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Dear Educator,

We hope your experience using this CD to assist your students in creating their own National Geographic Explorer Magazine will be educational and fun! A classroom magazine project can provide a treasure trove of activities. The variety of forms and topics can be so varied that everyone can make a valuable contribution.

Each educator and the plan they develop will determine the amount of time necessary to produce a student or classroom magazine. You will find the following Educator's Guide useful in the planning and implementation of this exciting writing project. Useful strategies and ideas provide you with lessons that will teach and reinforce student literacy and thinking skills. The outcome will be a student made electronically published or printed version of National Geographic Explorer.

Adapt the suggested activities, as necessary for your grade level or specific classroom needs.

In this Educator's Guide you will find:

- Learning Outcomes and National Standards
- Getting Ready activities for pre-teaching
- Diving In activities for implementing the magazine writing project
- Going Further activities to assess, celebrate and extend student learning
- Resources
- Handouts

“Writing Improves When Publishing Is the Goal”

Collier

Standards

Student Learning Objectives:

- Students will learn the process of creating a magazine
- Students will learn the different roles needed to publish a magazine
- Students will learn how to conduct research on a given topic
- Students will use nonfiction texts for research
- Students will learn how to use technological resources to gather information
- Students will learn how to evaluate and synthesize data into meaningful writing
- Students will use a wide range of strategies to write effectively
- Students will improve their use of language conventions and mechanics
- Students will develop revising and editing skills
- Students will develop cooperative working skills with peers

National Standards for Students: from NCTE/IRA

- Students apply a wide range of strategies to comprehend, interpret, evaluate, and appreciate texts.
They draw on their prior experience, their interactions with other readers and writers, their knowledge of word meaning and of other texts, their word identification strategies, and their understanding of textual features.
- Students adjust their use of spoken, written, and visual language to communicate effectively with a variety of audiences and for different purposes.
- Students employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes.
- Students apply knowledge of language structure, language conventions, media techniques, figurative language, and genre to create, critique, and discuss print and nonprint texts.
- Students conduct research on issues and interests by generating ideas and questions, and by posing problems. They gather, evaluate, and synthesize data from a variety of sources to communicate their discoveries in ways that suit their purpose and audience.

National Standards for Students: from ISTE

- Students will demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.
- Students will apply digital tools to gather, evaluate, and use information.
- Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.

Getting Ready

Overview:

The following lessons will provide teachers with activities that can be used to review, instruct, model and motivate students as they prepare to create their own National Geographic Explorer Magazine.

Visual Cues: Bulletin Board Curiosities

Put up a large sheet of paper on a bulletin board. Write the title of a science or social studies topic that will be studied in the near future at the top. Over several days tell students to write any questions or curiosities they have about that topic directly on the paper. This can springboard into guided learning for that unit and develop students' questioning skills needed as they conduct research for their magazine articles.

Read-A-Loud: Brain Tickling

Read an appropriate non-fiction book to the class. Have students write down or tell you things they find interesting or have further questions about. The teacher can model this activity by participating too. List responses on a two column chart with "interesting" written on the top of one column and "?" at the top of the other. Point out thoughts or questions that continue to come up. Discuss how these ideas can be the start of a research project and lead into writing a short report or article. Note: There are some great non-fiction Big Books that even older students would enjoy for a read-a-loud.

Informational Text: Let's Look Further

Ask students to explain the difference between fiction and nonfiction in their own words. Together or in small groups create a list of common nonfiction resources in print and on-line. Point out examples of nonfiction resources in their classroom or on the computer that may not be mentioned. Conclude by asking students, "Why is nonfiction such an important genre?" These are some responses to listen for: to learn new information, to understand the world we live in, to find answers to our questions, to make connections in our lives with knowledge about people, places and things and to become good writers of nonfiction.

Advance Organizer: Read Different Kinds of Nonfiction Text

Before launching into this magazine project, prepare students by reading different kinds of nonfiction text to them. Over several days or weeks read textbook excerpts, encyclopedia entries, nonfiction trade books, and magazine articles from National Geographic Explorer. Ask students how these are the same? How are they different? Which readings did you like the best? Why?

Story or Article: What's the Difference?

Find a picture book or short fiction story that uses one of the National Geographic Explorer CD topics as its main idea. Example: topic – MOON. Use stories like: Goodnight Moon, Owl Moon, Walk Two Moons, or Sing Down the Moon. Then read a science magazine article about the moon.

