How Museums, Teacher Educators, and Schools Innovate and Collaborate to Learn and Teach Geosciences to Everyone

COMO MUSEUS, PROGRAMAS PARA EDUCADORES E ESCOLAS FAZEM INOVAÇÕES E COLABORAM PARA APRENDER E ENSINAR GEOSCIÊNCIAS A TODOS
PURPOSE: INTRODUCING MUSEUMS AS SITES FOR PRE-SERVICE TEACHER EDUCATION & PREPARATION
What is the AMNH-MAT program?

O que é o programa AMNH-MAT?

- Enrolls ~ 15 students per year in only museum-based urban teacher residency (UTR) program in the world
  - Degree in a field of geosciences, high GPA, strong references, passion for teaching, learning, and Earth Science
  - 4 year commitment to teaching in high-needs schools in NYS

- 15 month, 36 credit Masters in Teaching Residency Program
  - Masters of Arts in Teaching Earth Science, grades 7-12

- 2 years of post-program professional support (“Induction”)
### Program Design

<table>
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<tr>
<th>1st Summer</th>
<th>Fall</th>
<th>Spring</th>
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<th>Induction (post-graduation)</th>
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<tr>
<td>Museum Teaching Residency</td>
<td>School Residency</td>
<td>School Residency</td>
<td>Science Practicum Residency</td>
<td>Classroom Observations</td>
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<td>Courses in Science and Pedagogy</td>
<td>Induction Orientation</td>
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<td>Co-Teaching with Mentors, Academic Advising, e-Portfolio</td>
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<td>Mentoring on-site, in schools, online</td>
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Summer 1: Informal Learning, Teaching, & Researching at the Museum

Verão 1: Aprendizagem informal em Museus
Partner Residency Schools

Academic Residencies

Residências Acadêmicas

Midwood High School

Roosevelt High School

Bronx Early College Academy

Hunter’s Point Community Middle School
Museum Science Investigations

Investigações Científicas do Museu
Summer 2: Research Practicum

Verão 2: Estágio em Pesquisa
Summer 2: Research Practicum
Summer 2: Research Practicum

Summary: Residents were able to...

- Construct a classification scheme for meteorites based on available literature.
- Apply this classification scheme to four unclassified meteorite samples from the AMNH EPS collection.
- Construct strong evidence for the classification of said meteorite samples to provide a foundation for future research.

Meteoric Bulletin Database

Titles:

- AD-D7-090
- AD-D7-093
- AD-D8-045, Jones
- AD-D8-049, VanAllene

Verão 2: Estágio em Pesquisa
Induction
Conclusions and Applications

Conclusões e Aplicação

• 7th year of program
  • 89% graduation rate
  • 100% success rate for graduates receiving NYS teaching certification
  • 100% employment rate post-graduation
  • *Course efficacy rated high*

• ~8,400 NYS students are taught by graduates
  • 46% of graduates are working in Brooklyn or the Bronx, districts serving most economically disadvantaged in NYS and the US
  • Achievement is equal or greater
Thank you! Obrigada!

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QUESTIONS?

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