Formats: Web/Interactive

Digital media such as Web sites, CD-ROMS, and DVD-ROMS all share similar functionality and content options. They run on a computer, and they allow your audience to create their own paths through your educational content.

Basic Web pages use a code called HTML, or Hypertext Mark-up Language. HTML allows you to place text and images and, increasingly, to control how and where on the page these elements appear. HTML also includes coding tags that allow you to link from one page to another or one place in a page to another, as well as to define areas of an image that can also serve as links. Other compatible codes, such as JavaScript, can add further functionality to Web pages.

A software application called a Web browser allows you to view HTML pages. You can add additional media types and interactive functionalities to a Web page using software called a plug-in. The user may need to install the correct version of a plug-in in order to see such elements. Plug-ins are generally available for free and can be downloaded from the Web using your browser.

Plug-ins allow you to include many different elements on your Web site, including video, print layouts, and interactive or animated materials. They add useful functionality to your site, but you should check that the plug-in you require is readily available and will work across various types of computers. If you require too many plug-ins, or uncommon ones, your audience may be unwilling or unable to use your site.

If users will need a plug-in to access features on your Web site, make that clear on the home page or on pages that link to the features, and provide links to the sites where the plug-in is available for downloading. Provide an alternate version of a feature, such as a text- and image-only version, that will be accessible to people who can't use the plug-in version because of its larger download size, or because, in the case of visually impaired users, the plug-in version is not compatible with assistive technologies, such as screen readers. (To learn more about Web-accessibility issues, see the Making Media Accessible section of this guide.)

CD-ROMs and DVD-ROMs are compact discs that run on a computer drive. They can serve as "hard copy" distribution for your Web pages, allowing people to see your content (but not links to other sites on the Web), regardless of whether they have an Internet connection. These discs may be especially useful if your digital content contains many large media files, such as digital video, which can be slow or difficult to download from the Internet.

CD-ROMs and DVD-ROMs can also be developed using computer languages or authoring tools other than HTML and plug-ins. You will need to work with a skilled computer programmer to
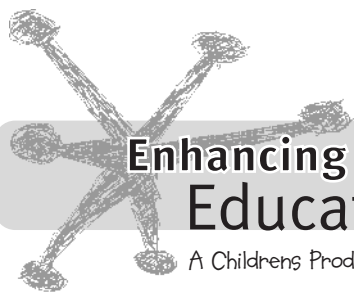
© 2004 Corporation for Public Broadcasting   http://enhancinged.wgbh.org/kids/

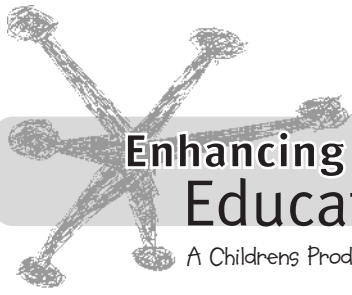*Formats:* Web/Interactive

Web/Interactive (cont'd)

produce these interactive media. Producing a CD-ROM or DVD-ROM follows much the same production process as producing a Web site, except that you need to schedule manufacturing and distribution of the final product.

Note that a DVD-ROM is different from a video DVD; a video DVD runs on a DVD player rather than a computer. You can add educational enhancements to a DVD of your video; these are described in the Video Formats section of this guide.

Characteristics of Web/Interactive Media
- They are neither time-restricted nor subject to a broadcast schedule. People can come to them at any time and continue to use them long after the initial broadcast window of the video program.

- They are visual, textual, and interactive. These media can present still and animated imagery effectively and show limited amounts of motion video. They can also make use of audio (to help a child learn to read, for example). Users can control the way they access content and can "make things happen."

- They are nonlinear. You can't expect everyone to use them in the same way, nor in the same order. Web and other interactive materials can work sequentially if you want them to (as in a step-through animation), but you must design the experience so you encourage users to approach the material this way.

Formats: Web/Interactive

Types of Web/Interactive Media

It's best to develop Web or other interactive components of your educational outreach project for flexible use. As a video producer, you may be inclined to organize these materials according to the structure of your video program, but remember that an educational audience may not use them in this manner.

It may be helpful to think in terms of several different types of Web/interactive components:

Program Content Companion
Web and other interactive formats such as CD-ROMs are effective for presenting complementary content or recasting the video content in ways that a linear program can't (such as providing interactive games, songs on demand, and learning activities). A program content companion can help your viewers answer the questions your program raises in their minds. Remember, though, that since users may not necessarily see your video in conjunction with these materials, the Web/interactive components must also function as stand-alone resources. You can, however, use the content of your program as a starting place for building these components.

