

## Requirements & Tips for Using Images

We encourage you to incorporate images into your curricular write-up. In addition to photos, images may be diagrams, drawings, clipart, tables, graphs, charts, equations, animations and videos! Consider images to be all the items you want to include that are not simple strings of text.

As you use a TE template, provide the following information for each image, organized in a text box:

- **Image file:** Provide the name of the image file.
- **ADA Description:** Write a brief description of the image *as if you were describing it to a blind person*. Do not repeat information provided in the caption (a blind person can listen to that text). This text information will also appear on the TE website when a cursor hovers over the image.
- **Source/Rights:** Provide the copyright permission citation, as desired by the image owner.
- **Caption:** (optional) Provide a caption, if desired. If the image is referred to in the text, use figure or table numbers, and remember to reference it in the text, for example: (see Figure 1).

### Image 4

**Image file:** cub\_housing\_lesson04\_activity1\_image4.jpg

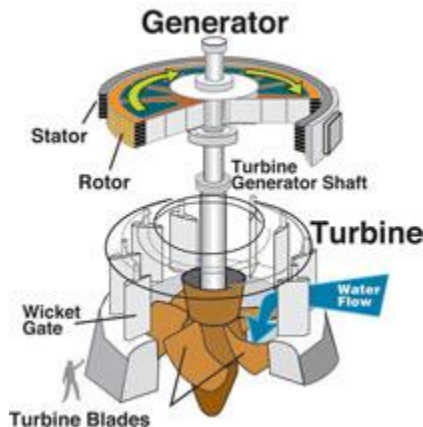
**ADA Description:** A photograph shows a girl using a hose to spray water at another girl while washing a dog in a lawn area.

**Source/Rights:** © 2004 Microsoft Corporation, One Microsoft Way, Redmond, WA 98052-6399 USA. All rights reserved.

**Caption:** An example of the law of conservation of mass: Holding your thumb over the water flowing from a hose forces the water through a smaller opening and speeds up the flow.



# examples



### Figure 1

**Image file:** cub\_dams\_lesson04\_figure2.jpg

**ADA Description:** A line drawing shows parts of a generator and turbine including turbine generator shaft, rotor, stator, generator shaft, wicket gate and turbine blades.

**Source/Rights:** © 2005 U.S. Army Corps of Engineers, Wikimedia Commons [http://commons.wikimedia.org/wiki/File:Water\\_turbine.jpg](http://commons.wikimedia.org/wiki/File:Water_turbine.jpg)

**Caption:** Figure 1. Exploded view of a water turbine and electrical generator. Note the location of entering water flow to spin the blades, the shaft connecting the turbine to the generator, and how big it is (see the outline of a man at the bottom, for scale)!

### Image 1

**Image file:** duk\_measure\_lesson01\_activity1\_image1.jpg

**ADA Description:** A photograph shows a man and a woman working together to attach a camera to a steel railing near the ocean's edge.

**Source/Rights:** © U.S. Geological Survey  
<http://soundwaves.usgs.gov/2010/07/>

**Caption:** Accurate measurements in standardized units are important in collecting imagery to measure the speed and direction of currents in the surf zone of the NC shore.



You must obtain written permission to use image files that are not your own or in the public domain, or obtain the images from a source that allows the use of its images for nonprofit purposes.

### Possible sources of images:

- ❑ **Create your own!**—Obtain written permission from the people in any classroom photographs you take (or from the parents of children). Upon request, TE can provide an example photo release form.
- ❑ **From U.S. government websites (.gov)**—Many government websites have excellent photos and diagrams as well as extensive image galleries. Be aware of exceptions to free use; look for copyright notices and/or reproduce their copyright source information for correct attribution. **Tips:** To find .gov images via a Google Images® search, type in a description of what you are seeking followed by “site:.gov”—for example: biomedical engineering **site:.gov**. Google image searches also now offer a usage rights option that helps you find images that are “labeled for reuse.” Examples sources:
  - U.S. Government Photos and Images at <https://search.usa.gov/search/images?affiliate=usagov&query=>
  - U.S. Department of Agriculture (Image Gallery) at <https://www.ars.usda.gov/oc/images/image-gallery/>
  - U.S. Geological Survey (Multimedia Gallery) at <http://gallery.usgs.gov/>
  - U.S. Dept. of Energy (Image Gallery Gateway) at <https://public.ornl.gov/site/gallery/default.cfm>
  - U.S. DOE Biological/Envr Rsch (Image Gallery Gateway) at <https://public.ornl.gov/site/gallery/default.cfm>
  - NASA Multimedia Image Gallery at <http://www.nasa.gov/multimedia/imagegallery/#.U9NVDvldUnE>
  - Reusable NASA Images at <http://serc.carleton.edu/usingdata/nasaimages/index4.html>
  - National Institutes of Health Image Bank at <https://www.nih.gov/news-events/images>
  - Public Health Image Library (PHIL) at <http://phil.cdc.gov/phil/home.asp>
  - NOAA Photo Library at <http://www.photolib.noaa.gov/>
  - NREL Image Gallery at <https://images.nrel.gov/bp/#/>
  - Library of Congress at <https://www.loc.gov/>
- ❑ **From Wikimedia Commons** <http://commons.wikimedia.org> or **Wikipedia** <http://en.wikipedia.org/>—Click on the image to view its copyright/source information. Often, owners designate their images to be available for widespread use under the GNU Free Documentation License or various Creative Commons licenses, which often means you can use it as long as you attribute the work as specified (usually the year, creator’s name and URL source). Examples:
  - <http://commons.wikimedia.org/wiki/File:Watercyclesummary.jpg> and
  - [http://en.wikipedia.org/wiki/File:EM\\_Spectrum\\_Properties\\_edit.svg](http://en.wikipedia.org/wiki/File:EM_Spectrum_Properties_edit.svg)
- ❑ **From Microsoft’s clipart collection**—for photos, illustrations and animations. Use the following text for the Source/Rights text: *2004 Microsoft Corporation, One Microsoft Way, Redmond, WA 98052-6399 USA. All rights reserved.*
- ❑ **From some stock photo and clipart websites, and some public domain photo libraries.** Always check the specific image’s “terms of use” policy or Creative Commons license to be sure. Examples:
  - <http://www.freeimages.com/>, <https://pixabay.com/en/>, <https://www.pexels.com/>, <http://www.public-domain-image.com/>, <https://www.dreamstime.com/free-photos>, <https://openclipart.org/>, <http://www.clipartfav.com/>, <http://www.cliparthut.com/>, <https://www.flickr.com/>, <http://www.clker.com/>, <http://www.freestockphotos.biz/>, <http://digitalcollections.nypl.org/>, <http://www.clipart.com/en/> [http://web.centre.edu/enviro/Photos\\_files/Photos.htm](http://web.centre.edu/enviro/Photos_files/Photos.htm)
- ❑ Do not assume that you can use images found on educational websites (.edu), but often, if asked, the owners will grant permission for nonprofit use of their images.