(Go to www.nationalgeographic.com/education and type in moon in the search bar) Ask the class to tell you how the two examples are different. Emphasize how we need and use informational text in our lives at all ages, all the time. Support the joy and pleasure we receive from reading fiction too. Each has its place in our world.

Fact or Opinion: A Closer Look

It is easy for students to state an opinion as fact or confuse the two completely. In getting ready to research and write an article for their National Geographic Explorer Magazine have students examine articles in nonfiction text and find sentences that are fact and those that would be considered opinion. (see handout) If opinions are not obvious, ask students to write three opinions of their own about the topic.

Newspapers vs. Magazines: Examine the Content

Bring in newspapers and copies of National Geographic Explorer. Let students examine both kinds of printed material. Ask students to use a Venn Diagram (see handout) to show how newspapers and magazines are the same and how they are different. In a class with young students the teacher can show the class the differences and discuss. Check for understanding by having students make up article titles and let the class guess if you would more likely find it in a newspaper or a magazine. Make special note of some content that could be found in both such as; global warming, new star discovered, extinction of a species, etc.

Read to Learn: Coding

Copy a short article and pass it out to students or use an old issue of National Geographic Explorer. Have students read alone or with a partner. Tell them to put an N by new information, put a ? by things they have questions about and a W by words they don't know. (Use small sticky notes if you don't want students to write on the hard copy.) Discuss how they can use these codes to now go back and clarify or expand their learning. This method can be used when students later read for information in preparing their magazine articles. Expansion: Group students that may have common questions about the article. Given appropriate resources let them work together to find out the answers. This will provide practice in using a variety of resources, build community and stimulate inquiry!

Inferences: Read Between the Lines

Nonfiction or informational text often requires readers to draw inferences. Help students recognize passages that require inferential thinking. They may be surprised how automatically this is done.

Example: "The herd of elephants had walked for hours across the dusty grasslands. They quickened their pace as they saw a flowing river come into view." What did the elephants want? How do you know? What words were clues? Extension: Now let students try writing sentences or short paragraphs that require inferential thinking. Providing a few starters may help: animals' thirsty, animals' hungry, tornado weather, potential volcanic eruptions, and cultural celebration.

Heads Together: Read Text and Using the Web

As a lead up activity to doing their own research, have students work with a partner to read a piece of nonfiction text and also explore one website. Tell students while reading with a partner to talk about the information and decide what information is important and interesting. Then when exploring a website together (see list of web resources included) tell students to note what additional information they find. Does some of the information differ or contradict the other? Which method did they like using the most? Why? What questions do they have about using book indexes or web site home pages to get the information they need in the most expedient way?

Photos: What Do They "Tell" Us?

In preparation for students selecting which National Geographic images they will use in their magazine, a little practice at photo analysis is important and FUN! Use any photos you want or examples on this CD and ask students to examine each photo thoroughly. Using the handout provided or on a sheet of paper, have students list only what they see "details," then have them write words or phrases that express what the photo "tells" them. Example: The photo may show a volcano spewing smoke. Students may use words to describe the colors, size, or other features they observe. Then when asked what does the photo "tell" them, they could infer the volcano looks like it may erupt. When photos are selected to accompany their magazine articles, a good match is important.

Magazine Construction: What's beyond the cover?

Give students a copy of a current or past issue of National Geographic Explorer. Working with partners, have students list everything they see that is a part of the magazine. This may be an opportunity to teach key vocabulary as well. Words to watch for: cover, table of contents, page numbers, articles, pictures, charts, diagrams, graphs, titles, headlines, subheads, glossary, questions, fonts, boldface print, color print, italics, bullets, captions, word bubbles, masthead, credit line, sidebar, etc. Idea: It can be fun for you to count up the number of items you see before you assign this activity to the class and tell them there are "x" items they should find.

DIVING IN

Overview:

The following lessons provide teachers with ideas and activities to create a classroom of magazine writers. Students will develop and enhance their writing and editing skills through writing that is meaningful to them. Different aspects of the process are addressed with suggestions which provide greater student understanding of the project scope.

Determine Approach: How Will I Use This Project?

First consider grade level curriculum, learning objectives and time available. Then think about some of the following ways this magazine project could be used in the classroom:

- as a team building activity with instructional benefits
- to motivate students while teaching technology and curriculum integration
- as an alternative assessment tool for language arts, science and social studies
- as a culmination project after a unit of study
- create a new magazine three times during the school year moving from whole class, to small groups to individual creations

Research and Writing Environment: Informative, Inviting and Comfortable

Promote reading, thinking and writing by making classroom areas comfortable and accessible. Provide baskets of nonfiction books and magazines, globes, maps, atlases, travel brochures, museum and zoo publications. Don't forget dictionaries, thesauruses, almanacs and encyclopedias. Most importantly provide time and access to computers. Walls are part of the environment too. Consider a chart with the steps for researching and writing a magazine article. A list of the magazine job assignments, the project timeline, and key websites should be visible as well. *Remember: Local public and college libraries allow teachers to checkout large numbers of children's books.