In addition to their use to a general audience, the elements of a content companion site can be incorporated into more formal educational structures (see Online Course, Workshop, Tutorial, or Lessons). In classrooms, they may serve as helpful curriculum supplements, especially if they can be used in a modular way.
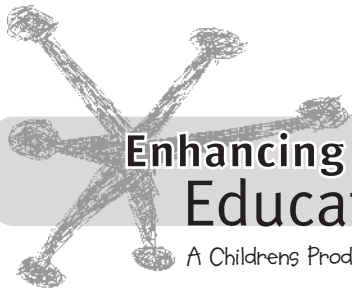
To enhance the educational impact of your video, consider including a viewer's guide as part of these materials. Because a viewer's guide can't serve as a stand-alone experience, most projects choose not to expend too of their resources on this — but it might be appropriate for a site with a small budget.

Example of a companion Web site:
• *Cyberchase* [pbskids.org/cyberchase/]

Online Course, Workshop, Tutorial, or Lessons
These Web or interactive materials are aimed at more formal educational use, in classrooms or for professional development. They may make use of the elements you develop for a video content companion site. Those using materials of this type most likely proceed through them in a linear fashion, since they're structured around a particular curriculum.

http://enhancinged.wgbh.org/kids/

Formats

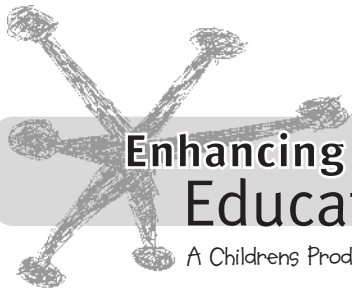# Types of Web/Interactive Media (cont'd)

Examples:
- *ZOOM* online teacher tools [pbskids.org/zoom/too/scitraining/index.html]
- *Cyberchase* online lesson plans [pbskids.org/cyberchase/parentsteachers]

Digital Library
Digital libraries present resources of various digital media types in a database, where users can find specific items of interest through menus of topics and subtopics or by searching for particular terms. It may be possible to create a topic-specific digital library based on the resources you've developed or acquired for your project, or you might provide these resources in formats that allow them to be incorporated into a larger digital library. For more on this, see Building a Digital Library.

Example:
- *Evolution* digital library

Formats: Web/Interactive: Types of Web/Interactive Media

Building a Digital Library

Broadcast projects readily lend themselves to digital libraries, which can extend the reach of the program into classrooms and the home. You can develop a great collection of multimedia as you produce your project, among them:
- Video clips from the final programs
- Outtakes
- Interactive activities from a companion Web site
- Photographs and other images
- Animations
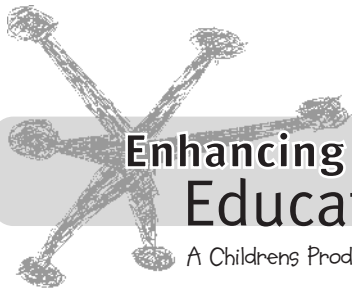- Content not included in the final program
- Sound reproductions

In addition to the multimedia materials listed above, you can enhance the educational value of your digital library resources if you include the following:
- Annotations: one-to-two-sentence descriptions of each item in the digital library
- Lesson plans that incorporate the materials in the digital library
- Background essays that explain the content of each of the materials in the library

Having this material online on the Web or on a CD-ROM or DVD-ROM makes it accessible to many on demand. You can present your digital library resources as an element of a video content companion and/or incorporate them into a larger, preexisting public television digital library.

Here are some things to consider as you think about developing a digital library:
- What kinds of materials are most useful to your target audience?
- How do your multimedia materials correlate with national and/or state educational standards and typical curricula?
- Who will select and digitally process all the materials for your library? If you are going to provide video, you need to consider digitizing, compressing, storing, and serving the video.
- Who will write any contextual materials you provide for your library resources? If you are providing a search mechanism, you will need to index your materials.
- Who will review your materials to assure content and pedagogical quality?
- Who will design and develop your digital library?
- Who will serve and maintain the site or distribute CD versions?
- How much material can they store and distribute digitally?
- What are the rights issues for distributing your material?
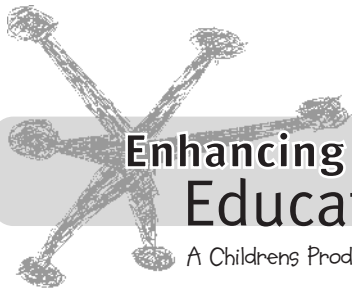- How will people find the library and use it?

          http://enhancinged.wgbh.org/kids/

Formats: Web/Interactive: Types of Web/Interactive Media

Building a Digital Library (cont'd)

The *Evolution* Library is an example of a digital library drawn from a broadcast series.

