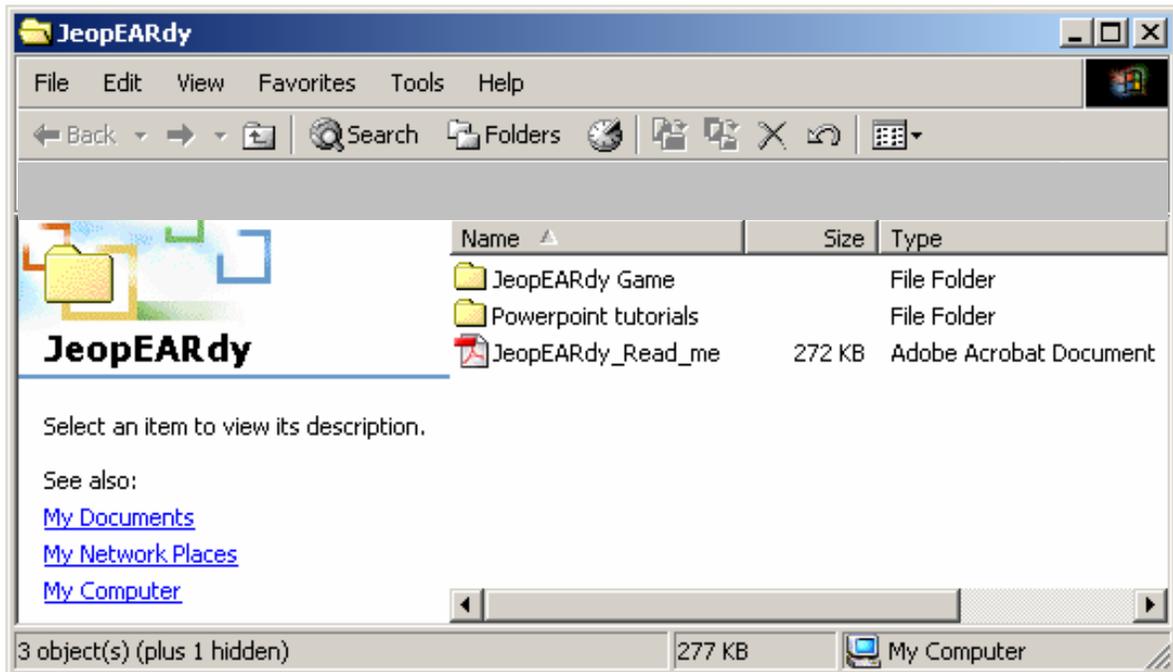




Hearing Conservation Game for Employee Training

JeopEARdy is an interactive multimedia training resource that has been developed to support effective employee education in occupational hearing conservation programs. JeopEARdy consists of a Microsoft® PowerPoint® file (accompanied by additional linked files containing sounds, videos, and other resources) that can be used as a unique interactive “game” by hearing conservationists. This resource may be used either in its basic (“ready-to-use”) form, or it can be customized to meet specific needs of the audience and instructor (by periodically updating it to remain current with policy and program changes). JeopEARdy was created by the NASA Glenn Research Center Acoustical Testing Laboratory, in collaboration with the NASA Johnson Space Center Audiology and Hearing Conservation Clinic, and is distributed for public use by hearing conservationists.

