

**Award Number:** P14AC00992

**Project Number**: CCAC-08

**CFDA #:** 15.945

**Park/NPS Unit: Mesa Verde National Park**

**Title of Project: Develop Current On-Line and Place-based Learner Curriculum for Mesa Verde National Park**

**Administered through the:**  Colorado Plateau Cooperative Ecosystem Studies Unit Cooperative Agreement Number H1200-09-0005

**CESU Partner: Crow Canyon Archeological Center**

**PROJECT CONTACTS:**

**Principal Investigator:** Dr. Anna Cole, Ph.D., Curriculum Developer, Crow Canyon Archeological Center, 23990 Road K, Cortez, CO 81321; (970) 564-4344; (970- 564-4859 fax); acole@crowcanyon.org

**Co-Investigator :** Dr. Kathy Stemmler, Ed.D., Director of Education, Crow Canyon Archeological Center, 23990 Road K, Cortez, CO 81321; (970) 564-4358; (970\_ 564-4859 (fax); kstemmler@crowcanyon.org

**Researcher:** Becca Simon, Educator/Curriculum Developer, Crow Canyon Archeological Center, 23990 Road K, Cortez, CO 81321; (970) 564-4366; (970-564-4859 fax); rsimon@crowcanyon.org

**Partner Administrative Contact*:***Dr. Shirley Powell, Ph.D., Vice President of Programs, Crow Canyon Archeological Center, 23990 Road K, Cortez, CO 81321; (970) 564-4373; (970- 564-4859 fax); spowell@crowcanyon.org

**NPS Certified ATR:** George San Miguel, Natural Resource Manager, Mesa Verde National Park, 970-529-5069, (970-529-5071 fax); george\_san\_miguel@nps.gov

**FUNDING INFORMATION:**

**Amount Funded: $20,179**

**NPS Account Numbers (amounts in parentheses):**

|  |  |  |  |
| --- | --- | --- | --- |
| PPIMMEVE00 | PPMVSIE1J.IE0000 | PX.P0177322A.00.1 | 144P103601 |

**Fund Source**

[x] NPS Funding **Education and Interpretation funds via PMIS project 177322**

[ ]  Is this funded using a reimbursable account number? If yes, IMR contracting needs a copy of the Interagency Agreement.

**PROJECT DATES:**

**Start Date: October 1, 2014**

***NOTE: This Task Agreement will become effective on the date of final signature or the effective date of the Award document, whichever is later.***

**End Date:** March 31, 2016

**NPS Administrative Contacts**

**Interim CESU Coordinator (May 18 – September 13, 2014):** Todd Chaudhry, National Park Service/CPCESU, NAU P.O. Box 5765, Flagstaff, AZ 86011, 928-523-6638, Fax: 928-523-2014; todd\_chaudhry@nps.gov

**Intermountain Region Administrative Contact:** Kelly Adams, Grants and Agreements Specialist, National Park Service, 12795 West Alameda Pkwy, Lakewood, CO 80228. Phone: 303-969-2303 Fax: 303-969-2992 Email: Kelly\_adams@nps.gov

**FEDERAL FINANCIAL REPORTS:**

***Federal Financial Reports*** (Check as required for project based on spending plan, period of performance, risk, cooperator history, etc.)

{X } Quarterly { } Semi-annually { } Annually

Final (required)

**Project SCHEDULE AND TECHNICAL REPORT DEADLINES:**

List all technical reports and products in sequential order as required in the scope (more lines and milestones can be added as needed):

*Project Start Date* – 10/1/2014

|  |  |
| --- | --- |
| **DATES** | **ACTIVITIES** |
| 10/1/2014 – 12/31/2014 | Coordinate with regional schools and review state standards |
| 11/1/2014 – 3/31/2015 | Lesson development |
| 5/1/2015 – 5/30/2015 | Field program delivery and testing |
| 11/1/2014 – 9/1/2015 | On-line program development and implementation |
| 5/1/2015 – 7/31/201512/31/20153/31/2016 | Evaluation and revisions as neededFinal reportsProject completion |
|  |  |

*Technical progress reports –* {X} Quarterly { } Semi-annually { } Annually

(Check as needed from PI to monitor progress of specific project. Content should be addressed in the scope.)