Magazine Jobs: Let's Take a Look

In examining an issue of National Geographic Explorer point out the masthead and the list of jobs needed to get a magazine put together from ideas to print. Some of the jobs are listed and duties explained in the included handout. Discuss with students the importance of each job and talk about how they must all work together to produce a magazine. Ask students to talk about what happens if someone doesn't complete their assigned task. How are others impacted? Relate to other situations within the school or community setting, i.e. cafeteria workers don't cook the hamburgers, the custodian doesn't empty wastebaskets, the bread delivery doesn't get to the grocery store, etc.

Job Applications: Students Apply

All students may be writers for the magazine, but other jobs can be applied for on the job application handout. Determine if all students must fill out an application and what process will be followed for making assignments. Some jobs could be assigned to pairs or a team of students. Also jobs could rotate each week to allow students to have greater understanding of a particular job assignment.

Extension: Using the student contract form, have students sign off on their magazine assignment and duties required.

Setting a Timeline: Monitoring Student Progress

Once the teacher has established the length of time for this magazine project, specific dates and deadlines should be announced. In keeping with the production of a real magazine, deadlines are critical and essential. Giving students checkpoints and reminders along the way will be important too and help keep students focused and on task. Included in the handouts is a log, where students can maintain a record of their progress. A visual reminder of due dates and daily accomplishments will provide on going self-evaluation and a talking point for the teacher if necessary.

Narrowing the Topic: Umbrella Topics

Teachers may find the images on this CD fit with curriculum taught or decide to let students explore an area of personal interest. Some topics are too broad to research, so examining possible subtopics is important. Use the umbrella handout to have students examine a main topic and explore the array of subtopics that fall beneath it. Example: Rain Forest: world locations, plants, animals, birds, people, destruction, medical discoveries, etc.

Focus on Content: Idea Web

Ask students to write their selected topic in the center of their web. (see handout) Then give students 5 to 10 minutes to brainstorm and write ideas and questions about that topic around the center of the web. Use as a springboard for zeroing in on important information that should be used or researched for a magazine article. Help students prioritize information from most important down to interesting but not essential. Extension: The teacher can do his/her own idea web and walk through the steps they would use to investigate ideas and questions, organize information and write the article. Steps highlighted can be put on a chart and displayed as a reminder to students. This is a good time to review plagiarism and how to put information into your own words.

Activate Prior Knowledge: KWL Chart

To activate prior knowledge and clarify thinking about the necessary research for a nonfiction magazine article, a KWL Chart works well. As a whole class, in small groups or independently have students write everything they KNOW about their topic, then move on to listing questions about what they WANT to find out. As they investigate various resources they can complete the LEARNED column with answers to their questions along with other interesting information. Reminder: Provide and require students use many resources to get information and allow adequate time to do so. This will be the foundational piece for their writing. Extension: (see above under Idea Web)

Struggling Readers: Helpful Reminders

A magazine project can present numerous difficulties for the struggling reader or ELL student. Here are several ideas that will make this activity a successful experience for these students. Provide audio books so students can listen to the information they need. Let students record and interview an expert on their topic. Use graphic organizers that will allow students to fill in needed information. Working in pairs can provide the help and confidence needed to get the job done. Also consider magazine production assignments such as photo editor or layout supervisor, etc.

Primary Source Information: Experts - Just A Click Away

Tell students how talking to an expert or others with first hand knowledge of their topic is another way to gather important information. Many experts can be accessed through emailing museums, zoos, universities and non-profit organizations dedicated to the area of student interest, or try www.askanexpert.com. In addition, students can find an ePal their age at www.ePal.com anywhere in the world. Help students prepare appropriate questions to be used in emails or interviews when trying to gather information for a report or article. Students should give their contact a deadline for their response to encourage a prompt reply. Reminder: Letters can also be written to obtain expert answers to questions when an email address is not available. Review proper letter format including heading, greeting and closing.

