Inspire! Grants for Small Museums

Sample Application IGSM-255926-0MS-24
Project Category: Lifelong Learning
Project Type: Large Project ($25,001-$75,000)

University of Wisconsin Stevens Point, Olson Museum of Natural History

Amount awarded by IMLS:	$74,637
Amount of cost share:	$85,783

The Museum of Natural History at the University of Wisconsin-Stevens Point will improve accessibility to its exhibits with new displays highlighting its rock, mineral, and fossil collections. The museum will purchase new exhibit cases, digital display equipment, and a hands-on activity cart for installation in its newly renovated space in the Science building. Staff will hire two paid interns for the two-year duration of the project. The project will result in greater access to a wider range of visitors, including audiences who have been underrepresented in previous museum design and programming. It will also provide student interns with hands-on experience working with collections and creating interpretive media. The museum's collections are used in over 20 classes and by more than 1,350 students each year and more engaging and accessible displays will benefit faculty, researchers, students, and museum visitors.

Attached are the following components excerpted from the original application.

- Narrative
- Schedule of Completion
- Digital Product Plan
- Performance Measurement Plan

When preparing an application for the next deadline, be sure to follow the instructions in the most recent Notice of Funding Opportunity for the grant program to which you are applying.

Project Narrative

Project Justification

IMLS Program Objectives

The Museum of Natural History at the University of Wisconsin-Stevens Point is applying for an Inspire! Grant in support of IMLS Goal 2: Strengthen Community Engagement, Objective 2.1: Promote inclusive engagement across diverse audiences. Through this grant, the Museum seeks to install new rock, fossil, and mineral displays along with new interpretive, interactive, and more accessible media to support the Museum's strategic objectives of engaging and expanding our audiences and developing our internal resources, which will support the longer-term goal of eventually seeking national accreditation through the American Alliance of Museums.

Our Strategic Plan

The UWSP Museum of Natural History is the only natural history museum in the Universities of Wisconsin System and the single such entity in the central and northern tier of the state. The Museum was reorganized and formalized on UWSP's Stevens Point campus in 1968 to exhibit portions of the archaeological, biological, and geological specimens held in the University's various research and teaching collections. The aim of the museum is to inform and engage our academic and regional community through research, curation, and education of natural history and affiliated collections. In addition to sharing the Museum's collections with the public and other academic and educational institutions, the Museum serves as a teaching and learning resource for schools and the regional community. Interpretive outreach activities for school groups and elementary-aged visitors have been a mainstay of the Museum's programming since its inception. At present, the Museum is moving to a new location and needs to modernize its exhibits to meet teaching and learning needs and improve accessibility to underserved patrons. The Museum's strategic plan includes engaging and expanding its audience to foster lifelong learning and raise public awareness of the value of museums as a trusted source of knowledge and expertise in the natural sciences and beyond. Admission to the Museum is free of charge, and as such the Museum relies on gifts and grants for new exhibitions, acquisitions, and educational program development.

Our Challenge – Making Our Museum More Accessible

The Museum was previously located in Albertson Hall, which was recently demolished due to its poor condition. In 2022, the Museum's contents were moved into storage in the Science Building. UWSP's administration has slated three study rooms, two large classrooms, a large lobby space, storage areas, and one giant multilevel lecture hall in the Science Building as the Museum's new home. The College of Letters and Science funded the renovations of the three study rooms, and in the summer of 2023, Museum staff began moving into the new "Discovery Center" with live animal exhibits, a gift shop, and displays of rock, mineral, and fossil collections. The Science building will be the new permanent home for the Museum, near UWSP's Planetarium and Observatory.

While moving into this new location, and after visiting other museums in preparation, it became clear that the Museum's rocks, fossil, and mineral collection displays are outdated and create barriers to those with visual and cognitive disabilities. The current cases are decades old, show damage and wear, have mirrored sides, and are low to the ground. The reflective nature of these cases can make it difficult to focus on the objects being displayed. Some of these cases have shelves that are very low to the ground, starting at about 6 inches from the floor. They also lack tempered glass, creating a potential safety hazard given the weight of the specimens. The Smithsonian Museum's Accessibility guidelines for museum exhibits provide a set of standards that aim to make exhibitions accessible and enjoyable for people with disabilities and diverse audiences. They are based on legal requirements, best practices, and creative solutions that address various aspects of exhibition design, such as content, items, labels, audiovisuals, furniture, color, lighting, and programming. These guidelines provide the foundation for choosing new display and exhibition cases.

