



Envision Classroom Activity Guide: Teaching Project Management Skills

Note: This exercise is designed for high school students, but can be simplified for middle or elementary school.

*“Planning without action is futile, action without planning is fatal.”
~ Cornelius Fitchner, certified Project Management Professional (PMP)*

As instant-access to online information makes fact-memorization obsolete, and global competition for jobs drives demand for workforce-related skills, teaching “real-world readiness,” with skills such as project management, becomes a new reality of the 21st Century Curriculum.

The Demand for Project Management Skills

U.S. News & World Report identifies Project Management as #1 in their list of 7 Key Skills You Need to Get Hired Right Now. In their article, Demand for Project Managers Continues to Grow Globally, *ITpreneurs* predicts more than 1.3 million new project management roles will be created by 2020. In addition, project management skills are invaluable for handling school assignments and ultimately, the demands of everyday adult life.

Group Project – With Double the Rewards

Make your next student group project a two-parter, with Part 1 being the creation of a project management plan, and Part 2 being the project itself. If your students master project management in Part 1, the results of Part 2 are sure to improve, no matter what your assignment or subject is.

The Components of Project Management

Start by introducing your students to the elements of project management:

- Objective
- Scope
- Resources
- Responsibilities
- Action Items
- Risk Factors
- Schedule
- [Budget]



Budget is frequently an important component of real-world projects, so be sure to include it in your class discussion, even if it will not be a factor in Part 2 of their actual group assignment.

Objective – Students should be able to clearly articulate all the goals related to your assignment – both the actual, concrete deliverable(s) and the underlying learning objectives, such as “grasp the economic importance of the American Revolution” or “acquire a deeper understanding of chemical reactions in the sulphur cycle.”

Scope – The scope of a project is tied to the objectives, but includes more details on "what's involved?" Students should list elements of the project such as length, delivery format, level of detail, and any other specific requirements you've assigned.

Resources – Some projects may require no resources outside of time, manpower, paper and pencils. Others may require computers or smartphones, library books, supplies, DVDs, parental assistance, transportation, etc. Students should list all required resources to complete the Objectives, and the sources they'll use for acquiring them. Acquiring resources should then be built into the Schedule, as one or more of the project steps.

Responsibilities – Since the students are working as a team, they should be able to clearly define which team members are responsible for which parts of the project, and all individual responsibilities should be built into the Schedule.

Action Items – Action items are all the “to-do’s” that must be accomplished to complete the project – both team and individual assignments. Each team member should list their individual action items and then review them with their group, to ensure that all angles and responsibilities are covered.

Risk Factors – Most projects can be put at risk with unforeseen circumstances. What if a group member gets sick and misses several days of school? What if the research book required is already checked out of the library? A good project manager is equipped with a back-up plan, which should be outlined in the Risk Factors section. Other Risk Factors could include things like: time or schedule conflicts, bad weather, lack of full group participation, etc.

Schedule – The Schedule, sometimes referred to in the business world as a Work Plan, is the primary component of the project plan, incorporating almost all the other components. Once it is completed, it is an excellent guide for executing the project and achieving project success. Scheduling starts with the due date, and works backwards from there. Students must break the project down into steps, and determine individual due dates for each step, including suitable timeframes for group meetings, acquiring supplies, rough drafts, final drafts, etc. The Schedule should build in time for the group to carefully review their work, proof-read all deliverables, and make edits or improvements, as necessary. Elements of the Responsibilities, Resources and Risk Factor components should be incorporated into the



Schedule. It should show which team member will handle each step, when supplies will be acquired, and how the group will handle issues if they arise.

An Excel spreadsheet is a common vehicle on which to build the Schedule. The spreadsheet can be color-coded with green, yellow and red (or any coding system the students pick), to show the status of the steps, as they're in-the-works, or completed.

Budget – If no financial resources are required to complete your group assignment, you can plan a separate budgeting exercise for your students. Budgeting is straight-forward: a project manager must calculate all costs associated with the project and ensure that sufficient funds are available, identifying the source of funds, as well as the risk factors associated with going over budget.

Completing the Project Planning Exercise

We recommend that you assign due dates for each of the individual plan components listed above, so you can help your students identify pieces of the plan they may have missed or not thought through carefully enough.

Students can work collectively as a group to pull together each component of the project plan, or they can select specific members to be responsible for specific components. Even if they choose the latter approach, group collaboration and agreement will be required for many aspects of the plan.

Once the students have turned in a complete project Schedule, and it has met your approval, Part 1 of the group assignment is complete. They can then put this project plan to work, as they execute the actual assignment (Part 2).