

## Video Transcript for the *Postcards from Space* Activity:

Hi, my name is Michelle and I'm part of the IBEX Education and Public Outreach team. We've designed this series of videos to show you how to facilitate the IBEX activities. This video is for the activity titled "Postcards from Space."

Now, when the IBEX Education and Public Outreach team asked museum visitors about what their concepts of the boundary of the solar system were, well not surprisingly, most people didn't know that our solar system has a boundary. And, we wanted to make sure that people understood that the IBEX spacecraft is studying the boundary region of our solar system. Now, Postcards from Space gives a way to put that boundary in context with other boundaries that people may actually know about.

Now, have you seen the tried-and-true activity where kids write a postcard and they address it to city, and state, and zip, but they also add in planet, and system, and galaxy? Well, we've given that one a bit of a twist and we're adding in the boundary of our solar system. And so, we want to add that in to give people a sense of where that boundary fits in with other things that they may know about.

So, the materials for Postcards from Space are really simple— you need a postcard and a pen or a pencil; it's really kind of that easy. So, for the postcard itself, what you'll do is print it preferably double-sided. You can make one copy in color if you want to; it helps to do that so you can see the pictures on the front pretty easily, and then the back can be black and white. Or, if you want to do the whole thing in black in white to be able to hand that out to participants, that is perfectly fine.

You'll end up using the pictures on the front [referring to postcard] to explain the information along the way. So, making those as clear as possible with the one you have in your hands is just fine. Now, as for setting up the materials, it's as simple as a table and chairs if you have to, if you're doing this maybe as a stand-alone activity. If you're doing it as a workshop, maybe as a part of an event, you may have people sitting at tables and chairs, or desks, or anything else like that, which is perfectly fine. And so, working along with these materials, you'll be able to do Postcards from Space very easily.

So, what participants are going to do in this activity is write the postcard to tell their friends and family about the boundaries they've encountered along the way in their journey outward through the solar system. They'll use this part of the postcard [demonstrating region of postcard used] to be able to do that; and writing, or drawing, or a combination of both is a perfectly acceptable way of providing that information.

On the other side of the postcard [demonstrating other side of postcard], they'll be writing the names of the boundaries they're encountering through their journey through the solar system. Now, the important part of this activity is to explain to participants that there are boundaries along the way that are real and some that you could call imaginary. Now boundaries, like the boundary of your zip code, or your city, or your state, or your country— now, those are real. But, it might be hard to see some of these boundaries if you didn't know where they were already.

You could use the picture of the U.S. [demonstrating on postcard] to illustrate some of these real boundaries that people know about. And leaving Earth may be what you might call an imaginary boundary because there really isn't a distinct line to indicate where Earth ends and outer space begins. And then you go past the planets, the rest of the planets here [referring to the postcard], you encounter the heliosphere; and so the edge of our solar system is the heliosphere boundary called the heliopause. And then finally, you'll go out to the rest of the Milky Way Galaxy.

Now, be sure to emphasize that there is only one star in our solar system— our Sun. And, that it is in the center, and material streams off our Sun— this is called the solar wind— and that material goes out far past the planets; and it interacts with the material between the stars called the interstellar medium. Now, the boundary where the solar wind doesn't go out any further— this is the boundary of our solar system. It's called the heliopause. This is the word you're going to look for on the postcards, so that's the part we want to make clear is the boundary of our solar system is that heliopause.

Now, also make sure you mention that the IBEX spacecraft is studying this region of our solar system. And when students are all done with addressing their postcard, they can write or draw their story about going past all of these boundaries in our solar system.

Now, we hope you've enjoyed learning about the Postcards from Space activity. And, to learn more, you can download the lesson plan at our website [www.ibex.swri.edu](http://www.ibex.swri.edu).

Thanks for watching!