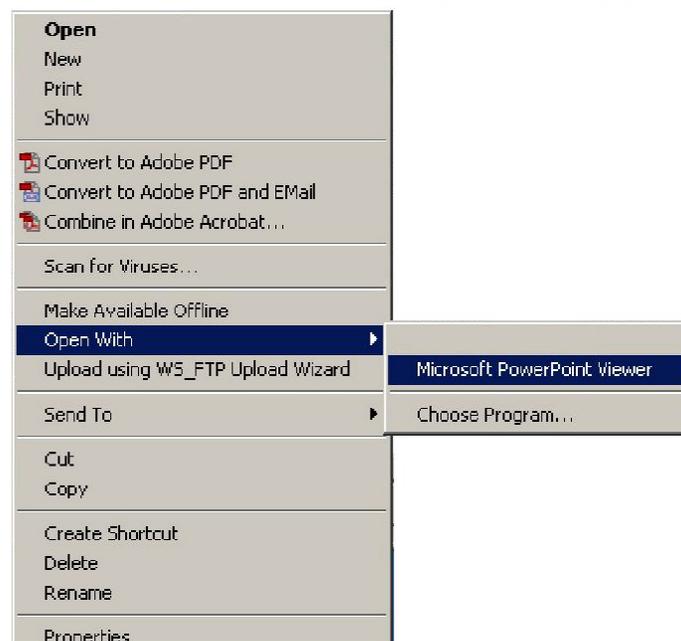
This CD contains the JeopEARdy game and a folder with some background information on PowerPoint® techniques. The file directories on the JeopEARdy CD are shown below.



If you do not have the PowerPoint® application on your computer, you can still play the JeopEARdy game using the PowerPoint® Viewer 2003 included on the CD. The PowerPoint® 2003 Viewer lets you view full-featured presentations created in PowerPoint® 97 and later versions.

To install the viewer, double click on the file named: ppviewer. The viewer will be installed onto your computer.

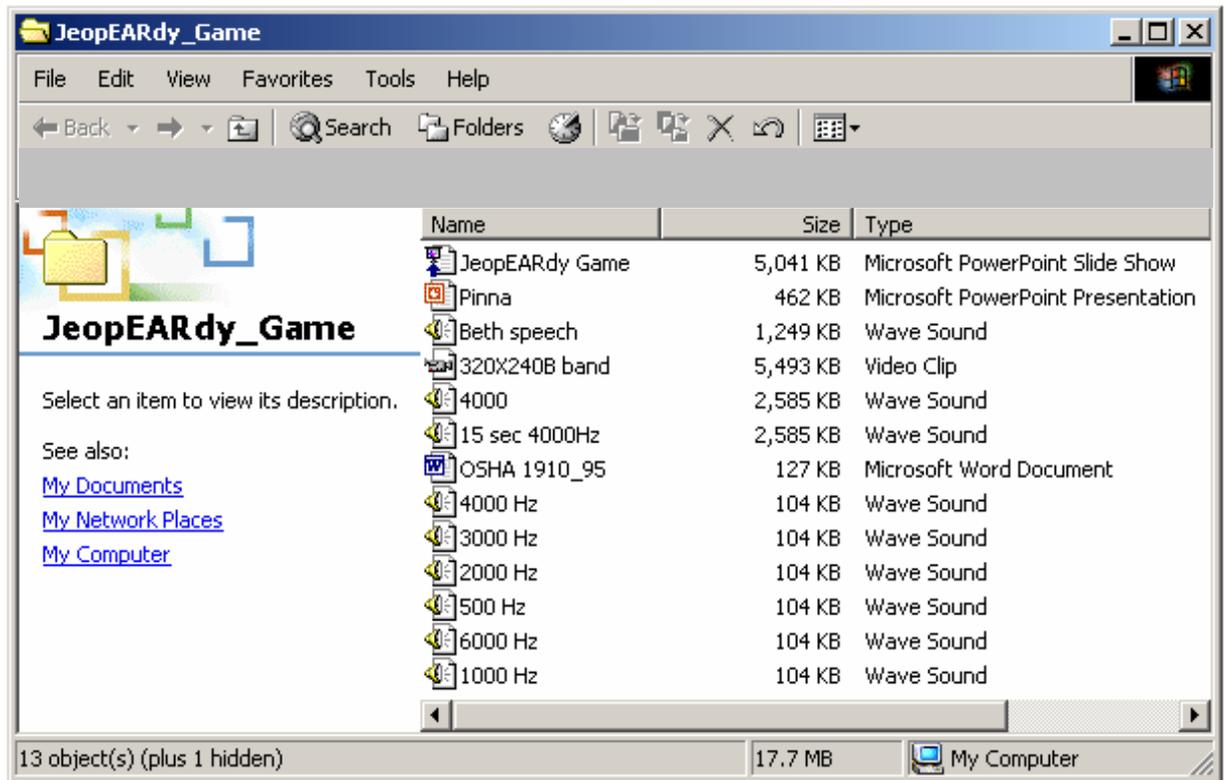
To view a PowerPoint show, right-click on the PowerPoint® file that want to view (JeopEARdy.pps) and navigate to: Open With > Microsoft PowerPoint Viewer. This will allow you to view (but not to edit) the show.