Organizing Thinking: Pulling it Together

Depending upon the age of students, organizing information may take on many forms. For some, introducing or reviewing the use of note cards will be important. Others will be ready for simple to detailed outlining. Less structured formats may include the use of information lists (KWL Charts), idea webs or concept maps. As needed, show students how to put information into sequential order that makes sense. Then they will be ready to organize their material into a cohesive product. Demonstrating this process to students will increase their understanding. Prepare a visual aid to show students the steps you would take in pulling it all together.

Writer's Voice: Give Life to Writing

Sometimes nonfiction is looked upon as dry and boring to read, like reading an encyclopedia. Show students by sharing paragraphs from National Geographic Explorer, that nonfiction can be interesting and filled with vivid images. Point out that nonfiction can be written in 1st, 2nd or 3rd person. To practice this skill, give students an easy topic and have them write two or three sentences in each 1st, 2nd and 3rd person. Another activity would be to give students a short nonfiction paragraph and have them determine in which person it is written and rewrite it in the other two. Extension: Visually provide a paragraph from National Geographic Explorer alongside an encyclopedia entry on the same subject. Ask students to tell you what makes these two pieces of text read and sound differently.

Adjective Web: Spice Up Descriptions

Once the topic for a magazine article has been selected and researched, students will be eager to start writing. STOP! First give students a chance to fill their toolbox with vivid imagery and descriptive words to make their articles stand out. Using the web handout, have students put their topic in the center and only write adjectives or phrases that describe the topic around the web. A terrific activity that will add zing to their nonfiction writing.

Self Edit and Revise: YES!

Revising is a critical part of the writing process. When preparing for publication students must recognize the need for polished work. Review the steps used in revision, and highlight for the age and skill level of students what specific things they should be looking for, such as; grammar, mechanics, sentence structure and of course content. Were the questions answered that were to be addressed in the article? Do the paragraphs flow? Does the information reflect facts that were researched? Several revisions may be required. A self-edit/revision handout is provided.

Glossary or Word Box: Magazine Essentials

Ask students to review their finished articles and select words that may need to be put in a vocabulary word box or glossary section in the magazine. Discuss what kinds of words are often defined in text, i.e. scientific names, infrequently used words or new vocabulary for the age of the audience. Share examples from issues of National Geographic Explorer.

Visual Aids: Diagrams Help the Reader

For some topics a diagram may aid understanding. Discuss with students where diagrams can be useful, i.e. the parts of a flower, parts of an insect, layers of the earth. Does their topic lend itself to a diagram? In small groups have students discuss if a diagram is needed and what it could look like. Refer students to examples in National Geographic Explorer.

Captions & Subtitles: Less is More

After students or photo editors have selected the National Geographic photos that will be used, providing appropriate captions or subtitles will be necessary. Helping students practice using fewer words to express a thought will be important. Ask students to write three captions or subtitles for their picture, share with a partner and decide which is best. Then look at it again and see if any unnecessary words can be removed without changing the meaning of the caption or subtitle.

Peer Editing: Next Step

Revising and editing are essential for a writer. After students revise and self edit they are ready for peer editing. A peer editing rubric has been included. Then if there are assigned editors for the class magazine, they should be given the task to do final reads and edits on work submitted. Review with the class the items to look for when peer editing. Mention should be made about how constructive criticism sounds and the importance of finding strengths in student work too. Extension: If a class magazine will have a limited number of articles, editors should participate in selecting submissions.

Finished Article: Am I Done Yet?

Helping students know when they have a finished product is not easy. Use the checklist included in the handout section as a way for students to self monitor their progress.

Publication: Enjoy!!!!!!

The day arrives when all is complete! Publication is the next step that can be done by printing it out and/or publishing it online by downloading to www.ePal.com. Students around the world can enjoy your students' creation. How about joining in with other classrooms on different continents to create a National Geographic Explorer Magazine together? The options are only limited by your ideas!

GOING FURTHER

Overview:

When students have completed their own or classroom National Geographic Explorer Magazine, there are a few follow-up activities you may want to do. These include an evaluation of the magazine, ways to celebrate and share the magazine with others as well as activities that would integrate their learning into other areas of the curriculum.

Evaluation: How Did I Do?

When a large project like this has been completed, it is good to have students reflect on their work. An evaluation handout has been included if you would like to have students look back at their accomplishments during this process.

Distribution: Marketing Staff

If the student or class magazines are printed out and multiple copies can be made, then a marketing plan should be designed. Discuss with students that this is a major part of the magazine business. If magazines can be "sold" to parents or others, the class should determine how, where and when this will be done. In addition talk about the money earned and how it will be used. There may be printing costs that need to be paid for first. Then consider contributions to organizations related to the topics written about in the magazines. There are many options such as; Save the Rain Forests, Save the Whales, Adopt a Manatee, etc. etc.

