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ENVIRONMENTAL
STRATEGIES

NASA
Earth & Space Science Education
Product Review

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NASA SMD Earth and Space Science Education Product Review



What is it?

An Independent peer review of NASA Earth and space science education products managed by IGES.

Coordinated with NASA Science Education and Public Outreach Forums (SEPOF)

The Spring 2012 Review is underway!

Reviewers -- [Login](#) to get started. Username and password information should have been e-mailed to you.

Developers -- [Login](#) to submit a product for the review.*

The NASA Science Mission Directorate (SMD) sponsors independent peer reviews of its Earth and space science education materials. Panels of both scientists and educators (e.g., classroom teachers, college faculty, NASA teacher trainers, curriculum developers, and national education standards experts) review the education products. The purpose of these peer reviews is to ensure education products distributed by NASA are of high quality and meet rigorous standards, and to provide feedback to product developers.

For more information, download the latest [Call for Products](#) or read through the [Review Instructions](#).

View the [Calendar](#) to see when the next review is scheduled.

Read the [Guidelines](#) for developing a NASA SMD education product.

View the [Review Criteria](#) used to evaluate products.



The
Product
Review
Website

<http://nasareviews.strategies.org/>

Review Schedule

- Currently four reviews a year, interim reviews available by need
- Schedule online:

<http://nasareviews.strategies.org/calendar.html>

SMD Science Education Product Review



- **Education Products** included are K-12 curriculum materials, postsecondary and education resources for formal & informal audiences
- **All formats** are accepted for review
 - Web based
 - CD/DVD/video tape
 - Print/posters/lithographs/brochures/bookmarks
 - PDF/Word/PowerPoint
 - Plug-in/Java dependent applications
 - Braille items
 - Etc.

Login

* indicates a required field.



To get started, use the form below to register for an account. If you already have an account, [click here to login](#).

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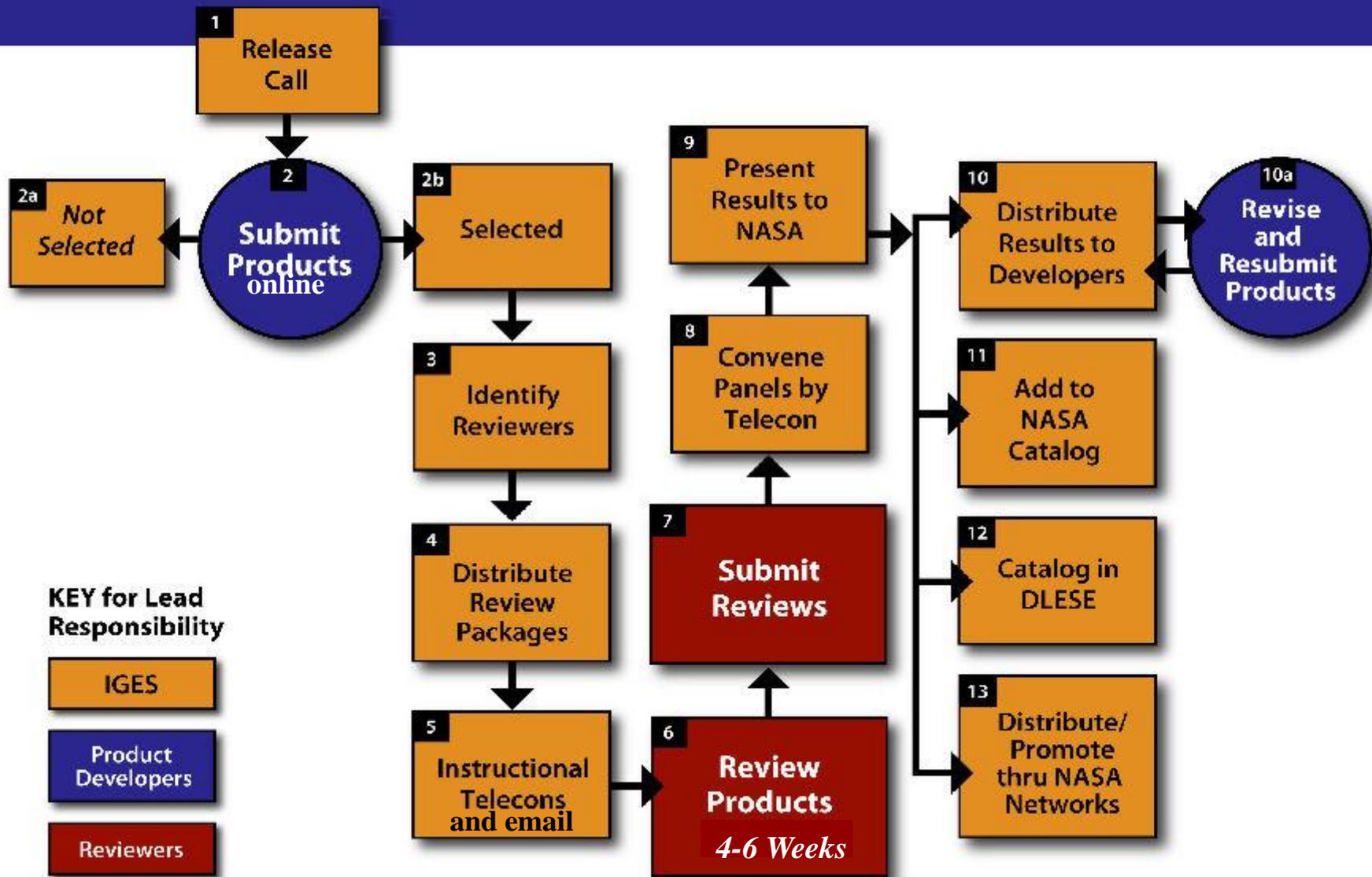
Password:

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Create an account* or log in to add new products for review

* A one time process.

The Review Process



Review Panels

Education and Science Expertise

Typically 5-7 reviewers per panel
up to 4 education, up to 3 science
including:

- K-12 classroom teachers
- Curriculum designers
- University faculty (Education and Science Departments)
- NASA educators (AESPs and ERCs)
- National education standards
- Earth scientists and engineers
- Special expertise (e.g., Braille, Spanish)

Sources for Reviewers



Education

NASA Programs/Networks

- Education Specialists (ERCs & AESP)
- NASA Explorer Schools
- Other Education Networks
- NSTA's Building a Presence for Science
- IGES networks
- ASP Meetings and other national meetings

Science/Engineering

- NASA Centers
- Universities
- Mission E/PO

Review Process Benefits



NASA

- Helping to maintain high standards for NASA Earth science education products: scientific/technical accuracy and educational value/effectiveness

Reviewers - Science

- Involves science community in E/PO
- Scientists who are already involved in E/PO – learn more about what educators value in education resources (e.g. National Education Standards)
- Good introduction for scientists who have not been involved in E/PO

Review Process Benefits



Reviewers - Educators

- Engages NASA education community
- Learn about NASA science education products to use in their classrooms/programs
- Provide perspectives “from the field” as well as knowledge of other NASA programs/resources

Product Developers

- Receive feedback on how to better meet NASA and educator needs
- Often receive suggestions for additional materials educators need
- Distribute materials through NASA education networks



Review Process Product Survival Guide

Tips for developing an excellent
NASA education product.

These guidelines (greatly
expanded) are available on the
Nasa Reviews Website

How to Help Your Product Succeed



- Conduct Formative Reviews and Field Testing
 - Even when the product is still 'on the way'
- Target a Specific Audience
 - Grades 7-8 vs. Grades K-12
- Design the Product for this Target Audience
 - Vocabulary
 - Standards and concepts

How to Help Your Product Succeed



- Support National Education Standards
 - State standards are a bonus
 - Be specific and provide links to exact content or a detailed table that relates specific standards to specific exercises/units/lessons
- Incorporate Student-Centered Approach
 - Not cookbook style lessons
 - Inquiry-based, problem-solving opportunities!
- Proofread the Product

How to Help Your Product Succeed



- Provide Appropriate Assessments
 - Help the teacher assess student comprehension
 - Teacher guide with sample rubrics, grading/scoring guidelines, answer keys etc.
- Include Specific References and Further Investigations
 - Don't reference the top level of a Website – go to the specific supporting information or materials.
 - Include books, magazine/journal articles as well as electronic resources/Websites.

