

Sharing the Universe: Outreach Training Videos

Tips for



Produced by the
Astronomical Society of the Pacific
<http://www.astrosociety.org>

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<http://www.astrosociety.org/SharingTheUniverse>



Visit the *NASA Night Sky Network* for Astronomy Activities
<http://nightsky.jpl.nasa.gov/download-search.cfm>



Sharing the Universe is based upon work supported by the Informal Education Division of the [National Science Foundation](http://www.nsf.org) (www.nsf.org) under Grant no. DRL-0638873. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.

Tips on Connecting With Kids

Main Ideas from the Video:

- Apply these steps to your interactions with the public to increase the likelihood that the kids – and the adults – will have fun and be inspired to find out more.
 1. Smile, be welcoming! Your attitude sets the stage for the rest of their visit.
 2. Grab them with an engaging question or give them something to do.
 3. Involve them in the presentation.
 4. Give them a way to discover more.

Asking Engaging Questions:

What is an “Engaging Question?” An engaging question generates responses, interest, or discussion that relates to experiences or ideas people have had, rather than “testing” their knowledge.

Why do we ask an Engaging Questions? Two main reasons:

1. To answer their question: Why would I want to listen to you?
2. To allow you to assess your visitors’ current understanding so you can adjust your presentation accordingly.

10 Examples of Engaging Questions:

1. “What have you heard about (the topic you want to cover)?”
2. “What questions does anyone have about [today’s topic]?”
3. “What do you think would happen if we found life on another planet...?”
4. “Who has ever seen a shooting star? What did it look like?”
5. (When looking in the scope) “Take a look - Tell me what you see”
6. “Have you ever wished you could travel back in time? ”
7. “Have you ever seen a satellite before? What do you think we should watch for?”
8. “Which planet would you like to explore?”
9. Refer to a poster or banner and ask them: “What do you notice here?”
10. Have younger kids lie on their backs and look at the stars – make their own patterns in the stars. Who can see a bird? What other shapes do you see?

Other Tips:

Set your own expectations realistically:

1. Expect to inspire, excite, and generate curiosity. Don’t expect kids to remember facts or master skills right away.
2. Keep it simple: Choose one primary concept you want to convey, then convey it in a variety of ways (discussion, group activity, posters, etc)

3 Easy Steps to Getting your Visitors Involved in the Presentation

1. Let them take a role – be the planets, hold a model, pass out handouts or props.
2. Keep asking them questions.
3. Relate your presentation to something they are already familiar with.

Tips for Observing with Kids:

- You may need to provide a step stool for smaller children to reach the eyepiece.
- A telescope can be a challenge for younger kids. They often have a hard time holding their head so they actually see something through the eyepiece.
- Using binoculars is much easier for a younger child to use than a telescope
 - Point to a couple of bright things to view – planets, the moon, or obvious star clusters.
 - Let them explore the sky with the instrument without being directed.
- Using a simple telescope (like a Dobsonian) that they can maneuver:
 - Put an object in the viewfinder and let them center it, then have them look in the eyepiece.
 - Put an object out of focus and let them bring it into focus.
 - Let them follow an object, manually compensating for Earth's rotation.
 - Give them basics of using the finder scope
 - Let them explore the sky with the instrument without being directed. You might want to begin in the plane of the Milky Way.
- Occasionally you will encounter people who can't get to the eyepiece and therefore can't look through it. An easy way to overcome this is to take a picture through the eyepiece. You can do this with a digital camera, cell phone camera, or using a camera attached to a TV or computer.

A Couple of Cautions:

- For your protection and the child's, avoid situations where you are alone with a child you are not related to.
- Avoid giving food of any kind (including candy) to children without their parents' consent – allergies, parental rules, and "that's not fair!" can be problems.
- Occasionally when working with kids some behavioral issues can come up. Avoid trying to discipline the kids yourself. Find the teacher or parent who is responsible for the child and ask them to deal with the situation.

Final Notes:

- In an informal learning environment, like a public astronomy night, you have the tools to provide your visitors with experiences not available in a traditional classroom setting: telescopes, the night sky, and the outdoors. You have experiences and knowledge that many formal teachers do not have. These allow you to connect what is learned in the classroom to the real world.
- Enthusiasm is catching. Show your enthusiasm for astronomy and the sky to keep your visitors involved and engaged. You'll both have a memorable experience.