*Investigator’s Annual Report (IAR)* – NTE 3/31/2016

*Database, Collections/Specimens, Archives, and Maps provided to the NPS ATR or Technical Expert* – NTE 3/31/2016

*Draft Final Report* 11/31/2015

*Final Report* – 12/31/2015

*Project End Date* - 3/31/2016

*Final SF425 FFR* must be submitted within 90 days of project end date

**PAYMENTS**

**2 CFR PART 215.22*:*** Cash advance (drawdown) to recipient organization shall be limited to the minimum amounts needed and be timed to be in accordance with the actual immediate cash requirements of the recipient organization in carrying out the purpose of the approved program or project. The timing and amount of cash advances shall be as close as is administratively feasible to the actual disbursements by the recipient organization for direct program or project costs and the proportionate share of any allowable indirect costs.

**2 CFR PART 215.25 (8)(e)(1):** Incur pre-award costs 90 calendar days prior to award or more than 90 calendar days with the prior approval of the Federal awarding agency. All pre-award costs are incurred at the recipient’s risk. (i.e. the Federal awarding agency is under no obligation to reimburse such costs if for any reason the recipient does not receive an award or if the award is less than anticipated and inadequate to cover such costs.)

**CESU REQUIRED PRODUCTS (may be different from those products required by the ATR – See Statement of Work for Products required by the NPS unit):**

The Principal Investigator will prepare a brief report abstract suitable for public distribution and two hard copies and an electronic version (in PDF file format) of the final report and mail all toTodd Chaudhry, National Park Service, CPCESU, NAU P.O. Box 5765, Flagstaff, AZ 86011. Please be sure to include the project number (e.g.; NAU-###, UMT-###, UAZDS-###) and the P number on the cover page of the final report.

**PROJECT ABSTRACT:**

This project will develop place- and community-based lessons for 5th-grade through middle-school students and instructors. These lessons will connect the globally significant resources of Mesa Verde National Park with schools from throughout the country and world. The lessons will feature Mesa Verde National Park, the lives of the Ancestral Pueblo people who made it their home for over 700 years, from A.D. 600 to 1300, and the Park’s nearly 5,000 known archeological sites (including 600 cliff dwellings). These sites are some of the most notable and best preserved in the United States.

The lessons will be grounded in 21st century skills and common core standards. They will utilize best practices in place-based education, the interdisciplinary teaching framework referred to as STEAM education (Science and Technology, interpreted through Engineering and the Arts, all based in Mathematical elements), experiential learning, and online curriculum design and delivery. Learning environments will focus on the Park’s cultural and natural resources, and will include components for use in classrooms; the field; and online for individual students, classrooms, school districts, and regional learning communities. The unifying concept will be the unique places, cultures, and histories that make the cultural and natural resources of Mesa Verde National Park globally significant.

**Scope of Work:**

PROJECT DESCRIPTION: Mesa Verde National Park is notable for its cultural and natural resources. Located in rural southwest Colorado, the park draws about half a million visitors annually from around the world. However, school field trips are difficult for most school districts, and only about 4000 students visit annually on organized field trips, largely due to the costs associated with transportation. Imagery of iconic archeological sites like Cliff Palace and Balcony House is widely known and recognized, and can serve as a portal to the history of the Ancestral Pueblo people who lived here for over 700 years. Stewardship topics including cultural preservation, cultural respect, Southwest American native cultures, the development of the discipline of archeology, the US national park movement, and others are also ripe for sharing with students.

School districts around the country face a number of unique challenges and opportunities. Resources and opportunities are often limited by location, cost, or scale, and many districts or schools are not able to support development of innovative student-centered and place-based programs. Increasing technological capacity in schools enables access to online outlets as opportunities for diversified instructional opportunities; those districts lacking technological capacity do without. This project will offer on line and on site options for a variety of school districts nationally and internationally.

