

An Implementation Plan for a Voyage Scale Model Solar System in Spokane, WA

SECTION 1 – The Coversheet - Partner Organizations and Contacts

Date of Submission: **May 3, 2021**

Lead Organization

Organization Name: **Spokane Falls Community College**
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Partner Organizations

Organization Name: **n/a**
Address:

Organizational Point of Contact:

SECTION 2 – The Community

Spokane is a community of about 300,000 people and is the major population center in the Inland Northwest region (Eastern Washington, Northern Idaho, and Western Montana). There are two colleges in the Community Colleges of Spokane district – Spokane Falls Community College and Spokane Community College – with a combined population of around 30,000 students. In addition to serving a large urban and suburban population in greater Spokane, the district provides educational services to rural communities throughout a 12,302 square-mile region in Eastern Washington. Spokane Falls Community College mainly serves the traditional liberal arts transfer student, with most of our graduates transferring to Eastern Washington University, located 10 miles west of town in Cheney, WA.

SECTION 3 – Your Strategic Objectives In STEM

SFCC is committed to preparing our students to think critically and globally. Even if a student is not going into a STEM-related career, scientific thinking and the ability to logically approach and solve problems are critical skills that every person should have. Our strategic objectives in STEM education are as follows:

- Identify areas to increase science literacy across the student population, including students not pursuing a STEM-related focus.
- Develop and implement a continuum of STEM outreach opportunities.
- Develop inclusive classroom environments that provide equitable opportunities for learning and engaging in STEM disciplines.

Having a *Voyage* exhibition on campus will mesh nicely with our first strategic objective. Although many of our students at SFCC are pursuing careers in STEM-related fields, the majority are working on a liberal arts AA degree so they can transfer to a 4-year university in a non-STEM major. Their exposure to science and math is often limited to just the classes required for an AA degree. A *Voyage* exhibition would be an excellent way to grab the attention of these students as they walk across campus, and make them stop and think about their place in the universe.

Regarding our second strategic objective, SFCC has a strong tradition of STEM outreach with our community and K-12 area schools. A planetarium was constructed with our new science building in 2010, and we have hosted thousands of K-12 students and community members in public planetarium shows over the past decade. Many of the students attending planetarium shows during field trips also go on a campus tour. The *Voyage* exhibition would provide a perfect opportunity for these students to spark an interest in science while experiencing the awe-inspiring scale of the solar system.

Our third strategic objective will be enhanced by the multi-disciplinary nature of the *Voyage* exhibition. Every subject area in STEM is represented in some way with a walk-through scale model of the solar system. We envision many instructors utilizing the exhibition in their classes to teach their students about physics, math, engineering, chemistry, geology, biology, etc. The accessibility of the exhibition for mobility, sight, and hearing-impaired students is also critically important for this objective.

SECTION 4 – Proposed Community Engagement

We are excited about the prospect of having a *Voyage* exhibition on our campus! As mentioned in Section 3, SFCC is strongly connected to the community through our STEM public outreach. We have staff and students dedicated to coordinating school tours for our K-12 partners, and we get schools from all over the Inland Northwest visiting our campus for planetarium shows. Our two astronomy instructors give all the K-12 shows, which are geared towards the grade-specific Next Generation Science Standards. Many schools bring several classes at once on their field trip, so one class is in the planetarium while the others are on a campus tour or experiencing a presentation by another department. A campus tour that includes a walk-through model of the solar system will be an excellent way to bring perspective to what is seen in the planetarium.

The planetarium has also generated much interest within the general public. Typically, we present several public shows a month and they are often sold out. Comprehending the scale of astronomy is always a challenge for most people attending a show. A digital planetarium is ideal for displaying the beauty and grandeur of the universe, but it is difficult to correctly convey the true scale of both size and distance in astronomy. Having a walkthrough scale model of the solar system right outside the planetarium will be a huge benefit for people attempting to understand the scale of the cosmos. The site for the exhibition will be well lit, so visitors to our evening shows will still be able to have this experience. Many of our shows are geared towards the younger audience, and a family walkthrough of the exhibition before a show would be a wonderful opportunity for children to learn more about our solar system (and burn off energy!).

We envision the *Voyage* exhibition as an excellent opportunity to connect with all visitors to campus – not just planetarium patrons. The exhibition will be constructed along the main walkway through campus, so it will be highly visible. The far end of the exhibition will be right next to our sports complex, which is used to host track meets, soccer matches, softball and baseball games, and outdoor volleyball tournaments. We envision community members from all walks of life enjoying a stroll through campus while learning something about this amazing universe we live in.