Metro RESA STEM and/or STEAM Endorsement Pathways

STEM and STEAM share a foundation of inquiry-driven, transdisciplinary learning that prepares students to solve real-world problems. Both emphasize critical thinking, collaboration, creativity, and the authentic application of science, technology, engineering, and mathematics. **STEAM** builds on this foundation by intentionally integrating the arts to deepen understanding and expand how students explore and express solutions.

Metro RESA offers a combined **STEM/STEAM endorsement framework** and candidates may choose to focus on **STEM or STEAM** when completing their assignments. All online components, synchronous and asynchronous will be the same for all candidates. All candidates will implement an Engineering Design Challenge and write a grant. *The table below provides an overview of where assignments differ in the pathways:*

Course	STEM Endorsement	STEAM Endorsement	STEAM micro-credential *Required to hold STEM Endorsement*
1	**STEM Certified School Visit**	**STEAM Certified School Visit**	**STEAM Certified School Visit**
	Technology Integration Lesson + Reflection	**Arts & Technology Integration Lesson** *with an industry Arts Partner**	***Arts Integration Lesson*** *with an industry Arts Partner**
1 & 2	**Collaborative Conversations** – *ongoing guided conversations with building level STEM colleagues*	Arts colleagues are included within collaborative conversations	Arts colleagues are included within collaborative conversations
2	**STEM Partner Project**	**STEAM Partner Project** **Arts Integration lesson meets requirement*	**STEAM Partner Collaboration**
	STEM PBL Unit	**STEAM PBL Unit**	**STEAM PBL Unit** *Arts can be integrated into an existing PBL*
	Differentiated Assessment for PBL Unit	Arts should be included in the unit differentiated assessment	Arts should be included in the unit differentiated assessment
	Professional Resources Collection – *at least 20*	**Professional Resources Collection**: *At least 5 of 20 are STEAM resources*	**Professional Resources Collection**: *At least 5 STEAM resources*
Portfolio			**Required** (at least 2 arts disciplines implemented across lessons/units)

Cost: STEM or STEAM – total of $1050 for both courses (16 PLU's). The cost to add the STEAM micro-credential is $150 (2 PLU's)