For this project, Mesa Verde National Park will work directly with Crow Canyon Archaeological Center (CCAC), located in Cortez, Colorado. Cortez is Mesa Verde’s gateway community. CCAC’s mission is to advance knowledge of the human experience through archaeological research, educational programs, and collaboration with American Indians. The Center:

* Conducts sustained field research in the American Southwest in collaboration with the public
* Develops and tests archaeological methods and theories
* Creates and delivers engaging and enriching educational materials and programs
* Collaborates with American Indians to develop and implement research and education programs
* Explores past and present cultures worldwide
* Collaborates with individuals and organizations with common interests
* Disseminates its work through multiple media

Crow Canyon has a long and successful history of partnering on large, complex, and productive projects with numerous foundations and agencies, including Mesa Verde National Park. These projects have focused on the central Mesa Verde region and have linked four millennia of occupation of this area by ancestral Pueblo people to their modern, living descendants. Crow Canyon projects have emphasized archaeological research, educational programming, American Indian initiatives, and public-audience products, many of which are available on the Center’s web site ([www.crowcanyon.org](http://www.crowcanyon.org)).

Curriculum will use the Colorado District Sample Curriculum Template to align to common core standards, best practices in STEAM, and integrate multiple disciplines. An online web portal for the project will facilitate the sequential nature of the curriculum through:

• Vertical alignment of 21st century skills through the K–8 curriculum

• Online coordination of curricular materials

• Online access for teachers, students, parents, and community members

• Online forums for teachers, students, parents, and Community Partners to interact and share work

• Resources to cultivate and house student online portfolios throughout the project

• Additional resources to help students, parents, community members and teachers to learn more about the amazing places, cultures, and histories this project will bring to life.

Working together, Mesa Verde National Park and Crow Canyon Archeological Center will develop a curriculum that can be delivered on-line, in the classroom, and in the field that includes the following components. There are opportunities to partner with other agencies and community organizations to support future extensions of this project.

We propose developing standards-based curricular materials to support a two-to-four week thematic unit consisting of two sets of lessons—one for upper-elementary-school students and one for middle-school students. Each of the sets would be standards-aligned (for example, US history for upper elementary, and water and the water cycle for middle school), and each would consist of three activities:

* A pre-expedition lesson plan and web quest that would be based on existing on-line resources (Mesa Verde’s web site, Crow Canyon’s web site, and others as appropriate).
* A 2–2½ hour field expedition, focused on a Mesa Verde archaeological site appropriate to the selected standards, guided by a Mesa Verde National Park interpreter, and facilitated by the field journal. The field expedition could be an actual on-site field trip, or as we develop the capacity for video-conferencing from the Park, the field expedition could be delivered via interactive video between the classroom and the field site.
* A follow-up (geographical, temporal, personal, etc.).

**COOPERATIVE AGREEMENTS OR TASK AGREEMENTS INVOLVING COOPERATORS WORKING ON-SITE**

**Background**

In cooperative agreements or task agreements with universities where the university utilizes interns, student employees, research associates (RAs) or cooperators on-site (hereafter called “cooperator personnel”), these cooperator personnel sometimes work on government sites in close proximity to federal employees. It is illegal (without specific statutory authority) for federal employees to directly supervise the cooperator personnel or any university employees or for the students or other university employees to supervise federal employees. When cooperator personnel are working on an NPS site, it is important that there is a clear distinction between students and federal employees.