Culmination: Time to Be Proud

There are many ways to culminate this project and share the student magazine with others. One way would be to plan a "First Edition Party" and invite parents or other classes to attend. Invitations could be sent out and students could be given an opportunity to talk about the steps involved in putting a magazine together. Awards could be given for: Best Cover Design, Best Page Layout, Most Interesting Story, Funniest Story, Weirdest Information, Web Wizard, Research Professor, etc. etc.

Parent Involvement: Show Them the Ropes

If parents are invited to a class presentation or party celebrating the "First Edition," it is a perfect opportunity to show them computer skills students have learned. Use available computers and students to show parents how they accessed information, websites that were used and how they put the magazine together with the photos from the National Geographic Explorer CD. Idea: Give parents a one page handout of websites that students can use for research and information gathering at home or where computer access is available.

Expert Panel: Students Report

At the completion of this project, students should be experts on the topic they researched. Students could participate in an "Expert Panel" and take well thought out questions from the rest of the class about their topic. This is one way to develop oral speaking skills as well as have students be accountable for their learning. Writing and asking good questions is also a skill students can strengthen with this activity.

Lessons Learned: Student Tips

After the completion of this project, students could be asked to write down three or four ideas that would have made things work better. The teacher can ask the class to write these for next year's students so they can avoid mistakes that they made. This can be a letter writing assignment or simply making a list of suggestions. This can be done as a whole class activity with the teacher making note of ideas shared.

Math Connection: Story Problems

Using the information and data gained in researching their topic, students can now practice writing and solving story problems with these facts. Problems can be exchanged with other students to be solved, or the teacher can compile a page of the best story problems for a class assignment.

Math Graphs: Favorite Article

Give students a chance to vote on favorite articles, covers, photos selected, etc. Then after data is compiled, students can practice making bar graphs to show the results. This activity can be adapted to the age of students and their graphing capabilities.

Language Arts: Thinking Skills

To reinforce all the information learned from doing the magazine project, students could be given the challenge of developing a game board. Questions and activities can be related to the data gathered in the research process. Students with similar topics could work together on a joint game board.

Poetry Connection: Be Creative

Have students write a poem about their magazine topic. It might be fun to show students how to write a diamante poem, haiku or some other poetry form that would be appropriate for the students and topic.

Geography Connection: Map It!

Either on a class map or individual student maps, have students locate and mark the various locations around the world where the content of their magazine topic lives, takes place, etc. If the topic was snow leopards, have students mark the areas where snow leopards are found. If students wrote about typhoons, they could mark the areas of the world that have experienced the worst typhoons in the last 20 years.

WEB RESOURCES

www.nationalgeographic.com/kids

www.qjkids.com

www.kids.yahoo.com/reference

www.webquest.org

www.askanexpert.com

www.theawesomelibrary.org

www.kidsclick.org

www.library.thinkquest.org

www.cousteaukids.org

www.oceanicresearch.org/education

www.pbskids.org/kratts

www.pbs.org/journeytoplanetearth/profiles

www.allsafesites.com

www.edsitement.neh.gov

www.si.edu/encyclopedia.com

www.geography.about.com

www.kathyschrock.net/navigating

www.geographyzone.com

www.ecokids.ca

www.dnr.state.wi.us/EEK/

www.fema.gov/kids

www.hurricanehunters.com/

www.kidsface.org/

www.wxdude.co

www.toxtown.nlm.nih.gov

www.geophys.washington.edu/tsunami/intro.html

www.weatherwizkids.com

www.amazing-space.stsci.edu

www.marcsobservatory.com

www.nasa.gov/audience/for_kids/home/index.html

www.kids.msfc.nasa.gov/

www.jpl.nasa.gov/kids

www.science.nasa.gov/

www.spacetoday.org

www.astro.wisc.edu/~dolan/constellations/

www.solarviews.com/

www.windows.ucar.edu/

www.animalcorner.co.uk

www.animaldiversity.ummz.umich.edu/index.html

www.insectclopedia.com

www.kidsgowild.com

www.kidsplanet.org/

www.nwf.org/kids/

www.seaworld.org

www.yucky.com/

www.kidsknowit.com

www.polarbearsinternational.org

www.panda.org

www.globalwarming101.com

www.nationalzoo.si.edu

www.birds.cornell.edu

www.kidssavingtherainforest.org