

Attack of the

PODPEOPLE



What is a podcast?

A *podcast* is just a way of publishing audio files on the internet. What makes it a podcast is that users don't have to check your website for new episodes. They can subscribe (via an RSS feed) and receive new episodes automatically. Wikipedia has a great article on podcasts. A *video podcast*, or *vodcast*, is a podcast that uses video. An *enhanced podcast* is an audio podcast that has pictures associated with it, like a slideshow. Unlike the radio, a podcast is on-demand, can be played and replayed anytime. There is a huge variety of topics that you can listen to.

Three basic ways to use podcasts in the classroom:

1. Have your students listen to them

There are tons of content-rich podcasts your kids can listen to to enhance your curriculum.

2. You can listen to them

You can't always travel to a conference, but you can find out about the latest science, technology, or pedagogy while you're on the treadmill - professional development on a shoestring!

3. Make your own

You can use podcasts to give review sessions, and your kids can create podcasts to enhance understanding of material.

Listening to podcasts



Stuff to think about:

- You can enhance your own professional development by listening to science news or lectures. Many universities offer their lectures in podcast format, and there are podcasts on teaching as well.
- There is podcast content that is labeled "explicit." Exercise good management in the sites that you send students to.

Stephanie's Favorites:

- WNYC Radiolab: Smart, beautifully produced 1-hour shows about
 - science
- NOVA Science NOW: Smart 5 minute science candy
- Krulwich on Science: Fun and quick little gems about science
- Point of Inquiry: Intellectual commentary on science, religion, and human values, from the Center for Inquiry. Provocative and thoughtful listening.

My podcasts are at <http://www.drsteph.net/podcasts>

- SmallTalk – Nanotechnology
- Science Teaching Tips – Tips for science teachers

Some specialized education podcasts:

- Physics for Future Presidents: Richard Muller's excellent lectures from LBL
- Podcast For Teachers: Education technology podcast
- Kidcast: Podcasting in the K-12 classroom

Some of the (many) science news shows:

- The Naked Scientists (BBC)
- Slacker Astronomy (Independent)
- Berkeley Groks (Independent/UC Berkeley)
- Scientific American
- Science Update (AAAS Science Magazine)
- New Scientist
- Nature Podcast (Nature Magazine)

Podcast directories (for finding podcasts)

iTunes music store (access through iTunes software)

<http://www.podcastalley.com/>

<http://www.podcastingnews.com>

<http://www.podcastbunker.com/>

<http://www.odeo.com>

<http://www.podomatic.com>

<http://www.podshow.com>

The finer points of listening to podcasts

You may find podcasts listed on sites like Odeo, Podomatic, Podshow, or many other hosting sites and listen directly on the web, or download and subscribe through software like iTunes.

You can subscribe several ways:

1. Through iTunes store. Click on “podcasts” in the left column of iTunes. Click “podcast directory” on lower right hand corner. You can then “browse” or “power search” (upper right hand corner) or look through their featured podcasts.
2. Drag their RSS icon into iTunes. If you find a podcast somewhere other than iTunes, most pages have an orange RSS icon on their page. You can just drag that icon into the podcast window in iTunes and it will subscribe you.
3. Type in the URL. In the “Advanced” tab in iTunes menu bar, choose “subscribe to podcast.” Put in the URL for the RSS feed for that particular podcast.
4. Click on a “subscribe” link on their website. Many podcasts will have a “subscribe via iTunes” link which you can click, and it will open up iTunes on your computer.

Make your own podcasts



Make your voice heard

Kidcast

I *highly* recommend listening to some of Dan Schmit's "Kidcast", about using and creating podcasts in the classroom. His book is in the library. <http://www.intelligenic.com/blog/>. Here is audio of Dan giving an overview of classroom podcasts:

<http://edcommunity.apple.com/ali/item.php?itemID=9973>

Stuff to think about:

- Creating a podcast is a good lesson in communication, and puts the student in the role of being a teacher. It requires kids to organize information and then present it in a meaningful way. Writing across the curriculum!
- Kids can be more motivated to create a program that could be heard across the world, rather than just an assignment for the teacher.
- Researching a topic, recording it, producing it, and playing it, all reinforce concepts for students.
- Creating a podcast does take time. Start small, and create something you think you can maintain.
- Consider divisions of labor for student created podcasts (writer, editor, post-production, etc.)
- When recording people, be sure to get permission to record them (you may create a permission form).
- Your students should use a stage name and not give out private details about themselves, since podcasts are publically available.
- You should spend more time on developing the content (80%) than on production (20%). Good content makes up for poor production, but not vice versa. And plan your podcast well. Good audio doesn't just happen, it's organized in advance.
- Think about content that lends itself well to audio, such as music, personal stories, drama, history, and other narratives.
- Don't podcast for the sake of podcasting – see how it fits into your curriculum.

Some ideas for your podcasts

- Create test review podcasts – students can listen on their own time, and replay parts they didn't get. And you sound just as enthusiastic the 70th time as the 1st.
- Students can interview scientists to learn about careers
- Drama. Create a skit to perform on podcast.
- Discuss impact of science on society, or how history of science has shaped human history
- Explore digital audio technology – acoustics, sound compression, etc.
- Pet-casts give a chance to talk about biology, nutrition, etc.
- Collaborate with other classrooms via podcast
- Science or math in everyday life
- Students can use *phonecasting* to phone in observations or record reflections on a topic
- Submit a podcast to Where in the World – a worldwide geography quiz show – <http://www.intelligent.com/where/>
- Student daily almanac (weather predictions or other Farmer's Almanac type)
- This day in history
- Sports news show, focusing on statistics

Basic steps to make a podcast:

1. Record. You may record directly into Audacity or Garageband, or use an external recorder and import your audio. You can also record via the web on Odeo at <http://studio.odeo.com/create> but you can't edit it there.
2. Edit. Use your audio editing software to cut out anything you don't want.
3. Mix. Use your audio editing software to add music, make volume fades, etc.
4. Compress to MP3. This makes your audio file smaller. We use mono, 96 kbps at 44.1 kHz sample rate.
5. Upload your file.

a: If you're using a host like podomatic.com or podbean.com, then you need to sign up for an account. Once you have an account and have signed in to podomatic.com (for example), click on "My Podcast", then "Post an Episode". Fill in the title and description of the episode. Then click "Import", then "Browse" to find the file you just made. Click post and your episode will go online.

b: If you are not using a host, you will need to upload the MP3 to your server, and create or update your own RSS file. For information on creating RSS files, go to <http://www.apple.com/itunes/store/podcaststechspecs.html>, or have Podcast Maker make it for you, <http://www.potionfactory.com/podcastmaker/> and validate it using Feedvalidator.com.

6. List your podcast on iTunes (you only need to do that once).
 - a. Launch iTunes.
 - b. In the left navigation column, under Inside the Music Store, click on the Podcasts link to go to the Podcasts page.
 - c. In the left column of the Podcasts page, click on the Submit a Podcast link.
 - d. If you want to give people a link on your website to subscribe to your podcast via iTunes, find your podcast in the iTunes store. Right-click on the image that goes with your podcast and "copy iTunes store URL." That link will automatically open iTunes and bring people to your podcast page in iTunes.

Audio editing software:

Audacity

<http://audacity.sourceforge.net/>

Audacity manual:

<http://audacity.sourceforge.net/manual-1.2/>

Advanced Audacity tips:

<http://www.audacityguy.com/>

Garageband manual:

http://manuals.info.apple.com/en/GarageBand2_GettingStarted.pdf

Apple Garageband support page:

<http://www.apple.com/support/garageband/>

Apple Discussions: Garageband (a great place to find out how other people have solved your problems)

<http://discussions.apple.com/category.jspa?categoryID=127>

Advanced Garageband tips:

<http://thehangtime.com/gb/gbfaq2.html>

Hosting your podcast

We recommend: <http://podomatic.com>

Ours is at <http://www.scienceteachingtips.podomatic.com>.

We also liked <http://www.podbean.com/> or

<http://clickcaster.com/>

And many people use <http://www.odeo.com>,

<http://www.podshow.com>, or <http://www.wordpress.com>.

A comparison of many hosts is here:

http://www.okaytoplay.com/wiki/Podcast_Hosting

List of cheap and free podcast hosting

http://www.okaytoplay.com/wiki/Podcast_Hosting

Podsafe music directories (for finding music that is license-free, and legal to put in a podcast)

<http://www.podsafeaudio.com/>

<http://music.podshow.com/>

<http://www.garageband.com> (only some are podsafe)

What is podsafe music? <http://en.wikipedia.org/wiki/Podsafe>

Most podsafe music is licensed under the Creative Commons, which allows us to use music as long as we give attribution:

http://en.wikipedia.org/wiki/Creative_Commons

<http://creativecommons.org/>

Some other useful sites:

Search the web for sound samples:

<http://www.findsounds.com/>

And some free sound effects:

<http://www.sounddogs.com/>

Education Podcast Network (directory of educator podcasts):

<http://www.epnweb.org>

Podscope -- Search within audio content on the web for certain content (an audio search engine):

<http://www.podscope.com>

Phoncasting is a way for students (or anyone) to record comments via phone and get automatically put into a podcast. This can be a way for students to reflect on a topic, or record observations. Phoncasts are done for free at

<http://gabcast.com/> and <http://www.gcast.com>