My name is Carole Holmberg, and I work at the Museum of York County in Rock Hill, SC. Rock Hill is just south of Charlotte, NC. This talk is about our Sensory Saturdays, a program designed for those on the autism spectrum, their families, and their caregivers.

Autism, or autism spectrum disorder (ASD), refers to a broad range of conditions characterized by challenges with social skills, repetitive behaviors, speech and nonverbal communication. According to the Center for Disease Control, autism affects an estimated 1 in 59 children in the United States today.

We know that there is not one autism but many. Because autism is a spectrum disorder, each person with autism has a distinct set of strengths and challenges. The ways in which people with autism learn, think and problem-solve can range from highly skilled to severely challenged.

The genesis of Sensory Saturday came from Angela Purcell, on the right, one of our interpreters. She works with groups and families in our Naturalist Center. One of the “regulars” is a young girl with autism named Katie. Angela was looking for ways to interact with our collection that Katie enjoyed. Myself, on the left, was at a sit down restaurant one day when a young man at a nearby table had what could be described as a meltdown. People were staring. Yet, they had every right to eat out with their family member. I thought here was a population that deserved to go somewhere where people (including myself), did not make judgements. It was the Museum manager who mentioned the idea of opening early once each month. Both Angela and I work on Saturdays. It is usually just us, and two visitor service’s staff. The idea was to open the museum before regular hours, so families with members on the spectrum can enjoy the exhibits without the crowds or bright lights. We aimed to provide a comfortable and judgment-free space that is welcoming to everyone.
Here we are on our first Sensory Saturday morning, which was this past Saturday. We both had the same idea, to wear non-distracting clothing, although she wore brown and I wore black. We also did not wear perfumes or dangly jewelry.

[slide 5] Enter the Universe of Learning: part of NASA’s Astrophysics Directorate. Our Museum is a Smithsonian Affiliate, and they were offering some mini-grants (as they called them) of $2500 to Smithsonian Affiliates for accepted program proposals. I attended a webinar, and one of the things they were looking for was reaching underserved populations. Universe of Learning has as one of their goals to give learners access to guided interactions with data from across the spectrum of NASA Astrophysics missions, presented in accurate, Hollywood-quality immersive experiences. You can learn more about them on their website.

[slide 6] The Astrophysics Directorate is tasked with answering these three “big questions” and the listed missions are part of the Astrophysics Directorate and therefore considered “Universe of Learning missions.” There is a lot to choose from, especially from Hubble and Chandra.

[slide 7] So, I wrote a proposal for the $2500, listing staff training, supplies, marketing, and even conference fees to disseminate what we had learned. However, we ran into a big obstacle, and have not been able to accept the money. We cannot sign the contract unless the clause is removed. For their part, the Smithsonian says they have never been asked before to remove it, and their lawyers are now investigating.

[slide 8] Although we now had no outside money, we still wanted to go ahead with our program, although on the cheap. We felt training was essential. There was a free two-hour training for staff from two people from the York County Board of Disabilities and Special Needs, staff visited museums that already have programs for people with ASD and asked questions, Angela and I searched the web for information on ASD and for programs that
other museums had done, we talked to visitors and a staff member that have children on the spectrum, and we read this book from an author that works at Franklin Institute whose son has autism.

[slide 9] We looked throughout the Museum for areas that were bright, had flickering lights, or were loud. Our worst offenders were the newly-remodeled bathrooms with their loud air dryers that turned on whenever anyone was in range. We turned them off for the hour and had people use the paper towels. We didn’t do anything for our new self-flushing toilets that sometimes startle people. There are several different apps for decibel meters, and some are free.

[slide 10] In the planetarium, I kept the outside doors open, the audio soft and tranquil, and the lights on but dim. I raised the light levels when my one family felt it was still too dark. The family had never been to our museum before, but the child loved astronomy and they spent over 30 minutes inside. I made a show out of a few of the fulldome clips from https://www.spacetelescope.org/. Clips without audio were grouped together and relaxing royalty-free music played.

[slide 11] We lack a 3-D printer, so the Universe of Learning people sent some 3-D printed models to us. They mentioned that printed models could break easily, and therefore these were sturdier, although less-detailed. The models included a supernova and the Chandra spacecraft and were placed in the Naturalist Center.

[slide 12] The entire museum was open. The Naturalist Center, which has touchable objects, had tables chosen to engage the senses. Here are three of the tables: a children’s book about Margaret Hamilton and a tactile/braille book about the solar system; the NISE Let’s Do Chemistry activity “Chemistry Makes Scents” filled with lavender, mint, and coffee scents; and a raccoon and skunk pelt. The fourth picture shows the layout of
the room and there is always a facilitator. On Saturdays it is Angela in that role.

[slide 13] Our book said that museum dioramas are perfect for people with ASD, as they can study the animals up-close without being overwhelmed. Our museum has plenty of taxidermied specimens and dioramas.

[slide 14] We designated our classroom as the Quiet Room. In case anyone became overwhelmed, they could retreat in there. We brought beanbag chairs from our Tot Town and tried to remove distractions and anything that might be thrown.

[slide 15] In the original grant, I had written in the purchase of “Sensory Backpacks,” which a family could borrow from the front desk if they needed to, which would contain headphones, sunglasses, and comfort items such as a stuffed animal and a fidget spinner. However, it was felt that families would bring these items if they were needed and we wouldn’t have to provide. This picture comes from the Houston Museum of Natural Science’s website. In the future, Angela hopes to have a program for groups of students with disabilities and we plan to have a trunk of such items, in case they are needed for the students.

[slide 16] We were asked several times if we had a social story. That is something with words and pictures, so that families can prepare. We are still working on this.

[slide 17] York Coffee Roastery is part of MaxAbilities (the York County Board of Disabilities and Special Needs.) They roast their own coffee beans plus train people with disabilities, including autism. They will sell their coffee during future Sensory Saturdays.

[slide 18] What’s next? We wish to expand this program, or add other programs, to other disabilities. We need to expand our social story and put it on the web to eliminate the need for people to preregister, we wish to develop a program for groups, and we
still desire to have training for staff. I want to insure that we are indeed “judgement-free” and welcoming.