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FURSCA End of Summer Report

Unpacking Arrowheads: Teaching Michigan's Indigenous History

This summer, my project aimed to increase access to Michigan's Indigenous history through the lens of archaeological artifacts, particularly arrowheads. Drawing on materials from the Albion College Anthropology Department which were excavated locally or donated over the years, I sought to build a bridge between archaeology and public education. Inspired by my anthropology coursework and my passion for teaching, I designed a project that uses 3D-printed replicas of projectile points which were then integrated into interactive, standards-aligned lesson plans for elementary and middle school students. The overarching goal was to address the lack of accessible Native American history resources in Michigan classrooms by developing engaging and adaptable educational resources.

Over the course of six weeks, I successfully met the three core objectives of my project: 3D modeling and printing arrowheads, developing two interactive lesson plans for grades 3–6, and creating an outreach kit for classroom or nature center use. With the support of Albion College's Innovation Lab, I scanned and printed replicas of various arrowheads, producing digital files and physical models suitable for educational settings. Each print took between 2 and 10 hours, and through hands-on work and training, I became proficient in photogrammetry tools and Ultimaker 3D printers. The lesson plans I created align with the Michigan K–12 Social Studies Standards and incorporate guided identification activities and artifact-based inquiry to foster both cultural understanding and archaeological literacy. These lessons will be uploaded in

the fall to Teachers Pay Teachers for free public access and are linked via QR codes included in the nature center kits. To extend the reach of the project, I assembled a prototype educational kit for the Whitehouse Nature Center. Designed in a portable “toolbox” format, each kit includes a set of 3D-printed artifacts, printed materials, instructional guides, and digital access links. The kit is adaptable for different age levels and learning environments and will be used in future programming at the Nature Center. While I encountered challenges related to scanning accuracy and adapting to software workflows, these obstacles offered valuable opportunities to develop problem-solving skills and technical fluency. I was unfortunately unable to finish the 3D printing portion of my project due to technical errors but I plan to finish that portion of the project in the fall on my own time.

This project has laid a strong foundation for my future as both a social studies educator and a student of anthropology. By merging archaeological preservation with curriculum development, I discovered a powerful way to make history tangible, local, and engaging for students. I plan to present this work at the 2026 Elkin R. Isaac Student Research Symposium and potentially in other educational venues. Engaging with Indigenous history in such a hands-on and meaningful way made this summer deeply impactful. The project reinforced my belief that education should be a tool for justice and inclusion, especially when it brings historically underrepresented subjects to light.