How to Help Your Product Succeed



- Make sure all links on the Website are active.
- Provide color keys/legends/units of measurement on all figures and data.
- Use metric units throughout the product
 - Convention allows English equivalent in ()'s
 - e.g. 120 km (74.56 miles)

How to Help Your Product Succeed



- Check your math on all worked examples, problems, conversions, and keys.

And for the next step:

- Address Accessibility and Section 508
 - Web sites, Videos, DVDs, Software
 - e.g. No Word or PPT only documents
- Follow the Visual Standards for NASA Communications Products
 - The CMR

Review Results



- A summary of panel findings are delivered after a panel telecon
- A final recommendation is supplied to the developer
- What do the recommendations mean?

Review Results



- Recommended can be
 - Recommended as is
 - Congratulations!
 - Recommended, revisions next update
 - Suggestions are supplied, but not required
 - Recommended, limited audience
 - Maybe a reduced (or an expanded) audience
 - Recommended, distribution via teacher workshops
 - Suggested that background or training be offered for teachers that feel they need it.

Review Results

- **Minor Revisions**
 - Some specific revisions are required and listed
 - The product may resubmitted at anytime
- **Medium Revisions**
 - More extensive revisions are required and listed
 - Probably won't need to go through panel review again
- **Major Revisions**
 - Will need to be submitted to a scheduled panel review once revisions are addressed
- **Not Recommended** - a redesign/fresh start needed

Review Results

- What does it mean to address a required revision?
 - The revision may be adopted
 - The revision may be labeled as impractical, a distraction from product's intent, or incorrect
 - A short explanation must be supplied to IGES and/or the forum upon resubmission explaining the developer's thinking

Passed Products

- Are listed as official NASA products
- Listed at the NASA Portal
- Listed at DLESE (Digital Library for Earth System Education)
- Will be included in the new SMD “One-Stop-Shop” Website for NASA EPO
- Some are featured in Education Product Webinars...

NASA Earth & Space Science Education Product Webinars



Objectives

- Introduce education materials that have passed the review (and those recommended for professional development).
- Provide NASA educators the opportunity to learn from, and work directly with, *product developers*.
- Provide broader *science content* lectures from scientists in the field with Q&A

Participants

- NASA education specialists (AESP)
- Educators Resource Centers (ERCs)
- NASA Explorer School Coordinators
- And, sometimes, those interested in NASA science from the general public



NASA Earth & Space Science Education Product Webinars



Outcomes

- It promotes distribution of Earth & space science education materials through existing NASA infrastructure
- It is an outstanding professional development experience for NASA educators
- Aids ERC and AESP educator workshop preparation

NASA Earth & Space Science Education Products Webinar



Webinar invitation distribution

- ERC network
- AESP network
- Solar System Ambassadors and Night-sky Network, NASA Portal, CORE
- NASA-wide listserve

Visit www.strategies.org → Education and Outreach → Professional Development for upcoming opportunities

Webinars are archived at video.strategies.org



close window »

Welcome to the Earth and Space Science Education Video Professional Development Portal

Access professional development resources for educators that explain, demonstrate and present NASA Earth and space science educational products and science content. The site includes recordings of live events conducted by IGES (www.strategies.org), as well as other organizations conducting NASA Earth and space science teacher professional development.

Recently Added Videos

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- Top Stars	View Video
- Making Adobe Acrobat Documents 508 compliant, Part 1	View Video
- Heliophysics e-Retreat #1	View Video
- Enrichment Problems in Space Science XIV	View Video
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- Enrichment Problems in Space Science XI	View Video
- Enrichment Problems in Space Science X	View Video
- The Sun in a Different Light The Ineffable Math...	View Video

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Enter Videos Yourself!



This video catalog is designed to also make available Earth and space science education videos that teachers have found useful in the classroom.

Post the link to your videos at:

<http://video.strategies.org/videos.php>

Username: videocreator

Password: iges_strategies

We can also arrange to host the video for you – for NASA funded projects.

Become a Reviewer!



- We always need scientists from all Earth and space sciences
- We always need educators from all grades, K-graduate school and all forms of informal education
- Add your name to the **sign-up sheets**
- We'll send you a reviewer application form soon
- We offer small honorariums for non-federal employees – but anyone can review!

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