The Museum will also purchase equipment, materials, and provide wages for students and interns to design and install these exhibits, create interpretive media, and install tactile components to accompany the specimens. By updating the exhibits, the Museum will become more accessible to our community regardless of ability or background. A study by the Centers for Disease Control and Health Resources and Services Administration found that 17% of U.S. children aged 3–17

years had a developmental disability in 2015–2017, an increase from 16.2% in 2009–2011, with higher rates for some subgroups and specific disabilities such as ADHD, ASD, and ID. The study suggests that professionals should use these findings to understand the trends and plan for the needs of children and families affected by developmental disabilities. The Museum will redesign and modernize its exhibit, display, and programming spaces to meet this community need for broader accessibility.

The Museum also seeks funding to better attract and engage visitors who are used to accessing information and entertainment online using touchscreens. Digital media can capture the attention and curiosity of visitors, especially younger generations who are more familiar with online platforms and devices. Digital media can also create emotional connections between visitors and exhibits, by allowing them to interact with the content in various ways, such as exploring different perspectives, creating their own narratives, or participating in games and challenges. Digital tools, such as the proposed touchscreens interfaces, are especially valuable for regional teachers lacking the capability or funds to bring their classes to the Museum.

Target Group

To help guide planning for the Museum's new spaces, a survey was conducted in 2022 to collect information from students, staff, and the public. Accessibility was the prominent theme as stakeholders expressed the desire for the Museum to be an inviting, engaging, and interactive place for all ages, abilities, and backgrounds. With the creation of the new Outreach Coordinator position, the Museum now has a dedicated staff to curate its new spaces and manage staff to bring hands-on activities to fruition and incorporate engaging interactives into as many displays as possible.

The Museum of Natural History serves the central Wisconsin area, including Portage, Marathon, Wood, Waushara, and Adams counties. Many of these areas are rural and agricultural. This covers over 4,500 square miles and just under 327,800 people, including significant and growing populations of Hmong, Hispanic, and several immigrant groups. The number of school age children in our surrounding area is approximately 75,000. The Museum provides 150-200 free tours to school groups, and more than 2,500 children participate in Story Time and other programming annually. Combined with walk-in visitors and special annual events, such as Collection Crawl, Homecoming, and Family Day, the Museum had approximately 20,000 visitors annually before the COVID-19 pandemic. Even utilizing provisional spaces, the Museum's programming is already attracting significant interest in the community. From September to October 2023, over 150 participants attended Museum programming, including our Story Time and Junior Scientist programs.

According to the Wisconsin Department of Health Services, the percentage of people with disabilities in central Wisconsin varies by county and by type of disability.[1] For example, in Portage County, where Stevens Point is located, the percentage of people with any disability is 11.5%. According to the U.S. Census Bureau, the percentage of people with disabilities in Stevens Point is 8.6%.[2] Stevens Point has a population of about 25,716 people, which means that there are about 2,211 people with disabilities living in the city. Creating spaces that are accessible for those with disabilities in turn creates spaces that are more accessible for all.

Ultimate Beneficiaries

In addition to serving the broader community, the Museum directly serves the UWSP campus community which consists of approximately 8,000 students and 1,100 employees. The Museum's collections are used in over 20 classes and by more than 1,350 UWSP students each year. Over the past five years, Museum curators have mentored over 200 student interns and researchers, while more than eight student-run organizations and clubs are affiliated with the Museum in some fashion, such as the Herpetology Society and the Ichthyology and Aquarium Science Society. Through those efforts, the Museum helps train future museum professionals on best practices on displaying museum collections and how to use the collections to provide accessible education and outreach. In the 2023-2024 academic year, over 30 UWSP students have already indicated interest in working in the Museum. Many of those students, typically majoring in Museum Studies, Natural Science, or Education, specifically Environmental Education or Early Childhood Education, will be hired to create educational media and free public programming to highlight our new spaces and collections. As a higher learning institution, the Museum has the capacity to guide other small museum partners in the process of the

development and installation of touchscreens, so the ultimate beneficiaries are the general public with an emphasis on preschool and elementary students.

