

**MEDFORD HIGH SCHOOL
COURSE SYLLABUS**

Department:	Science
Course Title:	Science Fair Projects
Level and/or Grade:	Standard
Prerequisite:	none

Course Description:

The Science Fair Projects course involves the completion of independent projects that develop and that refine student 21st Century Learning skills using content-knowledge typically found the Sciences, Technology and Engineering standards.

Learning Standards: Students will be able to.....

Path I: Design and carry out an independent scientific investigation:

- Ask a scientific question.
- Perform background research.
- Write a project proposal.
- Carry out an experiment.
- Record data.
- Analyze the data.
- Report the results to a group of peers or experts.

Path II: Design and construct a prototype to solve a problem using the Engineering Design Process:

- Identify problem or identify a need.
- Research the problem or need.
- Brainstorm possible solutions.
- Select the best possible solution.
- Construct a prototype
- Test and evaluate the solution.
- Communicate the solution.
- Redesign.

Course Alignment with High School 21ST Century Learning Expectations:

Students will...

- Become self-directed learners.
- Communicate effectively.
- Apply problem-solving skills and critical and creative thinking.
- Use technology appropriately as a tool for learning, collaboration, presentation, research, and design.
- Act with integrity, respect and responsibility toward themselves, others and the environment.
- Exhibit flexibility and adaptability.
- Collaborate in diverse groups to share knowledge, build consensus, and achieve goals.
- Practice leadership in and service to their community.
- Become contributing citizens in a global society.

Assessment:

- See attached grading rubrics.