There are several nonprofit and for-profit educational digital library initiatives afoot in the public television system. You may want to consider providing your collection to one of these services. These include the National Science Digital Library, Teachers' Domain, United Streaming, and AIMS.

Formats: Web/Interactive

Web/Interactive Media Elements

Games
These features are fun, and there may be a way to "win," even though an educational agenda is often lurking within! Games are usually designed to encourage repeat-play and may offer various levels of difficulty. On PBSKids.org, sites with games and features that make use of plug-ins such as Flash and Shockwave should be balanced with features that do not rely on plug-ins.

Examples that rely on plug-ins:
   Arthur: Alien: Assembly Required
   pbskids.org/arthur/games/alien/
   Build the alien invaders that haunt Buster in his dreams.

   ZOOM: Kitchen Chemistry
   pbskids.org/zoom/kitchenchemistry/
   Perform online experiments to solve a puzzle and get a reward.

An example that does not rely on a plug-in:
   Arthur: Letters to Arthur
   pbskids.org/arthur/games/letterstoarthur/
   Arthur sends an immediate personal response to letters you "write."

Series-Specific Content
Kids who visit a program's Web site often expect to find out more about the show's cast or characters.

   ZOOM: Cast
   pbskids.org/zoom/cast/

   Arthur: Friends
   pbskids.org/arthur/friends/index.html

Stories
Stories may be designed to be read aloud either by the computer (using a plug-in such as Flash) or by the site's visitors. Long stories are difficult to read online, so it's best to keep them short. Another option is to participate in PBS Kids' Share a Story feature. With Share a Story, you provide content along with images that feature characters from your site. PBS adds these to
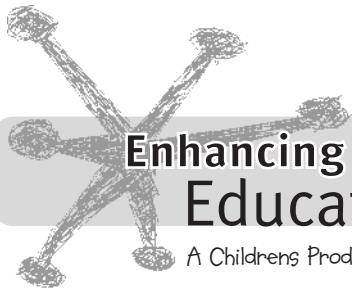
Formats: Web/Interactive

Web/Interactive Media Elements (cont'd)

an existing template. Kids are then invited to send in a similar story, which may be posted for all to see.

Between the Lions: Stories
pbskids.org/lions/stories.html
Select from about 70 stories, including "The Boy Who Cried Wolf."

PBS Kids: Share a Story
pbskids.org/shareastory/
Kids are invited to send in their own stories.

Songs
Kids love music, and presenting songs with displayed lyrics offers literacy opportunities.
A variety of media players are available (Windows Media Player, RealMedia, and QuickTime, for example). PBS Kids offers guidelines for their use in their Producers' Handbook, which is available online with a password from your PBS Kids editor.

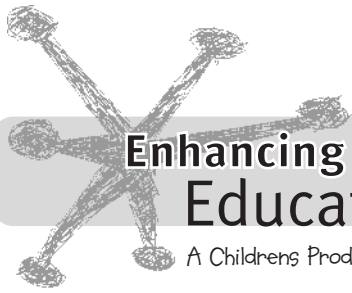*Mister Rogers' Neighborhood*: Won't You Be My Neighbor?
pbskids.org/rogers/songlist/song1.html
View lyrics and listen to the song. Requires RealMedia player.

ZOOM: ZOOMmusic
pbskids.org/zoom/music/
Listen to the *ZOOM* theme. Requires Shockwave plug-in.

http://enhancinged.wgbh.org/kids/

Formats: Web/Interactive

Web/Interactive Media Elements (cont'd)

Printables
Games, stories, certificates, and coloring pages are a few examples of the printable files your site can offer.

Between the Lions: Things to Print
pbskids.org/lions/printables/
More than 200 printable games, stories, coloring pages, etc.

Mister Rogers' Neighborhood: Coloring Pages
pbskids.org/rogers/R_house/coloring.html
Twenty-four coloring pages

Online Coloring Games
These interactive coloring games allow kids to fill in line-art images or paint "free form" with colors of their choosing. You can create your own coloring game, or take advantage of the interactive coloring applications made available through PBS.

Arthur: Art Studio
pbskids.org/arthur/games/artstudio/index.html
A Shockwave activity in which kids can paint free form

Mister Rogers' Neighborhood: King Friday
pbskids.org/rogers/coloring/king.html
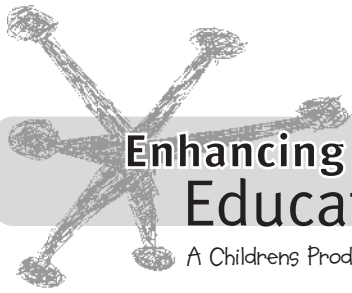An example of a coloring page that makes use of PBS's interactive coloring scripts

Offline Activities
Many sites offer suggestions, lesson plans, and ideas for activities to be done away from the computer. Some of these activities, like the ones on *ZOOM*, are directly targeted to kids. Others are targeted to adults who work with kids.