Project Work Plan

Specific Activities and Sequence

September 2024 – December 2024: Design

Preliminary assessment begins. Museum Director and Outreach Coordinator will meet with staff from the Disability Resource Center and the Campus Senior Facilities Designer to develop an accessible floor plan for the collection. These staff will advise on the displays and seating best suited to meet the accessibility needs of campus and community. The Disability Resource Center will ensure our plan aligns with UWSP's access policies and Smithsonian Exhibit Accessibility guidelines. Purchase tablet and accessible stand to be used as assessment tool in the existing Museum space. The Museum Director will work with the Outreach Coordinator to develop a survey for visitors to assess accessibility.

September 2024 – July 2026: Assessment

All activities, displays, digital display, and interpretive media will be reviewed for accuracy by the Museum curators. The activities, displays, digital display, and interpretive for the digital display will be piloted with target groups from a variety of backgrounds, abilities, and knowledge bases. The results of the pilot will be reviewed and incorporated into the activities, displays, digital display, and interpretive media, as appropriate.

The following questions will help guide designers to focus their evaluations.

- Relevance: How well does the media relate to the visitor's prior knowledge, interests, and expectations?
- Accuracy: How accurate and reliable is the information presented by the media?
- Clarity: How clear and understandable is the language and design of the media?
- Appeal: How attractive and appealing is the media to the visitor's senses, emotions, and imagination?
- Challenge: How challenging and stimulating is the media to the visitor's intellect, curiosity, and creativity?
- Involvement: How interactive and participatory is the media for the visitor?
- Enjoyment: How enjoyable and satisfying is the experience of using the media for the visitor?
- Meaning: How meaningful and memorable is the message conveyed by the media for the visitor?

The visitor survey will be used while the Museum houses the old and new displays, which will help illustrate what was done well and what still needs improvement. This information will be used to build accessible displays additional exhibits are installed.

January 2025 – April 2025: Purchase

Work with UWSP Purchasing to send requests for quotes on the accessible displays, digital display, pedestals, and seating. Information technology will advise on the most suitable digital display for campus use. Hire student Collection Intern to compile information about our rock, fossil, and mineral collection. The Curator of Geology will work with the student to identify the items to be installed in the new display. Work with UWSP Facilities to build a custom-made hands-on cart.

May 2025 – August 2025: Install and Move Collection

Student Intern, under the supervision of the Curator, will disassemble the existing exhibit and put the collection into storage. UWSP facilities will move the old display cases out and then assemble and install the new display cases, seating, and interactive display. The curator will supervise the students on best practices for displaying minerals. Outreach Coordinator will work with Information Technology to set up the Digital Display focusing on three displays:

- The Haertel Rock and Mineral Collection: A large, tiered mineral display was created in 1989 to showcase the rock and mineral collection of Mr. and Mrs. George Haertel of Stevens Point. The Haertels donated over 1,400 rocks and minerals in 1990, a portion of which were used in this display. The large glass case contains mineral

specimens organized by chemical group, including a selection of fluorescent minerals that could be illuminated under two bandwidths of UV light.

- Crystals: The minerals are stand-alone and more "showy" samples from the Haertel collection. Some are mineralogically duplicates of specimens in the other display but are not organized in any systematic way.
- Selection of Fossils: The bottom two rows of the case contain fish fossils from the Eocene Green River Formation in Wyoming. The petrified wood is also Eocene from the Blue Forest locality, Wyoming. Fishes include Diplomystus, Knightia, and Phareodus spp., among others. The top shelf contains Eocene stromatolites (Douglas Pass, CO) and tube worms, as well as Silurian aged invertebrate fossils from Wisconsin.

June 2025 – April 2026: Interpretation/Displays

Student Interpretation Intern hired. Intern will create content storyboards for the displays, which will be reviewed by the Curator and Outreach Coordinator. Once finalized, the Interpretation Intern and the Collection Intern will work together to compile the information for the storyboards. This will include videos on specimens, high-quality images, and text.

In addition to interpretive displays, the Interpretation Intern will use the same media to design the interactive digital display utilizing a large, accessible touchscreen that allows users to navigate through the collection. The content will be uploaded onto the Museum's website increasing the accessibility of the collections to those outside the immediate area. The digital content will be evaluated after 30 days and then quarterly to assess problems or other needs for updating and implement changes based in visitor surveys and interviews, observation and tracking, testing, and experimentation.

Hands-on activities that complement the collection will be created by the Interpretation Intern and Outreach Coordinator. These activities will be adaptable to different grade levels and audiences. Activity kits will be created as appropriate. Activities for the hands-on cart will be created, supplies purchased, and installed.