The JeopEARdy game (in the **JeopEARdy Game** folder – see directory below) may be played directly from the CD, or it may be copied (with its collection of linked/associated files) onto a computer hard drive to let users easily customize the presentation and make it more meaningful for their audiences. For example, these customizations might include substituting images of local work areas or employees, or modifying the text when a policy changes.

Double-clicking on the JeopEARdy icon will launch the PowerPoint® show.

To customize the JeopEARdy game, copy the *entire* **JeopEARdy Game** folder to your hard drive. This is necessary to maintain the links between the game and the associated files in the folder. To edit the JeopEARdy game, open PowerPoint® and navigate to File > Open > JeopEARdy.pps.



Users will find explanatory comments pertaining to specific slides in the “notes” view of the PowerPoint® files. These notes are printed below, associated to the appropriate slide’s number. The notes discuss the structure of the game as a PowerPoint® presentation; navigation between the game board, the “answer” slides, and the “question” slides; and the techniques that have been used to create the game’s animated effects.

FOR BEST RESULTS, PLEASE READ ALL OF THE NOTES BEFORE PLAYING THE GAME.

Note: JeopEARdy has been developed in Microsoft® PowerPoint® 2002 for PC operating systems. Some advanced custom animation features may not operate in older versions of PowerPoint®, but this should not affect the basic functionality of the game.

For additional copies of this JeopEARdy CD and other hearing conservation education resources please visit the NASA Glenn Research Center Acoustical Testing Laboratory website at <http://acousticaltest.grc.nasa.gov>

JeopEARdy Slide Notes

Notes listed by slide number (Recommended reading prior to using the JeopEARdy presentation)

- 1.** The look of JeopEARdy may be modified using the Slide Master view. This slide, the JeopEARdy game board (slide 2), and the last slide (69) were created from the Slide Master. The Q/A slides with the JeopEARdy watermark were created using the Title Master. To personalize the game (e.g., your company logo), make the desired changes to the Slide and Title Masters.
- 2.** With the exception of “Ear Pieces for 50,” each number is a hyperlink to another slide in the game. Click on a number to link to an “answer” slide. Use the mouse (not the arrow keys), since there are some embedded links that will not be activated properly using arrow keys. The “Ear Pieces for 50” cell has an embedded hyperlink to a PowerPoint® file: Pinna.ppt (see notes for slide 20). Click on “FINAL JeopEARdy” to play Final JeopEARdy.
- 3.** Click the mouse anywhere on the slide to advance from an “answer” slide to the corresponding “question” slide. If, for some reason, you desire to return to the game board from an “answer” slide, click on the small “home” icon  in the lower right hand corner.
- 4.** Click on the yellow JeopEARdy ear  in the lower right hand corner of the slide to return from a “question” slide to the JeopEARdy game board. To play through a category without returning to the game board, use the mouse to click elsewhere (other than on the JeopEARdy ear) on the slide to advance to the next “answer” in the category (or, when at the last Q/A set in the category, to advance to the next “answer” in the next category).
- 8.** The “10 dB” text is a hyperlink to a Microsoft® Word document (OSHA 1910_95.doc), the OSHA standard on occupational noise exposure. Click on the link to open the document (although it is easiest if you have the document open and minimized before starting to play JeopEARdy). When the document opens, Ctrl+Click on the open book icon to jump to the paragraph where the definition of STS has been highlighted. To return to the JeopEARdy game, minimize the Word® document.

This linked document illustrates the technique of linking resource materials to a PowerPoint® training presentation, if questions arise or additional information is needed during a presentation.

