NEIL DEGRASSE TYSON AND THE HAYDEN PLANETARIUM

First Name: _____ Last Name: _____

Date: _____ Class: _____

AP-level interdisciplinary enrichment | Five-day Research Simulation Task

HOW DO NEIL DEGRASSE TYSON AND THE HAYDEN PLANETARIUM CONNECT SCIENTIFIC INQUIRY WITH PUBLIC UNDERSTANDING?

Explore a scientist’s educational path, the history of a public science institution, data visualization, and the reasoning behind scientific classification. Readings are original source-based instructional syntheses, not direct quotations.

NJSLS Social Studies: 6.3.8.CivicsPI.4, investigate an organization’s role in people’s lives and share findings through a class science-access exhibit. NJSLS ELA: RI.CR.6.1 and RI.CI.6.2, evidence and central idea. CCSS/CCLS: RST.6 to 8.1 and WHST.6 to 8.2; advanced connections RST.11 to 12.1 and WHST.11 to 12.2.

Amistad connection: Study a Black astrophysicist’s contribution to scientific knowledge and public education. Interdisciplinary connections: institutional history, science, mathematics, visual communication, and informational writing.

AP-level version uses advanced reasoning and independent research. It is enrichment, not an official College Board course or AP examination preparation product.

Day 1 | Source A: From curiosity to a scientific career

Objective: Explain how curiosity, study, and institutional access connect in Tyson’s career.

Do Now

Describe a place or experience that made you ask a scientific question.

Read and annotate

Neil deGrasse Tyson’s interest in astronomy began before he held a professional title. In an American Museum of Natural History interview, he recalled first visiting the Hayden Planetarium at age nine. The projected sky contained far more stars than he was accustomed to seeing from the Bronx. That difference led him to question how the sky he knew related to the sky displayed inside the dome. At eleven, he took a course there and recognized that understanding space required mathematics and physics. [A1]

Tyson attended the Bronx High School of Science. His educational path included physics at Harvard, a master’s degree in astronomy at the University of Texas at Austin, and doctoral study in astrophysics at Columbia. The Museum’s course-author biography dates his appointment as planetarium director to 1996. His professional profile also describes public communication through books, television, and StarTalk, including his work hosting Cosmos: A SpaceTime Odyssey. [A2, A3]

The sequence matters: a moment of curiosity was followed by study, training, and work. Curiosity alone does not explain a professional career, but the account shows how a public learning institution can introduce a child to questions that continue into adulthood. In this lesson, scientific inquiry means developing questions, examining evidence, and using reasoning to explain observations. A science communicator helps audiences engage with that process.