ZOOM: ZOOMdo
pbskids.org/zoom/do/
Instructions for all the activities performed on the program

     http://enhancinged.wgbh.org/kids/

Formats: Web/Interactive

Web/Interactive Media Elements (cont'd)

Clifford the Big Red Dog: Cleo's Fair Share
pbskids.org/clifford/caregivers/activities/act_101b.html#whatsmine
An example of an activity that adults can do with kids

Newsletters
Depending on your target age, sites often run newsletters for kids and/or their caregivers. Note that PBS Privacy Policies and federal law (COPPA) govern collection of personal data for newsletters, e-mail, postcard applications, etc. Newsletters are usually formatted in plain text, not HTML, and should allow for easy unsubscription.

Between the Lions: The Paw Print
pbskids.org/lions/newsletter/
This page displays this week's newsletter and offers a link to subscribe (or unsubscribe).

Postcards
Online postcards allow users to select an image, write a message that will appear on the postcard, and "send" the card to a friend. (The e-mail message includes the URL at which the receiver can view the card.) You can create your own postcard application, or take advantage of the postcard applications made available through PBS.

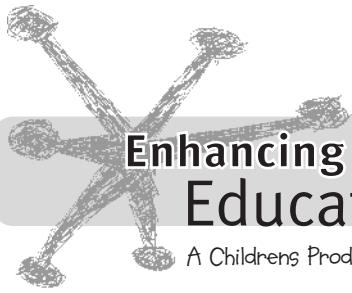*Cyberchase*: E-cards
pbskids.org/cyberchase/ecards/ecards.html
Send an electronic postcard to a friend.

E-mail
Depending on your budget for maintaining a site, you may actively solicit e-mails for posting. A database or well-organized backend is important, as the volume of e-mail received can be high. Note that PBS Privacy Policies and federal law (COPPA) govern collection of personal data for e-mail. This may require someone on your staff to delete from the messages last names and other information that could identify a child and/or his or her whereabouts.

Discussion Areas
Because it requires live monitoring, chat is extremely expensive to run. Instead of chat, PBS Kids sites tend to have areas where mail is selectively reviewed and posted as part of a "discussion," often organized by theme. At one end of the discussion spectrum is *ZOOM*, which receives an

Formats: Web/Interactive

Web/Interactive Media Elements (cont'd)

average of 20,000 e-mails a week (and more than four million since launch). A portion of this content is reviewed and published each week.

ZOOM: WhatZup
pbskids.org/zoom/whatzup/
An example of a monitored discussion area that is updated once a week

Surveys/Polls
An online poll allows kids to voice their opinions about a specific topic and see how other kids feel about the same topic. PBS offers polling scripts that your developer can modify for your site.

Arthur: Sugar Bowl Poll
pbskids.org/arthur/games/sugarbowlpoll/index.html
This poll for kids asks a new question each week.
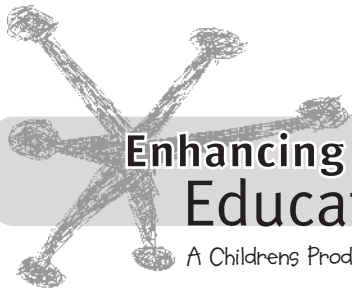
Content for Adults
Kids' Web sites offer content for adults. Content can include TV listings, episode descriptions, series curriculum, offline activities, technical help, lesson plans (often promoted from PBS TeacherSource), and behind-the-scenes information about the series. There may also be content offered in languages other than English and PDF downloads of print outreach components.

Cyberchase: Parents and Teachers
pbskids.org/cyberchase/parentsteachers

Help from PBS Kids
PBS Kids offers a variety of templates and a handbook that contains advice and rules for sites they serve. These rules cover everything from alt-tags to commercial messages and bridge pages to logo placement. PBS encourages producers to support satellite sites such as PBS Parents, which is served by a database that includes information about each site's activities as well as local stations that may use simple toolkits to promote and extend TV series on their own sites. Sites are also expected to carry localization opportunities for co-branding with local stations.
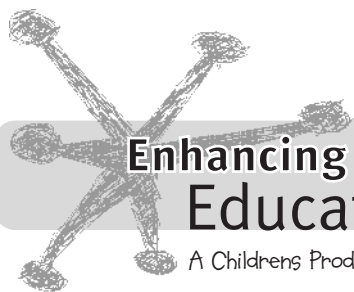
Formats: Web/Interactive

Writing for Children's Web Sites

Here are some tips to keep in mind when writing content for children's Web sites:

- Keep sentences short, and limit each sentence to one thought.