Risks and Mitigations

This proposal entails several possible challenges, although each can be reasonably overcome. For example, identifying and developing appropriate displays and exhibits is a team endeavor and takes a variety of skills and perspectives to pull together a successful exhibit. The Museum benefits from trained staff and the expertise of the Committee of Curators, as well as many other faculty and staff on UWSP campus with expertise in Natural History, Science, Museum Studies, and Natural Science and Environmental Education. Further, UWSP has non-faculty expertise and resources available in Facilities and the Disability Resource Center, to name two examples.

Supply delays are another possible challenge that will require early planning and contingency plans. This can be mitigated by identifying and prioritizing the most critical parts or components according to the project plan and finding alternative sources as necessary. A final potential challenge could be hiring students during the summer months, but Museum programming is significantly reduced during the summer and the work plan focuses on the academic year calendar of fall and spring semesters.

Project Manager

The Outreach Coordinator for the Museum of Natural History will plan, implement, and manage the project with oversight for the Director and expertise from the Curator of Geology. UWSP has a large diverse group of staff with many areas of expertise, information, skills, and knowledge, such as the Art and Design department, IT, Facilities, and the Disability Resource Center.

Other Resources

This project will benefit from matching resources provided through the College of Letters and Science and UWSP, primarily through staff time and existing equipment such as cameras, computers, and editing software to produce video and audio content. UWSP provides all workspaces, along with office supplies, computers, software such as Microsoft Office, One Drive, Teams, and SharePoint to allow grant participants to store files, communicate, and collaborate. The Universities of Wisconsin has an expansive library system with access to many types of resources including images, maps, books, research papers, and news articles that could be used in creating our educational materials.

Tracking Progress

Based on benchmarks for progress in the Schedule of Completion, the Outreach Coordinator will provide monthly updates of visitor counts, quarterly budget reports, and program counts by the semester to the Museum Director and Dean of the College. Museum visitors will have opportunities to provide feedback using the iPad kiosk through visitor surveys, tests, and/or questionnaires. The Outreach Coordinator will include completed survey counts and any remarkable data in monthly reports.

Project Results

This project will provide greater access to a wider range of visitors, including audiences who have been underrepresented in previous Museum design and programming. The Museum will thereby provide more meaningful experiences, including for groups typically excluded, allowing them to build their knowledge and skills in natural history.

Based on data from visitors, university staff, and students, the Museum staff will continue to improve displays and educational materials, while the addition of digital media will better position the Museum to engage and expand its audiences in alignment with the Museum's strategic plan. The experience from the initial touchscreen will inform the incorporation of additional touchscreens to maximize the multimedia program contract and to demonstrate capabilities to create more interfaces, continuing to incorporate accessibility as new exhibits are installed.

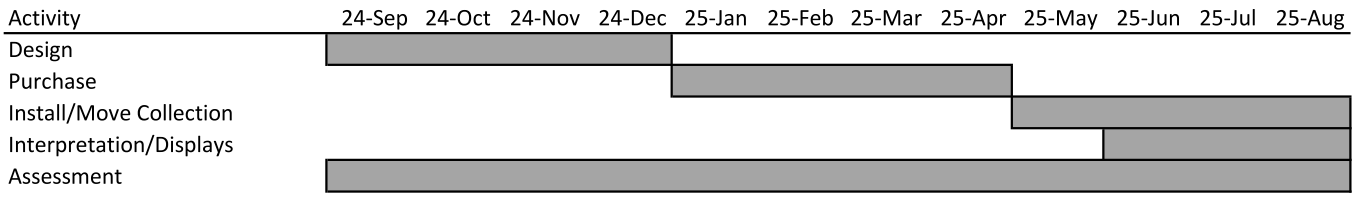
This project provides student interns a real-life opportunity to work with a collection and create interpretive media. Designing interpretive media can be a valuable way for university students to gain experience in critical thinking, creativity, collaboration, and communication skills. This grant will offer students the opportunity to create interpretive media for real-world audiences and contexts. Students will be able to work with mentors or peers who have expertise in interpretive media design. They will be able to explore different types and modes of interpretive media and learn from their strengths and weaknesses. This will also allow them to examine interpretive media at other museums and see them more critically than as just a user. Students thrive through project-based learning as it encapsulates many different skill sets and integrates them into one end result.

