Universe of Learning Tools, and how to use them!

During each session, you will have time to independently explore the Universe of Learning Resources. You can also access these at home as you work on your various projects and pick up things that interest you during our time together.

**AstroPix** is a collection of thousands of images from telescopes around the world, artwork, charts, and other tools to help you visualize the deep space concepts we have been talking about. Why use this, instead of google? The content on AstroPix has all been prepared by professionals, and the content links back to its source so you can find related information. When using these images in your projects, please make sure to check the individual content’s image use policy and cite as necessary.

**Laboratory for the Study of Exoplanets** is a program that lets you use models and telescope evidence to make predictions, assess, and interpret data. This is a great tool for those of you interested in 3D printing an exoplanet, or for learning more about them for your exhibit design projects.

**Recoloring the Universe** lets you learn to use coding to manipulate data from NASA’s Chandra x-ray Observatory and other satellites. There are various tutorials that you can download to learn about how researchers use coding to interpret the data they collect. This is an awesome resource to use in your exhibit design projects!

**Viewspace** is an awesome tool to investigate various forms of interactive science communication. It is a collection of different digital interactives and videos highlighting developments in astronomy. Study these different formats to see what tools you notice the developers using to communicate complex topics in ways that people can understand and relate to. As we meet our guest speakers, think about what similar and different techniques they use to connect you with their research. The resources are also a great way for you to continue your research for your various projects.

**Universe Unplugged** is a series of videos where you can further learn about topics you are interested in, and observe more effective science communication techniques. As we are working on preparing to facilitate our own hands-on programs, think about what you like and dislike about the different styles of communicators you observe in the videos.

**Astrovisualization** is a project using virtual and augmented reality experiences so users can interact with visualizations of the universe in new engaging ways. It is a cool project to experiment with, and think about how technology and innovation could be used in your proposed exhibits.
Eyes on Exoplanets is a great resource for better visualizing data for your 3D printing, hands-on facilitation, and exhibit proposals. If you are interested in further investigating the deep space objects our guest speakers will be speaking out, this is an interactive way to take a closer look. (Also, it is just a super cool resource to explore!)

3D Printing The x-ray Universe is a great example of the kinds of objects we can create with our own 3D printing project. Take a look at those examples, which we will further explore as our 3D printing experts teach us more about the process.