- Paragraphs should also be short and limited to one concept or idea.

- Verify that the text is written to the site's target age group.

- If you use a difficult word, explain what it means in the text or include it in such a way that the reader will understand its meaning by the context.

- Avoid scrolling pages. Younger kids, especially those under 7, have a difficult time keeping their places on the screen as they scroll.

- Keep columns narrow. It is easier for a child to read text if there aren't too many words on a line. For the youngest readers, about five words per line is recommended.

- Connect images to the text as much as possible. For example, by adding images such as arrows to on-screen selections, you'll make it clear to your young audience what those selections do.

- Use larger type sizes for sites designed for beginning readers.

- Readers often scan text on a Web page, so it can be helpful to highlight keywords within the text.
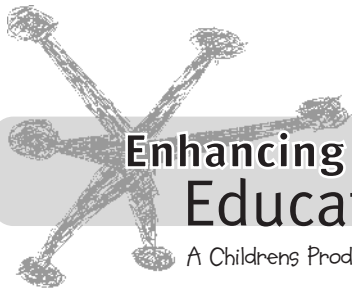
Formats: Web/Interactive

Web Production & Distribution

Here is a step-by-step process you can replicate for developing a Web site with your own production team or in collaboration with an outside production team. Some Web development shops use a very linear approach — develop content, pass it on to a graphic designer, then pass the files on to a Web developer (programmer). You'll develop the most effective and well-integrated Web site, however, if the key players from all three parts of the project — editorial, design, and technical — coordinate with each other right from the beginning. This can happen whether your Web production is in house or whether you're working with an outside vendor.

If you're planning a site for PBS Kids or for another similar educational service, there is a set of guidelines and deadlines you'll need to follow. Most of what is described here fits into that process, but you should consult the latest version of that organization's requirements. You can see PBS Online's requirements in the PBS Web Production Manual.

If you're working with a vendor, your vendor should follow this or a similar procedure. You'll set one or more review milestones at each stage of the process, and you'll be serving as gatekeeper to project "stakeholders." Be sure that the bid you receive from the vendor includes all deliverables listed below that will be important for your project, clarify how much time you have for review, and how many and what types of revisions are allowed under the bid.
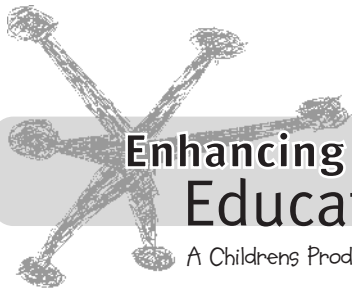
Formats: Web/Interactive: Web Production & Distribution

Proposal

Develop the Concept

Developing a concept for your Web site is part of the project proposal process. As you begin the process, you should determine the site's target audience and what you expect them to get from the site. You should also determine how the site relates to the rest of your project. Some good questions to ask yourself include the following:

- What kinds of questions will your program raise that will drive the audience to your educational site?
- Is there content from the program that you'd like to present again, but in a medium that will remain accessible beyond the broadcast window?
- Is there content that's key to the subject which you can't or don't have time to present well in the program, but which might work on the Web?
- Is there another important audience in addition to the target audience for the video program whom your content can serve?
- Will the site serve formal education (use in classrooms or professional development) or infomal education (for a general audience)?
- What level of budget will be available for the site? How can the scope and complexity of the site be tailored to match the budget?
- Who are the key project people who can work or advise on and review the content for the site? What are their areas of expertise, and where will you need to supplement their knowledge?

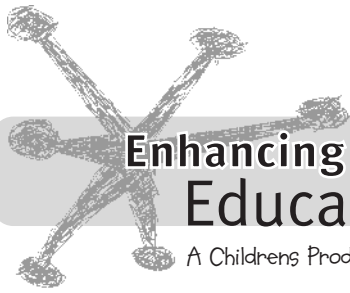*Formats: Web/Interactive: Web Production & Distribution*

Pre-Production

Coordinate with the Project Team

Once you've gotten funding for the site and have identified your Web production team, you're ready to begin pre-production. Your lead content person, lead graphic designer, and lead Web developer should all participate in this phase. These people should maintain communication with some of their counterparts on the video production team to ensure that any materials related to the video that have an impact on the Web site are compatible and available when the time to use them comes.