The Museum's Discovery Center spaces have windows that provide an abundance of natural light which lends itself to displaying minerals and crystals. The geology and paleontology collections will be best served with new cases and pedestal stands for improved accessibility and better visual display. To reduce reflections and distracting light, the new cases will employ light absorbing interiors with neutral and matte finishes. Several low pedestal-type stands will permit the display of large rock, mineral, and fossil samples that can be touched by visitors. A 'rock and fossil' cart will create an additional point of contact where Museum staff and interns can highlight a variety of touchable objects from the collections that were not previously on exhibit. The previous tactile rock and mineral samples were wall-mounted at heights inaccessible to younger visitors. These were also built in and could not be relocated to the Museum's new spaces.

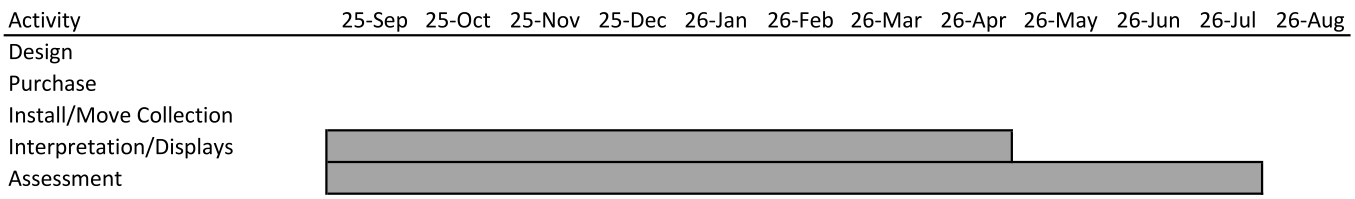
If awarded an Inspire! Grant, the Museum of Natural History at UWSP has an excellent opportunity to improve and promote access to the Museum's collections and programming and thereby support the Museum's strategic objectives of engaging and expanding our audiences and developing our internal resources, eventually supporting the longer-term goal of eventually seeking national accreditation through the American Alliance of Museums. Further, the Museum is well positioned to implement this grant due to our trained and dedicated team of staff, students, Curators Committee, the support from the University, the popularity in our community, and the creativity of our UWSP students.

Schedule of Completion

Year 1



Year 2



Digital Products Plan

Digital Products Plan - Touchscreen - Rocks, Minerals, and Fossils

Student workers will create an interpretive media interface focusing on the Museum's rock, mineral, and fossil collections to be accessed through a touchscreen.

Type

All projects will be HTML webpages hosted. Media will utilize ThingLink or comparable multimedia editor. TIFF is the preferred media files for images, but JPEG will also be used. Video files will be stored as MP4s and Audio files as WAV.

Availability

The touchscreen devices will be installed next to the exhibits. The HTML site will also be accessible on the Museum's website, freely and readily available for use by libraries, archives, museums, and the public. The marketing plan includes outreach to local school districts to ensure that teachers and librarians understand how to access and utilize this information, as well as in person programming that incorporates and/or focuses on the touchscreen interface with a focus on school group field trips.

Sustainability

Through the grant cycle and after its completion, the Museum will store images, videos, audio, and other associated files in cloud-based storage for future use in Museum interpretive media. Funding will be sought for additional touchscreens to acquire additional interpretive stations to maximize use of the Museum's multimedia program contract. The installation of the first touchscreen interface will provide practical experiences for creating more interfaces and incorporating accessibility as the Museum builds out additional exhibits, displays, and programming.

Access

We will use a creative commons license, such as CC BY-NC-SA 4.0 Attribution-Noncommercial-Share Alike 4.0 International. This license requires that re-users give credit to the creator. It allows re-users to distribute, remix, adapt, and build upon the material in any medium or format, for noncommercial purposes only. If others modify or adapt the material, they must license the modified material under identical terms.

Work Plan

- Student interns will begin by gathering information on the rock and fossil collections, including the Haertel Collection and crystal collection from the Green River Formation, to create a volume regarding each item including locations collected, people involved, and natural history.
- Staff and student interns will collect video and audio files related to specimens, possibly including interviews with curators, former directors, and Museum staff. The Museum owns cameras, tripods, microphones, and external storage drives to use for this purpose. The university has faculty and dedicated marketing staff that have expertise in best practices with photography and lighting, i.e., Curator of Photography.
- Digital content storyboards and sketches are created by students and staff using collaborative interfaces such as Microsoft Teams, OneDrive, and/or PowerPoint. In addition to a content review by the Curator of Geology, students will use the following sites as resources, taking into consideration the size, shape, position, and feedback of touch targets:
    - Federal Agencies Digital Guidelines Initiative: https://www.digitizationguidelines.gov/
    - National Association for the Education of Young Children: https://www.naeyc.org/resources/topics/technology-and-media/
    - Web Content Accessibility Guidelines: https://wcag.com/designers/
- Interpretive media is created within ThingLink or other multimedia platforms. Most multimedia software has dedicated customer support to help us navigate any hurdles. UWSP also has a dedicated IT department available for consultation. These types of app-based programs allow for the addition of icons, or 'tags,' which can link to other media. For example, an image of an entire display case is the main image you see when approaching the touch screen. Tags or touchpoints will be visible at certain points that highlight certain aspects or items in a collection. Each tag could link to a video or story providing more detail about the item. The multimedia platform

