for each criterion to explain your ratings. In writing your comments, remember that they can be shared with the site authors and developers and can be especially helpful for providing feedback to help developers revise their sites.

Based on your ratings of all of the criteria, a final score is calculated by the review system, where exemplary = 4 pts, very good = 3 pts, adequate = 2 pts, and problematic = 1 pt. The total possible score is 16. The final rating will be based on all three reviewers scores and the editor's decision.

At the end of the review, you have the opportunity to give specific advice to the authors and developers of the site about changes they could make for their site to score higher. Additionally, these comments serve future site developers: We will compile and edit these comments and share them with future developers to give them a sense of the common problems and pitfalls. Since we hope to use these in both ways, please take time to write these comments, even if you feel that the site is no longer maintained and unlikely to be modified. You can also return to your submission and revise it until the editor compiles all reviews.

The rest of this document provides guidance for scoring the criteria according to the site review rubric.

Criterion 1: Relevance to the NAGT Audience

This criterion has three sub-criteria that will be scored and will sum up to the total:

- **Is the audience for the project well-defined?** *In answering this question, consider:*
 - Does the project directly state its target audience, who the resources are for?
 - Will a casual user be able to distinguish immediately if the materials are relevant for them?
 - The target audience does not need to be large, but it should be described well.
- **Are the topics and strategies described relevant to the NAGT membership or some subset of the membership?** *In answering this question, consider:*
 - NAGT membership includes K-12 teachers, college and university faculty, informal educators, interested professionals, and graduate and undergraduate students. Is one or more of these audiences targeted?
 - The project focus may be broad or narrow within the geosciences; it may be applicable for a very specific group (i.e. geophysics faculty teaching an upper-level geodynamics course) or a very broad group (high school Earth science teachers), as long as the topic and strategies are relevant for that audience.
- **If local or regional projects, are they relevant/adaptable to other regions?** *In answering this question, consider:*
 - Much of geoscience is place-based, and we encourage projects that focus on a particular location. If a project has a local or regional focus (e.g. coastal hazards in Florida), how easily can it be adapted to another region?
 - Alternatively, is it a place or region that many instructors would be likely to address, even if it's not their own region (e.g. the Grand Canyon, Hawaii)?
 - A project does not have to be applicable absolutely everywhere to be exemplary, but it should be adaptable beyond a single location.

Criterion 2: Grounding in Research and Best Practices

This criterion has four sub-criteria that will be scored and will sum up to the total:

- **Is the context of and need for the project made clear?** *In answering this question, consider:*
 - What need does this project address?
 - How well did the project leaders document why this site exists?
 - Are other projects acknowledged as appropriate?
 - It should be clear why the materials on the site were developed and how they fit in to existing resources.
- **Do the overall goals of the project reflect what we know from the research on learning and best practices in teaching?** *In answering this question, consider:*
 - To what extent does the design of the project build on the research base and best practices?
 - It should be clear what strategies are being employed in this project - it may focus on a single strategy (e.g. case-based learning) or active learning in general.
- **Does the project make effective use of those best practices?** *In answering this question, consider:*
 - Does the project "practice what it preaches?"
 - Do the resources available in the site help users implement the best practices and fill the need?
 - Many sites include dozens of activities within them—you do not need to look at all of them. Explore at least five activities or resources from across the site in enough depth to determine if best practices are part of its materials/resources.

- **Does the project include appropriate and credentialed references?** *In answering this question, consider:*
 - Does the site as a whole have supporting references from the peer-reviewed literature for both pedagogy and science?
 - Are data appropriately cited?
 - Again, it is not necessary to review each activity to see if there are references in each one, but it is appropriate to explore a few.

Criterion 3: Robustness

This criterion has four sub-criteria that will be scored and will sum up to the total:

- **Is the site well-organized, easy to navigate, and is it clear what you are going to get when you go places?** *In answering this question, consider:*
 - A relatively experienced web user should feel comfortable navigating the site.
 - Links in the left-navigation should lead to pages with the same titles, and alignment between titles and what you get should be clear.
- **Are the resources provided sufficient to inform and support the new user?** *In answering this question, consider:*
 - What is the experience of visiting this site like for the new user?
 - If you were not in on the ground floor of producing the materials, is it comprehensible?
- **Does the quantity, depth, and breadth of the available resources match the scope of the project?** *In answering this question, consider:*
 - What is the ratio between the "packaging" of the site and the usable, takeaway resources?
 - A small project may have only a few usable resources; a large project should have a lot.
 - A "usable resource" is not necessarily an activity - it could be an assessment, a teaching strategy, etc.
- **Is there alignment between the context, goals, and resources?** *In answering this question, consider:*
 - The project's goals should be aligned with the context, the resources developed to support those goals, and the quantity of resources provided.

Criterion 4: Accuracy and currency

This criterion has three sub-criteria that will be scored and will sum up to the total:

- **Are the project materials scientifically accurate and free from misleading statements?** *In answering this question, consider:*
 - Again, for very large projects, it is not necessary to read through each activity or page of the project to evaluate this criterion.
 - Explore at least 5 different parts/aspects of the website in order to check for accuracy.
- **Is the project site actively maintained?** *In answering this question, consider:*
 - When was site last updated (can look at the date at the bottom of the page)?
 - Does it contain references to things that are coming that (in fact) have already passed, or have "coming soon!" on pages that are years old?
 - It does not have to have weekly or even monthly updates to be actively maintained, but look for evidence that it is "tended".
- **If not currently maintained, are the materials of an enduring quality?** *In answering this question, consider:*
 - Not all sites need to be constantly updated to stay current. Some skills and content have enduring qualities that allow them to persist longer.