Some considerations to keep in mind:
- Are storyboards, transcripts, research materials, and annotated logs accessible in some way to the Web team?
- Can the Web team see treatments/rough cuts/fine cuts of the video?
- Do the appearance, talent, and location releases cover publication on the Web? If not, are reasonable options available to the Web team? Also, think about ways that you may want to use talent for the Web. For example, you may want to create an interactive feature that makes use of an animated character's voice. In such a case, try to make arrangements with the talent at the contract stage.
- Are third-party materials covered for use on the Web? Perhaps the most formidable planning issue with kids' series is the securing of third-party materials and the rights to use them. In 2004, most of the kids' series in production or development for PBS are with outside production partners and animators. If possible, contracts with these parties should require delivery of all source files that will be needed to produce the site.
- Are graphic-design decisions being made so that key elements (fonts, logos, color) are compatible with Web display?

Formats: Web/Interactive: Web Production & Distribution

Project Plan

Refine Your Concept
When your production timeline is ready to begin, assemble your production team and define your project plan. You should also begin to identify a small team of academic reviewers (these could be the same as those recruited for the video program) and potential audience focus-group reviewers.
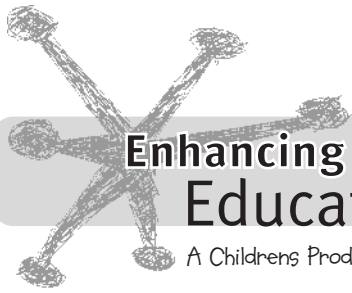
One effective approach for this phase is to write an audience and mission statement. It's helpful to keep this as short as possible and to think of this as your benchmark for making all future decisions about project content. You can also get signoff on this statement from all project "stakeholders" — PBS, others on the project team, academic reviewers, presenting stations or online services, funders (if they have editorial review), etc. This will give you some boundaries to work with in case a stakeholder asks for changes to the site that are beyond the mission. Here's an example of such a statement, written for the *Building Big* Web site.

> Our primary audience is fifth to eighth graders in informal educational settings, but we also want the site to be appealing to adult viewers of the video programs. Our mission is to build awareness of (civil) engineering as a career choice and of the scientific principles that underlie its practice by creating an engaging and informative site about building large structures. The site should stand on its own, while serving as a companion to the TV series and complementing the other outreach materials and activities.

You might next consider bringing in your entire team, together with others who are working on other aspects of the project or on other projects for a similar audience, for a brainstorm session. It's most likely been quite a while since the proposal was written, and this is your opportunity (and final chance) to rethink the content and approach. The brainstorm should have 10 to 15 participants and should be focused around four to six key questions about site content or presentation.

The goal of the brainstorm is to generate at least 30 ideas in answer to each of the questions. You should have a timekeeper, a facilitator, and a recorder. The brainstorm should follow certain rules in order to keep the session focused and productive:
- Encourage wild ideas.
- Don't make any judgments about ideas.
- Stay on the current question.
- Express an idea and then move on.

Formats: Web/Interactive: Web Production & Distribution

Project Plan (cont'd)

- Build on the ideas of others.
- Have only one conversation at a time.

After the brainstorm, the core team should reassemble to prepare the project plan. There may be new content ideas or new presentation approaches that were generated. The project plan should include the following:
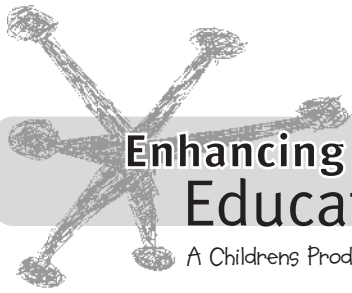- The audience and mission statement
- An outline and brief description of all the content sections of the site
- A description of the design approach you'll be taking (use lots of adjectives)
- An elaboration of the technical specifications for the site (Will there be any materials in anything other than straightforward HTML formats? Are there special database, server, or bandwidth needs? How well will this work on slower or older computers or on slower dial-up connections?)

To be hosted on its server, PBS Kids will request the information listed here, along with a timeline, approximately four months before the site premieres.

The project plan can also include a preliminary site schema, which identifies the layers of home and sub-home pages and the way these link to each other.

Example: *Enhancing Education: A Producer's Guide* site schema (PDF)

As with the mission statement, the project plan should go to site stakeholders for signoff. You may want to get reviewers to comment on the site plan, asking your academic experts to determine if you're approaching the subject fairly and comprehensively enough and if there are any content landmines you may encounter. And you may want to bring in a focus group representing your potential end users to determine how well the site covers their needs and interests.

Formats: Web/Interactive: Web Production & Distribution

Proof of Concept

Develop Storyboards & A Testable Alpha Site
You're now ready to begin production in earnest, and it's helpful to pick some representative part of the site that you can actually look at, test, and send out to reviewers. This is known as an "alpha," or prototype version.

You might develop one example of every type of section you'll have, or perhaps fully flesh out one topic. Your goals with the alpha are to see how your content actually looks and works in a Web format and to subject it to review and end-user testing.
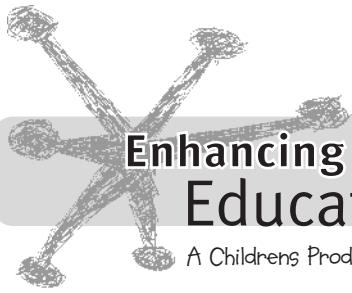
To begin, you'll need to develop some sample content. Your writers should develop scripts for the sections you've selected, which you can run by your subject-matter experts.

Since the actual design and coding work for the Web is labor-intensive, it helps to begin with storyboards that can be reviewed on paper. Storyboards indicate the general design and navigation elements that will appear on each type of screen you'll encounter, and you can step through them as if you were following links on your computer screen. Taking this a step further helps clarify your process: Your designer can lay out the text from the scripts using page-design software and add in placeholder graphic and navigation elements (like menus and link buttons) to make a set of "wireframes." You can use the wireframes to judge how the flow of copy is working, how text-heavy each page will be, and whether a user can navigate effectively from one page to the next. You can test the wireframes with representative end users, asking them to read the text and describe how they would move through the material.

When you're comfortable with the wireframes, your designer can make real graphic elements for display on the Web. He or she should discuss with the Web developer how the pages will be formatted so that the developer can produce an HTML template.

If you're producing any elements in Flash or other plug-in formats, you'll need to involve designers and developers who are skilled in working in these environments.

If you're creating a Web site that's centered on core interactive features, it may make more sense to fully develop one or more of these features rather than producing wireframes and an HTML version of a portion of the site. Because interactive features take longer and cost more to create and require more advisor review, they should be worked on before the rest of the site.
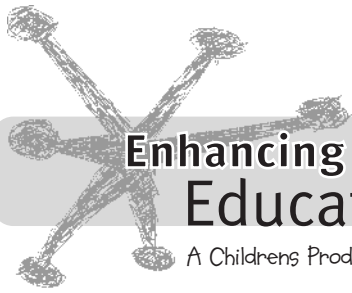
Formats: Web/Interactive: Web Production & Distribution

Proof of Concept (cont'd)

Your design and development team will put together the pieces of the alpha, which you should send out for review and testing.

You should plan to have children test your features or site. Have them test versions that are close to being complete. Unlike the testing environment with adults, it can be difficult to explain to a 4-year-old how portions of the feature will work when it's finished. If the feature is a game, you'll get more useful feedback if it doesn't "break" while being played or have selections that don't yet function.

Once you receive feedback from the target audience, use it to make improvements to your site. You will probably be very familiar with your site — you'll know its structure, how to navigate from one area to another, how to use an interactive feature, etc. User testing can reveal problem areas that you and the site's developers missed or didn't think about.
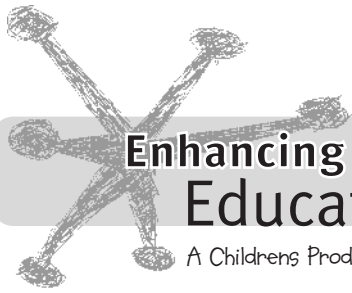
Formats: Web/Interactive: Web Production & Distribution

Beta Production

Produce the Site

Once all the feedback has come in on your alpha site, your team should meet to decide on any necessary modifications to the content, design, or technical implementation. You are now ready to produce the rest of the site. From this point on, your production plan should be fixed: New ideas or changes in direction will throw you off schedule. If anything, you may have learned from your alpha that some content ideas are too ambitious and that you may need to make cutbacks, all the time keeping in mind how best to meet your mission statement, budget, timeline, and funder requirements.

If the site is large, you may want to divide the production into several phases, bringing one part as close as possible to completion before starting on the next. Try to develop an efficient schedule for getting content reviewed, copyedited, and delivered to designers and developers in a timely manner.
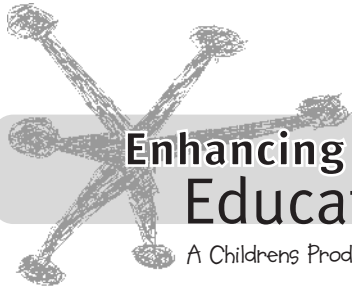
Formats: Web/Interactive: Web Production & Distribution

Beta Delivery

Final Reviews & Quality Assurance Testing
When each section of the site is complete, you will have a "beta" version of the site that is ready for final review and quality assurance testing. You may want to do this in stages, or, if the site is small enough or contains many cross-links from one section to another, all at once.

As part of your quality assurance testing, you should confirm that all copyedits have been made; that the site works in the computer operating systems, Web browser versions, and plug-in versions that you specified in your site plan; and that any special "server-side" computer scripts work on the final server environment where your site will reside.
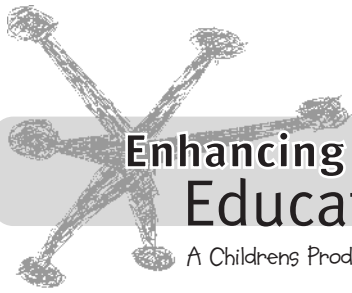
Formats: Web/Interactive: Web Production & Distribution

Final Delivery & Launch

The Site Goes Live!
After you've gotten all errors corrected, you're ready to deliver the site to its final server. The organization serving the site will specify a procedure to your Web developer. Once you've launched the site, its time to celebrate!
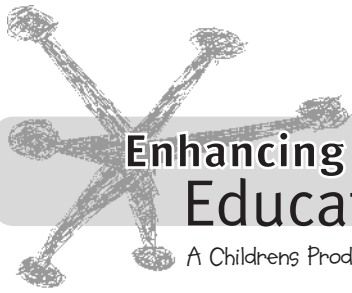
Formats: Web/Interactive: Web Production & Distribution

Maintenance

Respond to Feedback & Errors

But it's not over yet. You may be required to maintain the site for some period of time.

- If you include a user feedback link, someone should be ready to read and answer user e-mail.
- If you've included a Web board where users can post their thoughts on your topic, someone will need to monitor those boards.
- If errors are found on the site after launch, you'll need to correct them to the extent possible.
- If your site includes links to external Web sites, there's a good chance of "link rot," where the sites cease to exist or their URLs change, and you'll need to arrange to keep such links current.
- Some sites, like *ZOOM*, are vested in weekly updates. If your site is designed for ongoing changes, you'll need a team in place year round. Consideration for dealing with incoming mail, images, or other user-generated data is key in budgeting and planning.

Formats: Web/Interactive

Web Budgeting & Scheduling

Although the ultimate product of Web production is a technological presentation, the process of producing a Web site is people-intensive. So the bulk of your budget will involve staff time to conceive of and then put together the site.

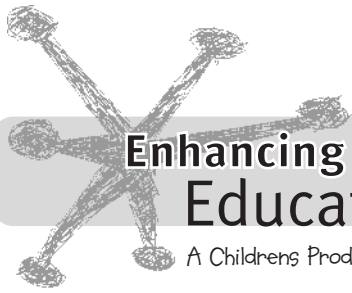You'll need to cover the following roles in your staffing plan:
• Producer (editorial guide and project manager)
• Writer(s)
• Graphic designer(s) (to help plan the site organization and develop screen layout, visual media elements, and navigation elements)
• Programmer(s) (to code the site in HTML and other Web-related formats)
• Content coordinators (to find and track assets, clear rights, and handle assorted "paperwork")
• Specialized media developers (if your plan includes rich media such as video, audio, VR panoramas, etc.)
• Subject-matter experts, advisors, and reviewers

Timing of your production cycle with respect to the rest of the project is crucial. If your site depends on information from other aspects of the project, you'll burn staff time if you begin too early. On the other hand, if your goal is to launch the site as a broadcast companion, you'll need to start early enough to meet the deadline. Launching an educational Web site prior to the broadcast of a program can help build the program's audience.

While there's no hard and fast rule for how long a production takes, it's helpful to consider the scope of the Web formats you've selected.

The following directions will minimize actual production time:
• Use interactive features that make use of straightforward HTML coding.
• Create a small number of formats and templates and reuse them throughout the site.
• Use focused, limited content.
• Use research (and when possible, Web-savvy staff) from other aspects of the project.
• Resist the urge to add content and features to the site once production is under way.

Formats: Web/Interactive

Web Budgeting & Scheduling (cont'd)

On the other hand, a more robust site may be ultimately more interesting or useful to your audience, thus increasing the life of your program. But adding in the following will lengthen production time and increase your budget:

- Wider range of formats and templates, specialized for each element of the site
- A larger set of features
- Use of rich media, such as video, audio, Flash, and Shockwave
- New features or major alterations to your plan mid-production

Don't reject a more robust site simply because it is more expensive. You may experience a greater return on your investment by increasing the value of the education component.

Budgeting a Web site is more of an art than a science; it can be difficult even for seasoned Web producers, designers, and developers to estimate the time they will need to complete a large-scale project. Therefore, be prepared to make adjustments to the site's content and features to keep your budget on track.

http://enhancinged.wgbh.org/kids/