

Proposal for STEM Audit

Abstract:

The STEM audit, conducted by the Putnam Northern Westchester BOCES, will be composed of the following components, each discussed in more detail below:

1. Initial district-wide survey
2. Classroom visitations at elementary, middle, and high school level
3. Facilitated conversation at the elementary, middle, and high school level
4. Analysis of student work and selected curriculum artifacts using benchmarks and STEM rubrics
5. Report writing and recommendations.

The audit will begin in the late winter/early spring and continue through the end of the 2015-2016 school year, with a report and recommendations delivered by the second week of July.

In the following component breakdown, each category of service includes dates the service would take place, based on Science Consultant's availability.

1. Survey:

An online survey will be designed and offered to all district educators who teach/lead science (elementary teachers and middle/high school science teachers as well as district administrators). This survey will provide data to shape the remainder of the audit.

Timing anticipated: Mid-February through Early March

Days of service: 2 days of Science Consultant; this will include one day to design and distribute the survey as well as one day to analyze the results of the survey and set additional audit priorities.

Dates of service: January 28th and March 8th

2. Classroom Visitations:

A schedule of visitations will be set up to observe the practice of both educators and students at the elementary, middle, and high school level. Each school will have a visitation period where two classrooms will be visited.

Timing anticipated: Early March through End of May

Days of service: 3 days of Science Consultant; this includes one day to visit elementary buildings [roughly two hours in each building], one half day to visit MS and HS [roughly two hours in each building], and one and a half days to organize and analyze the collected data.

Dates of service: March 18th, April 1st, April 28th, April 29th, May 2nd (District would determine which of these days was the best for the visitations).

3. Facilitated Conversations

A two-hour facilitated conversation will be held with a selected group of stakeholders at each level (elementary, middle, and high school). Stakeholder groups will be determined by the district, but should include teachers, administrators, students, parents, and organization/business leaders, where applicable.

Timing anticipated: Early March through End of May

Days of service: 3 days, two of Science Consultant one of Fred Ende; this includes one day of Science Consultant and Fred Ende to lead the facilitated conversations at each level [roughly two hours each], and one day of Science Consultant to analyze the results and data collected.

Dates of service: March 18th, April 1st, April 28th, April 29th, May 2nd (District would determine which of these days was the best for the facilitated conversations).

4. Student Work/Curriculum Review

Sample lesson plans/artifacts and accompanying student work will be analyzed using benchmarks and STEM rubrics. District will provide 2 - 3 samples per grade band (K-5, 6-8, 9-12) for review; these samples can be provided during the visitations or the facilitated conversations.

Timing anticipated: Early March through Early June

Days of Service: 1 day of Science Consultant; this includes analysis of the plans/artifacts and student work based on science benchmarking tools (for example, the EQuIP rubric) or if no tool applies, quantitative and qualitative data collection based on the content/design of the submissions.

Date of service: June 7th

5. Reporting

A final report will be created that contains a summary of findings and recommendations for next steps.

Timing anticipated: June – early July

Days of Service: 4 days, three of Science Consultant, one of Fred Ende; this includes a day of audit summary and data comparison for Science Consultant, two days of report writing for Science Consultant, and one day of editing and report finalization for Fred Ende.

Dates of service: June 20th, 21st, 23rd, and July 5th

Budget:

Science Consultant: 11 days @ \$_____/day =

Fred Ende: 2 days @ \$_____/day =

Total: