

# Podcasting 101

Podcasting in brief, is sharing audio and/or video files on the Internet that can be downloaded either manually or automatically by subscription. The files are coded in a special way. If you subscribe to a podcast, each time it changes, you get a new file downloaded to your computer. The coding is called RSS (*Really Simple Syndication*).

Podcasts offer many educational benefits. Teachers can create podcasts to allow for an extension of the classroom at home or “on the road”. Students are able to create a product to share with a potentially world-wide audience. The process of putting together the podcast can also be an extremely valuable and a cross-curricular experience.

## Required Tools and Recommended Software:

**1.) Audacity** or other application to record the Podcast. Audacity is free and it works for Windows and Mac users. Audacity offers a solid compliment of editing features and converts files to the MP3 format audio for distributing your podcast. If you have a Mac computer Garage Band is another good software application.

To save recordings in MP3 format, you also need a copy of the **LAME MP3 encoder** which is available through a variety of download sources from the Audacity website.

**2.) Microphone:** You can use an inexpensive microphone to begin but later on you might want to invest in a better one if you plan to do more podcasting. ***A USB microphone with headphones attached is a great choice.***

**3.) Headphones:** Headphones are important because you need to monitor the levels of your recording but you don't want to have the sound coming from a set of speakers being recorded by the microphone. Ideally, using headphones that cover your ears will do the best job of isolating sound in your recording from other audio distractions.

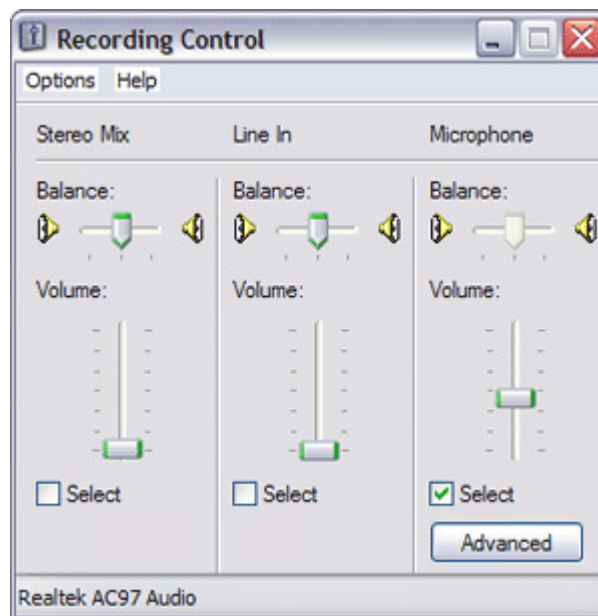
## Microphone/Headphone Set-up

There are a few steps required in setting up to record a podcast.

Connect the microphone to the microphone-in connection on your PC.

Connect your headphones to the stereo line out or headphone jack. This is often the same jack. If you're using a USB microphone/headset combination, you will of course connect via the USB port.

Make sure the **microphone is turned on**. Go to **Start>Control Panel>Sounds and Audio Devices**. Adjust the **System Volume** if necessary. **Click the Audio tab**. In the area called **Sound Recording**, click **volume**. Make sure the **Select box** under the **Microphone column is checked** and the **volume is above zero** or you won't be recording anything. Leave the Recording Control open so you can make adjustments during the recording process.



**NOTE:** The above options may look slightly different, depending upon the operating system of your computer and the sound card installed, etc.

## Download and Install Audacity

Download **BOTH** the Audacity Program and the LAME MP3 decoder from the audacity website. Save to the DeskTop of your computer and double-click to install. Install Audacity first.

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

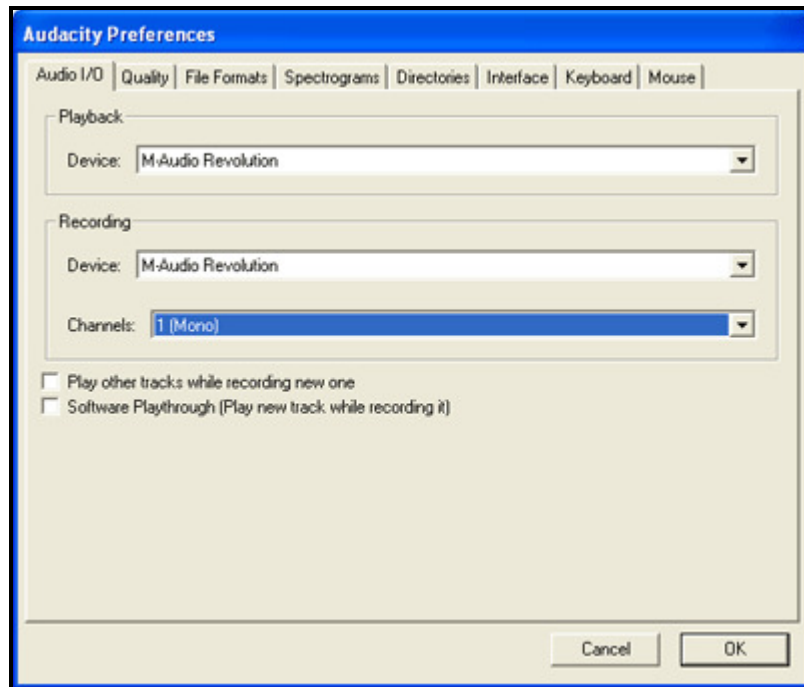


- [LAME MP3 encoder](#) - Allows Audacity to export MP3 files.

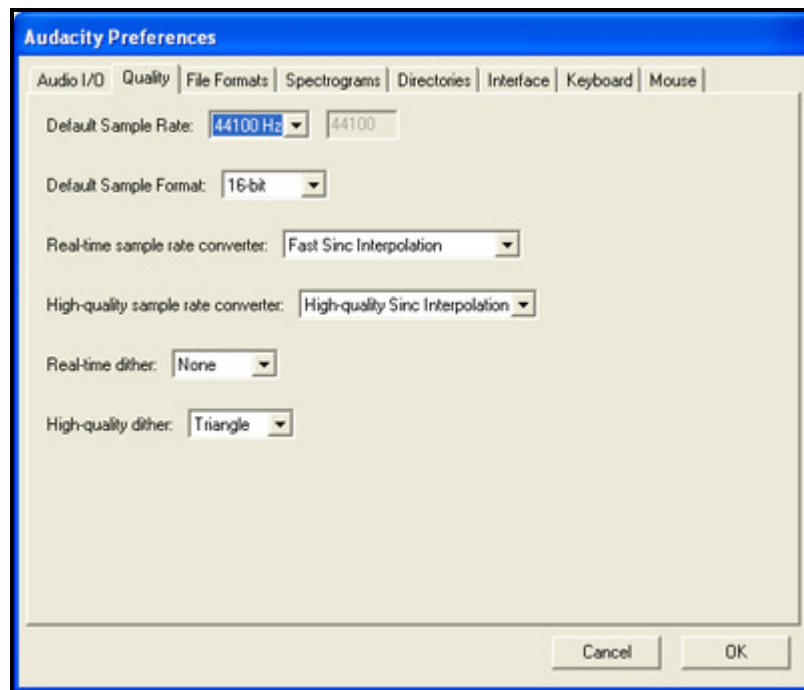
## Download and Record the Podcast using Audacity

**Open Audacity.** Open preferences by clicking on **Edit> Preferences.**

On the **Audio I/O tab**, verify your sound card is selected as the device for both playback and recording. In the **channels dropdown box** under **Recording** choose **1 (Mono)**. Unless you've got two microphones stereo simply doubles the same track, making the file size bigger.



From the **Quality tab** choose **44,100 Hz** as the Default Sample Rate and **16-bit** as the Default Sample Format.



The **File Formats tab** controls the output formats for your audio. To avoid accidentally overwriting your audio files, **select make a copy of the file before editing**. Choose **WAV (Microsoft 16 bit PCM)** as the **Uncompressed Export Format**, leave the OGG Export Setup untouched.

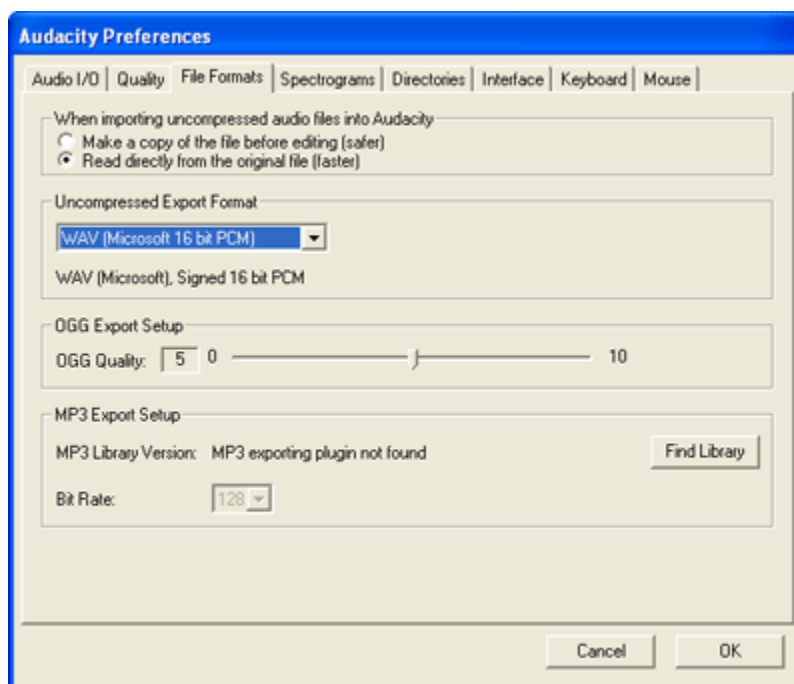
This tab also allows you to set up Audacity so the program can export in a MP3 format. Audacity recommends **Lame**, a **free MP3 encoder** for this function.

## Configuring Audacity and LAME MP3

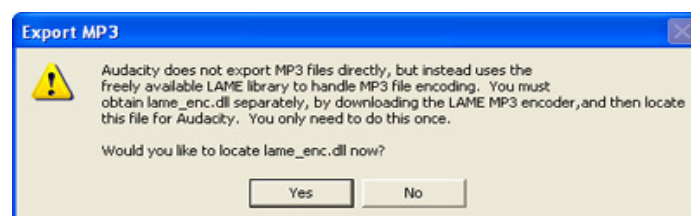
Adding support for LAME MP3 encoding in Audacity is reasonably simple, but requires a manual installation of the codec and a few steps to connect the audio editor to the codec. Adding LAME to Audacity allows you to save your podcast as an MP3 file instead of uncompressed WAV format audio.

To add LAME support to Audacity first download the latest stable version of the LAME codec and unzip the files to a folder on your hard drive. For simplicity, put the Lame files in a folder like C:\LAME makes them easy to find.

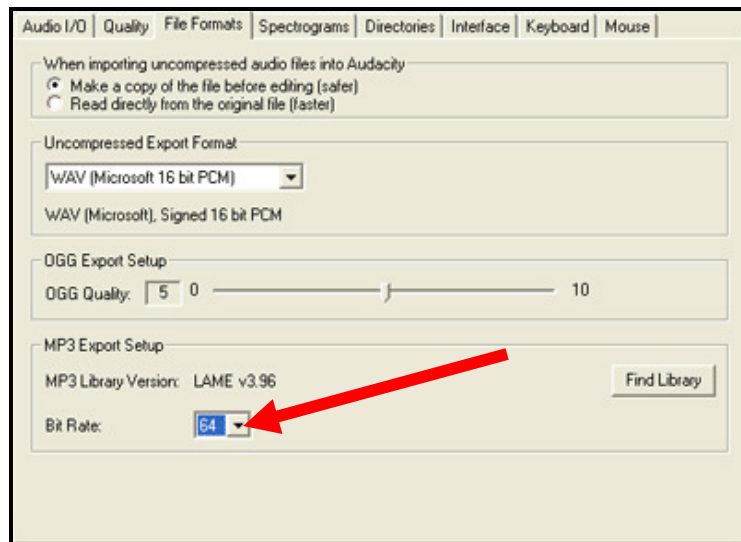
Open the Audacity preferences from the menu by browsing to Edit> Preferences. On the file formats tab click the Find Library button.



Click yes to locate the lame\_enc.dll file and browse to the location where you extracted LAME. **You will only need to do this once.**



With the LAME encoder linked to Audacity you can configure which bit rate to use for encoding MP3 files. Change the Bit Rate to **64** for the MP3 Export, if necessary.

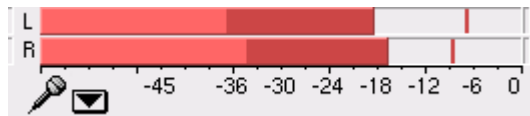
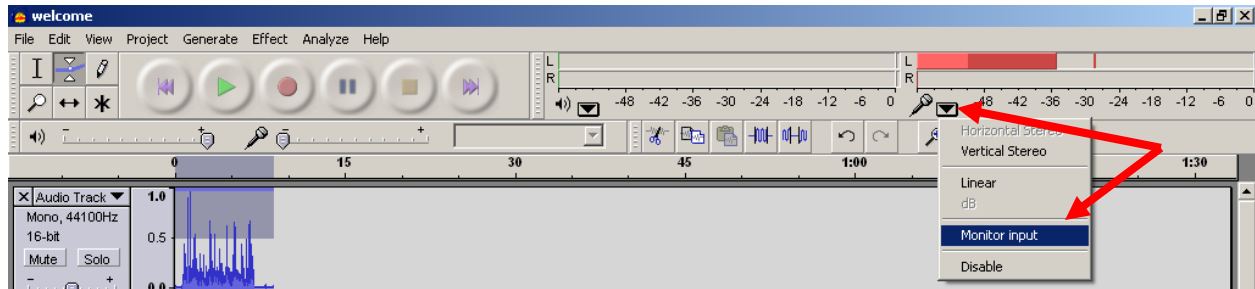


**Close the Preferences Dialog Box** by clicking **OK**.

## Checking the Sound Level Before Recording

Open Audacity, make sure your headset/microphone is already plugged in.

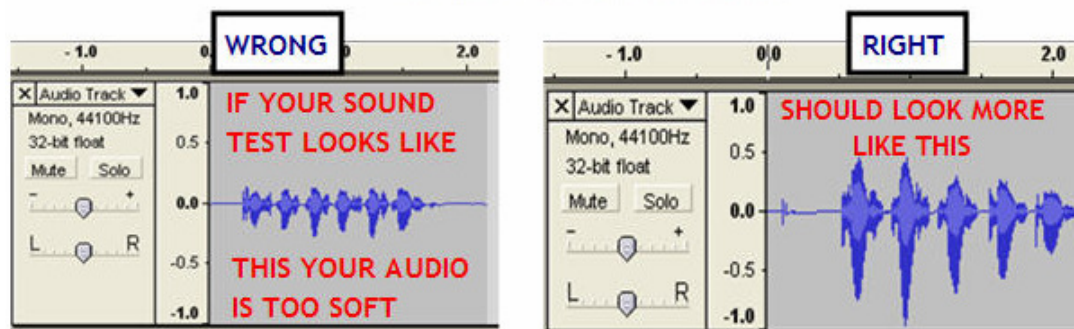
In the **main program window** verify **Microphone** is selected as the recording input option on the Audacity Mixer Toolbar. **Click** on the **microphone icon** on the **Audacity Meter Toolbar** to **turn on monitoring**.



The **red level indicator will move slightly** as it picks up room noise, even without choosing the Record button. **Talk into the microphone and make adjustments to the volume using the Mixer Toolbar**, until you get a level that bounces close to the top of the right edge without ever turning the far right solid red (which indicates you are clipping the audio). Press **record** and say a few words repeatedly to test the volume. Ideally for podcasting, you want your audio to fluctuate between +0.5 and -0.5. If it is a lot less than +0.5, you have either spoken too softly or your microphone volume needs to be increased.

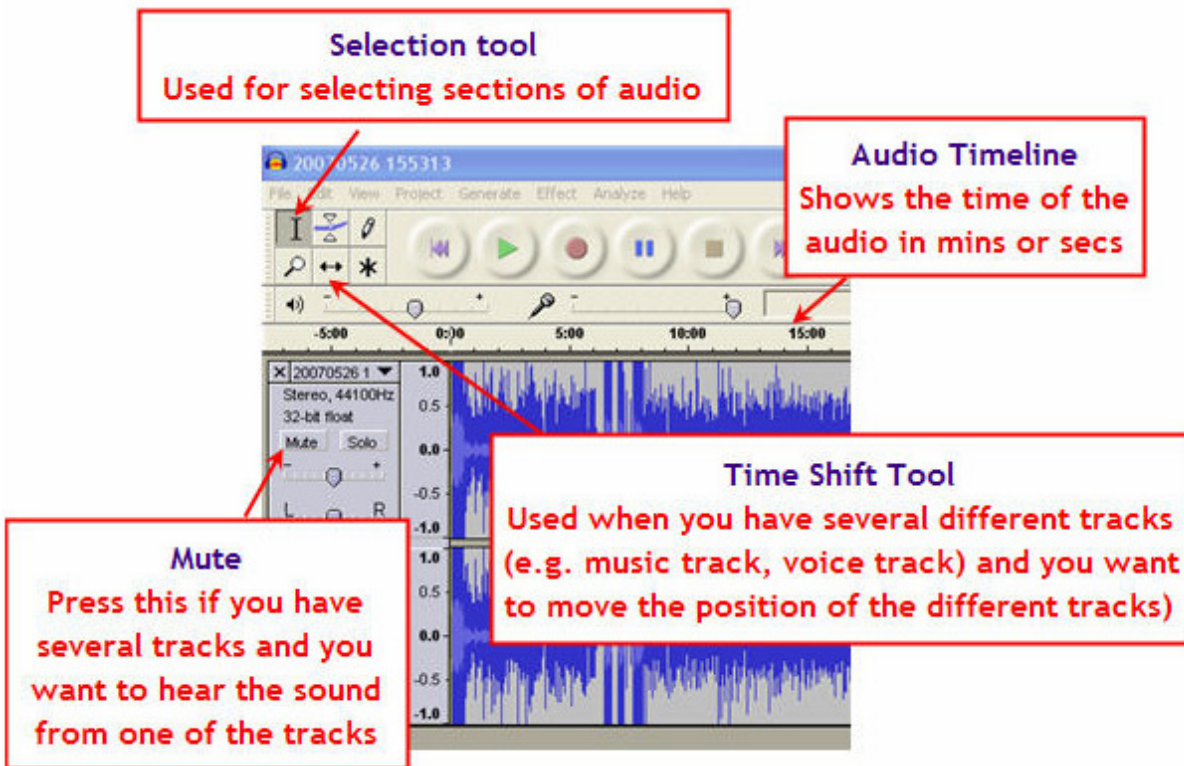
Most people when they first record with Audacity tend to talk **too softly**. Remember to talk **reasonably loud!**

### EXAMPLE OF A SOUND TEST





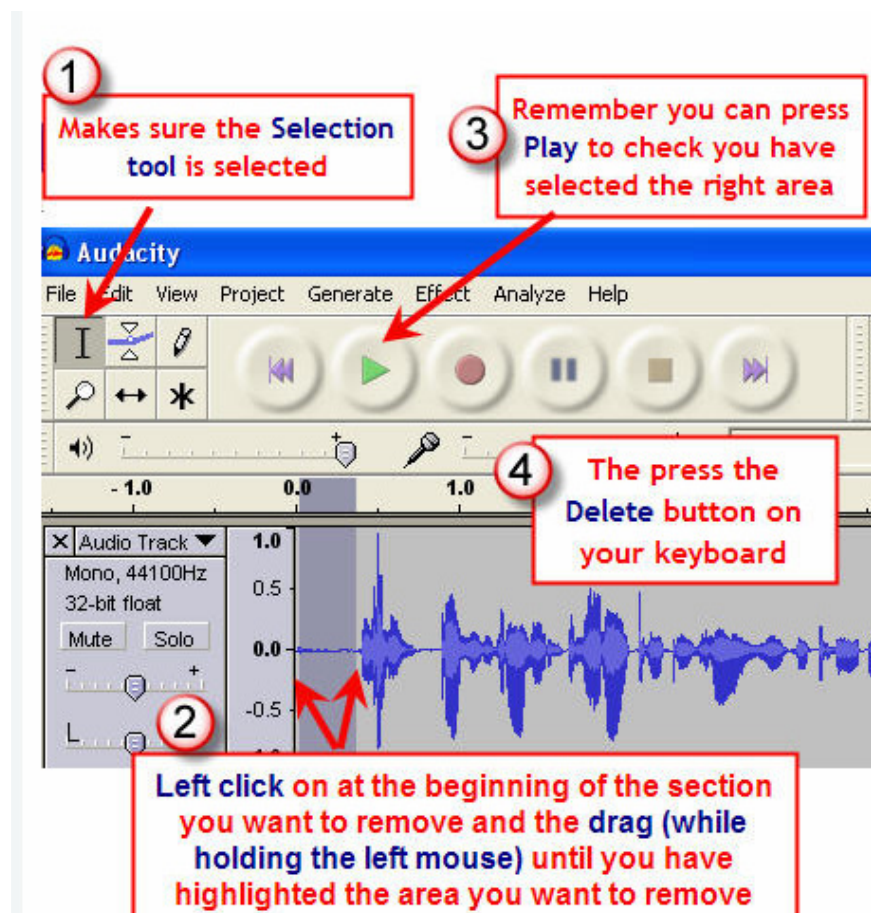
## The Audacity Toolbar





## Using the Audacity Tools for Editing

Once you have set your recording volume correctly, you are ready to record your audio. Press the record button. Don't worry if you make mistakes. You can either start over or you can highlight the bad part and press the delete button on the keyboard. You have to STOP the recording before you can use the selection tool to delete part of the recording.



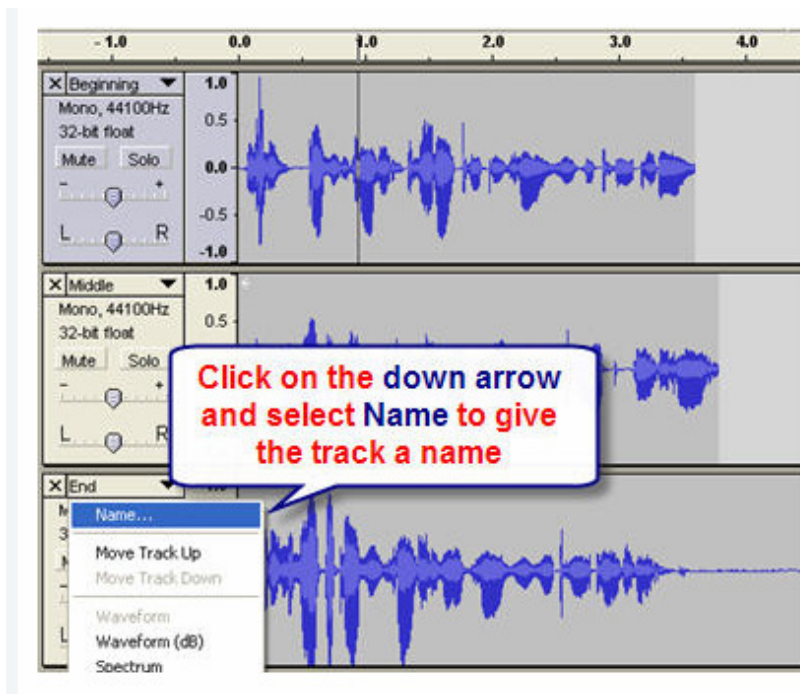
## Deleting a Track

If you want to delete the audio track completely, press the X at the top left corner of the track.



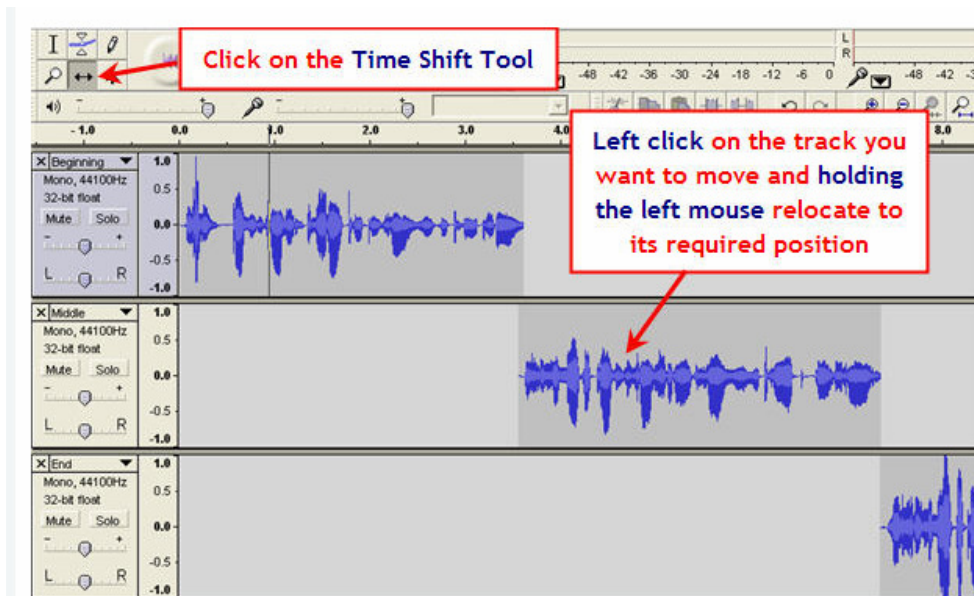
## Recording Multiple Tracks

You can also record multiple tracks but you should name each track.



## Moving the Position of Tracks

You can move the track's position by using the Time Shift tool. This will allow you to specify **when** each track plays.



## Saving Your Project While You Work

While you work on your project, make sure you save it as a project. This will save it as an editable Audacity project file. You can then open it back up and re-edit at a later time. And, regularly, keep saving as you work.

## Adding Music or Recorded Audio from Another Source

You can add music files or other recorded audio to your project. You are only allowed to use copyright free music or adhere to the **Educational Fair Use Policies**.

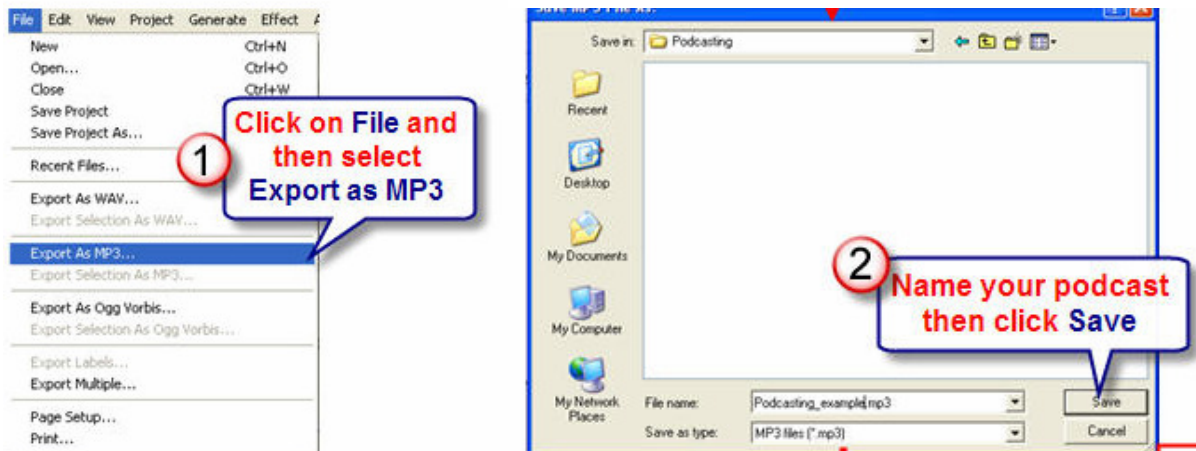
**1** Select Project then Import Audio. Locate your Audio and then click on open.

You can also highlight the section and Fade In or Fade Out

You can change the order of the tracks by clicking on drop down arrow and selecting Move Track Up or Move Track down.

## Saving Your Podcast as an MP3 File

When you are finished and satisfied with your project, EXPORT it as an mp3 file. You should use mp3 formatting for podcasting as it reduces the file size of the audio without losing quality. And, mp3 files will play in most personal audio players.



## Edit the ID3 tags for the mp3 file.

Add a **title**. **Artist** is your **name**. **Album** is the **collection or category**. You can choose to add the track and year. Change the **Genre** to **Speech**. Click **OK**.

## Posting the Podcast on the Web

This can be done by simply creating a link on your website or by creating an RSS feed so that users can subscribe to your podcasts and get new updates automatically.

You can choose to post your podcast directly on the page of any website, such as your Teacher Website. You can also publish your podcast on the Teacher Web server. (see separate handout)

## Subscribing to Podcasts

The most common podcatchers are iTunes and Juice. A podcatcher is a specialized piece of software that is used for subscribing to a podcasts's site RSS feed (Really Simple Syndication). It is a personal preference on the podcatcher you decide to use. Subscribing to a podcast site means that instead of having to visit sites over and over every day to check for new podcasts and then manually downloading them, you can get them automatically. Every time a new podcast is published on the site, it is downloaded to your computer when you open your PodCatcher software (iTunes or Juice). Most people use podcatchers to facilitate the automatic downloading of podcast RSS feeds onto their iPods or MP3 players.

## How to Use iTunes

Download and install iTunes from the Apple iTunes website.

Locate a podcast site you want to subscribe to.

Locate the RSS feed. With podomatic podcasts you will need to click on the RSS feed to locate the feed URL.

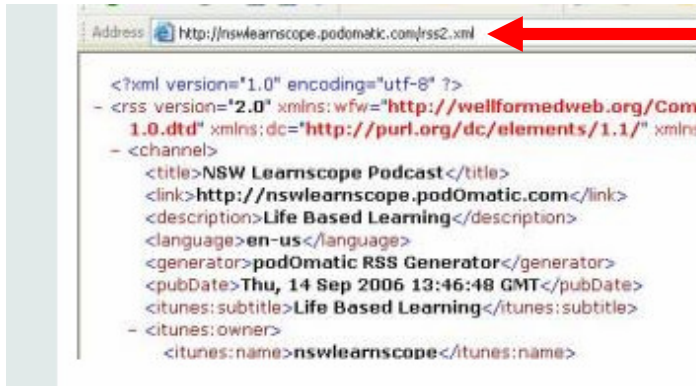


On some site, you will see an iTunes icon. If you click this graphic, it will automatically subscribe you to the RSS feed from that page.



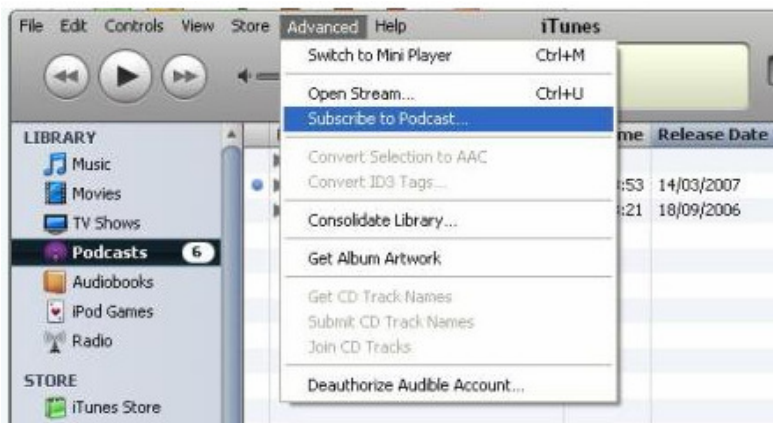


The RSS feed will open another page. You can ignore the text on the page. You just need to copy and paste the feed URL to iTunes.



Open iTunes and click on **Podcast** under library.

Go to **Advanced** > **Subscribe to Podcast**. Past the feed address in the **Subscribe to Podcast** field.



You will now automatically receive all new podcasts from this site as they are added.

## **Podcast Resources**

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

Lame: <http://www-users.york.ac.uk/~raa110/audacity/lame.html>

iTunes©: <http://www.apple.com/itunes/weekly/>

Juice©: <http://juicereceiver.sourceforge.net/>

## **Top Podcast Sites**

Learning In Hand: <http://www.learninginhand.com/podcasting/index.html>

The Education Podcast Directory: <http://epnweb.org/>

Podcasting News: [http://www.podcastingnews.com/forum/link\\_6.htm](http://www.podcastingnews.com/forum/link_6.htm)

Podcast Pickle: <http://www.podcastpickle.com/>

Podcast Awards: <http://www.podcastawards.com/>

Top Ten Education Sites:

[http://www.idiotvox.com/Podcasts\\_About\\_Education\\_19.html](http://www.idiotvox.com/Podcasts_About_Education_19.html)

Grammar Girl: <http://grammar.qdnow.com>

Podcasts for Schools: <http://recap.ltd.uk/podcasting/index.php>

## Podcast Tips

1. **Have something to say.** You can certainly just ramble for a half-hour, but unless you have a unique voice (or are really funny) people won't come back.
2. **Be prepared.** Make detailed notes, and, if you're interviewing someone, prepare questions in advance. However, don't let notes or questions keep you from diverging if you find something better to say.
3. **Be short and simple.** Too many podcasts try and fill an hour with whatever it takes to fill that time. You will be much more likely to get listeners to try out your podcasts if they are short. This does not mean that one-hour podcasts won't work; but you may want to have occasional shorter podcasts - say 20 to 30 minutes - to attract listeners who might be turned off by the idea of devoting one hour of their lives to an unknown program. If listeners like the shortcasts, then they'll stick around for the longcasts.
4. **Be clear.** Learn how to record, edit, and produce your podcast. If you're interviewing someone, don't interrupt. Learn when to talk and when to let the guest speak. You can edit later.
5. **Be yourself.** Unless you're a professional journalist or radio broadcaster, you won't make people think you are. Don't try using that "radio voice", and don't try to talk about things you don't know about. Do talk about what turns you on.
6. **Be unique.** The best podcasts are the ones that are unique or original. Don't copy in style or content. Podcasting, like writing, is creative.
7. **Don't stick in music just to fill time, or to punctuate your show.** If you have music in the show, use it as music, not filler. Choose good music. (Be aware of the copyright implications of using commercial music. In short, you can't.) Magnatune allows you use any of their music for free in non-commercial podcasts. Their FAQ says, "If your podcast is non-commercial (most are) then you can use Magnatune's music for free in your podcasts. Choose the license type "non-commercial" and agree to the terms of the Creative Commons license."

## Educational Uses for Podcasting

- distance learning
- facilitate self-paced learning
- re-mediation of slower learners
- allow faculty to offer advanced and or highly motivated learners extra content
- helping students with reading and/or other disabilities
- multi-lingual education
- provide the ability for educators to feature guest speakers from remote locations
- allow guest speakers the ability to present once to many sections and classes
- allow educators to escape the tedium of lecturing
- offer a richer learning environment
- class news reports
- vocabulary and spelling practice
- book reviews and library news
- collaborative podcast—many students record, respond and contribute to build a podcast
- language practice

### Tourism Guides

Develop an iTour of attractions in a city or country. The tourist downloads the podcast to his MP3 player, acquires a map of the city, travels to the start location and press the "play" button for the commentary. The information in the iTour leads the way.

### Story Telling

Hearing a story can be as entertaining as reading for children and adults alike. Audio books have been on the market for some time and there are many genres and titles available.

### Radio Shows

Podcast radio shows are hosted and presented on the Internet and cover a wide range of topics and interests. Some of the categories could include the arts, entertainment, computing and the Internet, science and nature, home and lifestyle, hobbies and recreation, news and media, society and culture and sports.

## Other Activities

Pupils identify a topic to create and publish podcasts that could benefit others, based on their own experiences. Possible examples of school-based activities, especially suited to primary school pupils, are podcast guides to:

- the school for new pupils, parents and visitors;
- a curriculum activity in the school grounds (science topic on mini-beasts/habitats);
- the local area around the school (geography topic)
- the school library and ICT resources for younger pupils.
- off-site guides become even more numerous and open-ended in range and scope.
- a range of fieldwork activities in science, history or geography.
- visits to notable places of interest, including local tourist attractions.
- profile of local amenities and facilities for pupils, residents or visitors to the area.