9. This slide has a linked audio file (Beth speech.wav) that was recorded from within PowerPoint® using the “Insert movies and sounds/record sound” pull down menu. The icon has been dragged off the slide so that it is not visible. The sound file is set to play automatically, using custom animation. It is recommended that the volume setting be adjusted to approximately 75% of maximum, so that this audio signal is clearly audible at a comfortable speaking level. The volume settings for the audio signals on this CD (slides 9, 36, 38, and 63) have been calibrated relative to one another to produce appropriate output levels.

20. This slide has an embedded hyperlink to a PowerPoint® file: Pinna.ppt, which runs automatically (using slide transitions). The next Q/A set (Ear Pieces for 50) is then launched via a hyperlink embedded in the last slide in the Pinna.ppt file, which returns to JeopEARdy.pps at the Q slide (#22). The game board also links to Pinna.ppt from the corresponding “number” cell.

This linked file illustrates the capability of linking between PowerPoint® presentations for the purpose of construction training programs that are modular in structure. Modular programs are easily updated and customized for different audiences, and the modular nature of the construction is invisible to the audience. If you use the *Pack and Go* function within PowerPoint® to compress and package your show please note that Hyperlinks between PowerPoint® shows will not be maintained.

36. The linked video is 320X240B band.AVI. This slide employs some interesting custom animation: the video enters, plays (partially), pauses, stops, and disappears. This is coordinated with the appearance of the “closed captioning” text, and then the “answer” text.

The audio track that accompanies this video clip is actually a simulation of progressive noise-induced hearing loss that has been produced by digitally filtering a selection of music. (No, it is *not* the music that the band in the video is playing!) If you listen carefully, you can hear the intelligibility of the music begin to degrade after several seconds. This hearing loss simulation is an excerpt of one of many hearing loss “meltdowns” of different musical styles that can be found on a CD, *Auditory Demonstrations II: Challenges to Speech Communication and Music Listening*. That CD, and its predecessor, *Auditory Demonstrations in Acoustics and Hearing Conservation*, were produced by the NASA Glenn Research Center Acoustical Testing Laboratory. Single copies are available free on request by visiting the NASA Glenn Research Center Acoustical Testing Laboratory website at <http://acousticaltest.grc.nasa.gov>.

38. The simulated tinnitus audio signal is a linked sound file: 15 sec 4000Hz.wav. The icon has been dragged off the slide so that it is not visible, and the animation is set up so that it plays automatically.

47. The sin wave animation is an embedded gif (animation) file.

60. The image depicts the screen of the MACSUG, the Microprocessor Audiometer Simulator User Gizmo. MACSUG is a software program for simulating and illustrating techniques and principles of manual audiometry and audiogram review. MACSUG may also be used to teach audiogram review and OSHA recordability determination for industrial hearing conservation programs, including calculation of shifts, STS metrics (with and without age corrections) and average hearing level. MACSUG has been developed by the NASA Glenn Research Center Acoustical Testing Laboratory as an educational tool for classroom use by an instructor. Hearing conservationists may also use MACSUG to practice or review their understanding of audiometric testing and audiogram review principles.

For more information, or to request a free single copy of MACSUG, please visit the NASA Glenn Research Center Acoustical Testing Laboratory website at <http://acousticaltest.grc.nasa.gov>.

63. This slide employs custom animation to present the audiometric tones in sequence. The tones are wav files named for their frequencies: 500 Hz.wav, and so on. Each of the tones has been associated with the animation of its corresponding text label (rather than being separately inserted).

66. Sorry, there is no *Final Jeopardy* theme music to accompany this slide. You (or your audience) will have to hum the tune!

Cross-reference linked files with slide number

Slide Number	Linked file(s), Included in JeopEARdy Game folder
8	OSHA 1910_95.doc
9	Beth speech.wav
10	Pinna.ppt
36	320X240B band.AVI
38	15 sec 4000Hz.wav
63	500 Hz.wav 1000 Hz.wav 2000 Hz.wav 3000 Hz.wav 4000 Hz.wav 6000 Hz.wav