would also offer an Immersive Reader, which allows text to be displayed in more than 60 languages and reads text aloud.

- Digital content is piloted with target groups from a variety of backgrounds, abilities, and knowledge bases, such as local teachers and childcare workers, UWSP students, staff, and the UWSP Disability Resource Center. Content will be edited to reflect suggested improvements from student and public sessions.
- Content will be embedded on the Museum's website to allow access to anyone.
- Digital content is evaluated by staff after 90 days and every 90 days after to assess problems or other needs for updating and implement changes using the following resources as evaluation guidelines:
    - American Alliance of Museums, Education and Interpretation Standards: https://www.aam-us.org/programs/ethics-standards-and-professional-practices/education-and-interpretation-standards/
    - Collections Trust, 10 Tips for Museum Interpretation: https://collectionstrust.org.uk/wp-content/uploads/2016/10/10-Top-Tips-for-Interpretation-2011.pdf
    - U.S. National Park Service, Foundations of Interpretation: https://www.nps.gov/idp/interp/101/foundationscurriculum.pdf

Applicant Name: University of Wisconsin-Stevens Point Museum of Natural History

Project Title: Accessibility Rocks!

Effectiveness: The extent to which activities contribute to achieving the intended results

- Museum staff will collect and record daily visitor numbers by keeping a tally at the welcome desk. Tallies will be reported monthly to the Outreach Coordinator.
- Museum staff will track the number of programs offered and participants. These numbers will be recorded and reported to the Outreach Coordinator.
- Museum staff will collect the number of visitors that complete our accessibility survey monthly. These numbers will be recorded and reported to the Outreach Coordinator.
- Museum staff collect demographic information including county of residence and how far they traveled to visit the Museum using the survey.
- Museum staff will report the number of students employed by the Museum to the director.
- Museum staff will count the number of field trips scheduled monthly from the beginning to the end of the grant.
- A checklist will be created for each installed unit based on criteria developed through the Disability Resource Center and Facilities so that all the metrics developed can be adhered to by any student or staff.

Efficiency: How well resources (e.g., funds, expertise, time) are used and costs are minimized while generating maximum value for the target group

- Museum staff will assess expenditures and alignment with budget goals to ensure compliance with the University's strict quarterly reporting requirements.
- The Outreach Coordinator will create a quarterly budget report for review by the Dean of College of Letters and Science.

Quality: How well the activities meet the requirements and expectations of the target group

The continued use of visitor surveys via the tablet kiosk will provide data to understand if we are meeting our expectations. Survey questions may include:

- Relevance: How well does the museum relate to the visitor's interests, and expectations?
- Accuracy: How accurate and reliable is the information presented?
- Clarity: How clear and understandable is the language and design?
- Appeal: How attractive and appealing are the spaces to the visitor's senses, emotions, and imagination?
- Challenge: How challenging or stimulating is the media to the visitor's intellect, curiosity, and creativity?
- Involvement: How interactive and participatory are the exhibits and media for the visitor?
- Enjoyment: How enjoyable and satisfying is the experience for the visitor?
- Meaning: How meaningful and memorable is the message conveyed to the visitor?

Significant information will be included in the monthly project reports made by the Outreach Coordinator.

Activities, digital displays, and interpretive media will have at least one content review completed to ensure accuracy. The content reviewer will provide written feedback that will be used to make improvements. Activities, digital displays, and interpretive media will be piloted by the end user. The reviewer will complete an evaluation that will be used to make improvements. This will also ensure the activities, displays, and interpretive media are meeting their content objectives as well as the accessibility objectives.

Timeliness: The extent to which each task/activity is completed within the proposed timeframe

- Museum staff will use the work plan to track progress. The Director will meet with the Outreach Coordinator monthly to check the status of the project as it relates to timeline, budget, and program development.