

Appendix F: Arizona STEM Network – Exploratory Model

A Timeline for STEM Program Development

The **Exploratory Model** describes a traditional school experience with STEM-related EXTRA CURRICULAR opportunities offered to students in addition to the regular school day. These experiences may include, but are not limited to: after school clubs, summer programs, science fairs, robotics clubs, video production clubs, etc.

Model Description

- School or district has defined STEM as a priority
- STEM programs are traditionally "stand alone" programs that are conducted outside the traditional school day
- Programs are assigned to staff as additional duties
- Programs are optional
- Includes a rudimentary level of family engagement and outreach programs (i.e. math and science family nights)

Roadmap | How to Guide | Timeline

One to six months prior to implementation:

- Secure administrative permission to host a club/program
- Identify Club/ Program leader
- Identify specific program content/objectives/activities to be offered
- Plan an extensive professional development program for program teachers and support personnel that includes content and pedagogy in project-based instruction and STEM implementation
- Establish budget* and program time line
- Establish targeted participants (primary, intermediate, K-6), and the number of participants the club/program can serve based on budget, facilities and number of projected staff
- Establish a location (classroom, lab, after school room, cafeteria)
- Plan for one field trip/business connection (can include having a guest speaker(s). Include requests for transportation to and from, if necessary)
- Plan for one family engagement event
- Design a registration form/permission slip for participants. Include all parent permissions/contact/ and emergency information.

One month prior to implementation:

- Advertise: club/program information, dates, targeted audience, fees (if applicable), where program will be offered (location), objectives and outcomes
- Open registration for participants
- Depending on number of registered participants, determine if additional support staff will be necessary, and secure support staff
- Order all materials and supplies for projected registration numbers.
- Confirm dates/ agendas for field trip and family connection events including transportation if necessary.

One week prior to implementation:

- Confirm registration roster
- Prepare location logistics, materials, and supplies (delivery and storage)
- Confirm objectives and program agenda. Confirm duration of planned instructional time and activities.
- Confirm transportation logistics if you are including a field trip
- If using any technology in the program, make sure connections are established and presentation materials are working (computers, projectors, Skype, simulations, etc.)

Day of Program:

- Prepare and stage learning areas and activity centers, including technology
- Check in participants
- Assign groups/supervisory personnel
- Go over agenda/timeline and goals with group
- Have FUN!