**Office Environment and Vehicles**

* The office space of the cooperator personnel and NPS personnel should be clearly labeled (Name and NPS or University affiliation on office or cubicle space).
* Cooperator personnel should be listed separately from NPS personnel in telephone lists, other identification or organizational rosters, and publication credits.
* Cooperator personnel should not receive “all-employee” e-mail or other communications intended for NPS personnel (unless it relates directly to the work the cooperator is doing for the NPS). When the e-mail does relate to the work being done, a copy of the same e-mail message should be sent to the University or cooperator’s supervisor.
* Cooperator personnel may use NPS e-mail systems when the communication relates directly to the work the cooperator is doing for the NPS. The e-mail addresses of the cooperator personnel must include a label associated with their NPS e-mail address that identifies the cooperator’s status (i.e., “Linda Webb, Cooperator” would be the label associated with the e-mail address, linda\_webb@contractor.nps.gov). Doing so clearly identifies this individual each time they send an e-mail message using the NPS system, and it identifies their status as a research associate, student intern or student employee in the e-mail directory.
* Unless stipulated in the agreement, cooperator personnel should not drive government vehicles.
* Unless stipulated in the agreement, cooperator personnel should not ride as a passenger in a government vehicle. When this is planned as part of the agreement, an appropriate amount of liability insurance should be negotiated.
* Prior written approval by the Park Superintendent or Center Manager must be obtained in order for a task to allow cooperator personnel to drive or ride in government vehicles.

**Supervision and Scheduling**

* Each task must specify the university’s/cooperator’s supervisor for the cooperator personnel.
* Unless stipulated in the agreement, NPS staff should not set hours for cooperator personnel, specify where the work should be done, or conduct performance appraisals. National Park Service staff may give performance feedback to the cooperator personnel supervisor.
* Cooperator personnel should report leave, scheduling, and other related issues to the university or cooperator’s supervisor, not to NPS employees. The supervisor of the cooperator personnel should then communicate with the NPS. National Park Service employees cannot directly supervise cooperator personnel on a day-to-day basis. Work should be given to the cooperator personnel (via the cooperator’s supervisor) on a “task basis.” Cooperators should work without NPS supervision to accomplish each task, although technical consultations and cooperation is permissible.
* The Cooperator will be responsible for any disciplinary action needed to correct student employee conduct or performance problems. The NPS agreements technical representative will inform the university/cooperator’s supervisor of any conduct or performance problems.
* The Cooperator will remove student employees from their positions if they fail to improve performance or address conduct issues.
* The NPS will review and provide feedback to students or interns regarding work assignments.
* The NPS will inform the cooperator of conduct or performance problems with cooperator personnel so that the university can counsel employees and correct the performance problems.
* The NPS will recommend to the cooperator dismissal of cooperator personnel based on conduct or performance issues.
* The Cooperator will hire students, interns or RAs to work on NPS tasks identified in the agreement. Hiring will be conducted in consultation with the NPS Agreements Technical Representative (ATR).
* The Cooperator will: pay students, interns or RAs for hours they have worked in support of the agreement.

**Representation and Communication**

* Cooperator personnel cannot in any way represent themselves to the public as NPS employees.
* Cooperator personnel are required to wear visible identification at all times.

**Other Issues**

* Cooperator personnel should not list an NPS affiliation on publications, but rather should list the cooperative agreement under which the work was performed.
* Cooperator personnel should not be invited to official NPS “social” events.
* Cooperator personnel will follow the local policy of the facility when federal facilities are closed due to early release for holidays, snow days, etc.

**PRODUCTS:**

* **Review of 5th- grade and middle-school standards**
* **Visits with local school administrators**
* **Meeting with MEVE counterparts to review information and develop priorities**
* **Lesson plan development (6 lessons)**
* **Identify and assemble teaching materials**
* **Identify graphics; incorporate into field journal**
* **Field journal development**
* **Finalize lesson plans and field journal**
* **Field journal printing**
* **Coordinate logistics for a trial field day: schedule, arrange personnel and transportation, coordinate with schools, order supplies, etc.**
* **Student transportation**
* **Staff transportation**
* **Evaluation and updates before**
* **Final production**

**BUDGET:***(You may create your budget in a spreadsheet and attach it as a separate document when you submit your project coversheet and Justification for Use of Financial Assistance.)*

Please see attached.