



MONTCLAIR KIMBERLEY ACADEMY

STEM+ Explorers Summer Teacher: Fabrication

Position Type: Part-Time, 1–4 week position

Program Dates: July 6 – July 31, 2026

Orientation: June 18, 2026 (9 AM – 3 PM)

Location: Inquiry & Innovation Center, MKA Upper School Campus, Montclair, NJ

Position Summary

Montclair Kimberley Academy (MKA), an innovative PK–12 independent day school with a strong national reputation, seeks enthusiastic teachers to design and lead engaging summer programming for middle school students. The **STEM+ Explorers Summer Program** is a hands-on enrichment experience that encourages creativity, curiosity, and problem-solving through active learning.

This role focuses on teaching the **Fabrication** strand, where students learn how to design, build, and improve physical projects using a variety of tools, materials, and technologies. Students will develop practical skills in measurement, construction, design, and creative problem-solving while working through hands-on building challenges each week.

Course Overview: Fabrication

Week 1: Modular Construction

Students explore building and measurement concepts using construction materials such as LEGO, K'Nex, straw connectors, and other scaffolded building systems.

Week 2: Wood and Metal Construction

Students learn to create simple engineering drawings and use hand and power tools to build projects from wood and metal.



MONTCLAIR KIMBERLEY ACADEMY

Week 3: 3D Printing

Students use Tinkercad to design three-dimensional objects on the computer, then print, test, and improve their creations using 3D printers.

Week 4: Laser Cutting

Students design and create precise projects using laser cutting technology to shape and modify a variety of materials.

Responsibilities

- Design the Fabrication curriculum in collaboration with STEM+ Directors during the school year.
 - Create and submit a supply and tool list (within budget) to the Director of Summer Operations by June 15, 2026.
 - Attend pre-program orientation on June 18, 2026.
 - Teach the summer schedule:
 - *Morning Lab*: 9:50–10:35 AM
 - *Fabrication Classes* (2 sections): 10:50–12:25 PM
 - *Afternoon Challenge Lab*: 1:30–3:30 PM
 - Provide engaging communications to families about daily activities and student progress.
-

Requirements

- Availability for full program dates (July 6 – July 31, 2026), including June 18 orientation.
 - Participation in planning meetings with STEM+ Directors during the school year.
 - Ability to design and deliver hands-on fabrication and maker activities for middle school students.
 - Strong organizational skills to manage tools, supplies, and lab safety.
 - Excellent written and verbal communication skills.
 - Collaborative mindset and flexibility in a dynamic summer program setting.
-

Qualifications



MONTCLAIR KIMBERLEY ACADEMY

Required

- Bachelor's degree in Science, Engineering, Education, or related field.
- Prior teaching experience with middle school students (classroom, enrichment, or summer program).
- Experience with hands-on fabrication, makerspace tools, or digital design platforms.

Preferred

- Advanced degree in STEM, Education, or related field.
 - Experience designing curriculum or project-based learning experiences.
 - Familiarity with 3D printing, laser cutting, woodworking, or metalworking tools.
 - CPR/First Aid certification.
 - Enthusiasm for enrichment-focused teaching that emphasizes creativity, iteration, and problem-solving.
-

Application Process

Interested candidates should submit their application via email.

Applications should include the following:

- cover letter that addresses what interests you about working at Montclair Kimberley Academy
- current curriculum vitae
- brief statement describing your teaching philosophy
- three letters of recommendation, at least one of which discusses qualities that will support your role as a teacher

Applicants should send all requested materials by email to Monica Masterson, Director of Summer Operations: mmasterson@mka.org

It is MKA's policy to provide equal employment opportunity to all qualified persons regardless of age, race, creed, color, national origin, ancestry, sex, gender identity, sexual orientation, socio-economic background, or disability not related to the requirements for being a successful employee at MKA.