**Keep records for TE of image sources, ownership and permission granted correspondence.** TE can provide an example letter to request the use of copyrighted materials for you to personalize and use.

In the TE templates, indicate permission obtained by providing source/rights information in the image boxes. For images used in PowerPoint® presentations, put the source/rights information in the slide notes.

Save and provide in your TE submission all original image files (at original, high resolution) from which final images can be made for display on the TE website. Embed lower-resolution images in the Word templates to mock-up the desired size and placement.

Provide your original creation files for tables, charts or drawings so they are accessible for final editing. Use the most common formats (jpg, png, gif, pptx, etc.) so they can be manipulated by the final editors.

If you combine clipart or images into a composite graphic, indicate the sources of all items used.

If you make a table, remember to indicate the source of the data (if from one place), or refer to multiple sources that you list under the References section.

**Video clips** can be embedded so they are viewable in the website interface. This is easily done for YouTube videos (provide the URL) or by making any existing video format files into YouTube videos. YouTube supports many [video formats](#): mov, mpeg4, mp4, avi, wmv, mpegps, flv, 3gpp, webm. If small in size, video clips can also be attachments. See examples under [Introduction/Motivation](#) and [Attachments](#)

# examples

**Table 1**

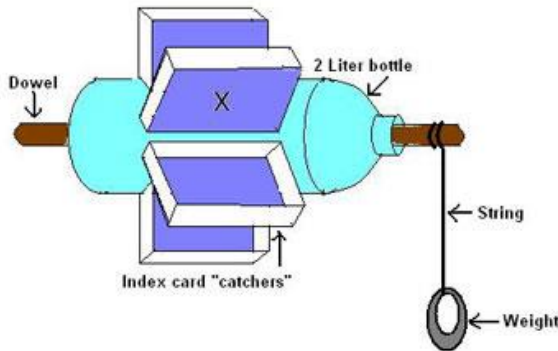
**Image file:** cub\_natdis\_lesson01\_table1.jpg

**ADA Description:** 1906 earthquake in San Francisco; 2004 tsunami in Indian Ocean, 1928 Mt. Etna volcanic eruption in Italy, 1974 hurricane in Darwin, Australia; 1931 flood of Huang He River in China; 2006 landslide in Philippines; 1999 tornado in Moore, OK.

**Source/Rights:** © 2006 Wikipedia <https://...>

**Caption:** Table 1. Examples of natural disasters in recent human history.

Year	Location	Type	Notes
1906	San Francisco, USA	Earthquake	A magnitude 7.8 earthquake that left nearly 300,000 people homeless
2004	Indian Ocean	Tsunami	The second most powerful earthquake ever recorded; killed nearly 200,000 people
1928	Mt. Etna, Italy	Volcano	The eruption destroyed the entire town of Mascali
1974	Cyclone Tracy, Darwin, Australia	Hurricane	A category 4 storm that destroyed 70% of the city of Darwin
1931	Huang He River, China	Flood	The most deadly natural disaster of the 20 <sup>th</sup> century; estimated 1 to 4 million people died.
2006	Philippines	Landslide	A mudslide on the island of Leyte was caused by heavy rains and a small earthquake
1999	Moore, Oklahoma	Tornado	An F5 tornado with maximum wind speeds of 318 mph (512 kph) severely damaged the city



**Figure 1**

**Image file:** cub\_energy2\_lesson08\_activity2\_figure1.jpg

**ADA Description:** A diagram shows construction placement of a 2-liter bottle, dowel, index card “catchers,” string and weight. One catcher is marked with an X.

**Source/Rights:** © 2005 Malinda Schaefer Zarske, College of Engineering, University of Colorado Boulder

**Caption:** Figure 1. Assembly diagram for the plastic bottle waterwheel.

**Figure 2**

**Image file:** cub\_energy2\_lesson08\_activity2\_figure2.jpg

**ADA Description:** A photograph shows a girl holding horizontally a 2-liter bottle with paper paddles taped around the middle section.

**Source/Rights:** © 2005 Joe Friedrichsen, College of Engineering, University of Colorado Boulder.

**Caption:** Figure 2. Example plastic bottle waterwheel designed by a student team.



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**A final note:** Consider the “engineering messaging” that you are conveying with your choice of images. Learn more in our *Author Tips for Effective Messaging* PDF document linked on the TeachEngineering [Submit Curriculum](#) page.