



## 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 innovative and enthusiastic teachers to design and deliver engaging summer programming for middle school students. The STEM+ Explorers Summer Program offers an inspirational enrichment experience — not summer school or academic acceleration — where students deepen curiosity and creativity through hands-on learning.

This role focuses on teaching the Fabrication strand, guiding students through hands-on design and construction experiences that incorporate both analog and digital fabrication techniques. Students will design, build, test, and iterate on projects each week while learning precision, measurement, and problem-solving skills.

---

#### **Strand Overview: Fabrication**

- Week 1: Modular Construction — Explore principles of building and measurement using Legos, K'Nex, straw connectors, and scaffolded building tools from MakeDo and Canary.
- Week 2: Construction with Wood and Metal — Create accurate engineering drawings and bring them to life using precise measurements, hand tools, and power tools.
- Week 3: Additive Fabrication – 3D Printing — Use Tinkercad to model and design objects, then 3D print, evaluate, and iterate.
- Week 4: Subtractive Fabrication – Laser Cutting — Apply laser cutting techniques to modify and create precise designs from various materials.



## MONTCLAIR KIMBERLEY ACADEMY

### 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 May 1, 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

#### 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



## MONTCLAIR KIMBERLEY ACADEMY

- 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](mailto: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.*