

Schedule for Managing Group Tasks for the Project

Name _____

In order for your group to become an effective research and development team, you must each pledge to do a fair share of the work and assume responsibility for working cooperatively with each of the other members of your team. In some cases your team must share resources fairly with other groups in the class who are also working on the same project.

Each day you should begin and end with a team meeting to discuss progress, report problems, make joint decisions, and confirm the daily duty schedule. Then you should research the topics and/or work on the design tasks assigned to your scientist's role. The work schedule and duty rotation chart and duty descriptions below will provide a system in which this can be done fairly and everyone will get to experience working with each of the other scientists on different phases of the project and all necessary activities can be accomplished.

When your team meets for the first time you will choose the scientific roles you will assume for the project. You may have to use your communication and negotiating skills as problem solvers to determine who would be best in each role according to individual interests and talents. You will be responsible for organizing yourselves to make sure that all assignments are completed satisfactorily on schedule with an equitable distribution of duties. Each scientist will maintain an electronic work journal containing a log of what he/she does each day, research notes on the project, and reflections about questions posed in the project assignments. These journals may be shared on a secure web site.

The work journals will be monitored daily by the teacher and will be assessed by the student and the teacher using the [Rubric for Work Journals](#). Each student will also privately evaluate the team's work ethic and group relationship dynamics using the [Rubric for Group Dynamics](#) which will be taken into consideration when the teacher assesses the team's performance using the same rubric.

Scientist Work Session/ Duty Rotation Chart:

(Activity Periods and Work Sessions are about 30 - 40 min. in length)

Whole Class Activity	Each team meets for first time and completes the Visual Ranking activity as a group with the whole class, then discusses communities and what different groups in a community want and what they really need.		
Team Organizational Meeting	Each team meets to decide on who will do each scientist's role and to decide on some basic factors that they all wish to include in the community after doing the Visual Ranking activity.		
Daily Tasks during Scientist Work Sessions	Project/Product Designers /Creators	Information Researchers (may be jigsawed with other groups)	Group Monitor/Task Coordinator
Scientist Work Session 1	Earth Scientist & Social Scientist	Engineer & Physical Scientist	Life Scientist
Scientist Work Session 2	Social Scientist & Physical Scientist	Earth Scientist & Life Scientist	Engineer
Scientist Work Session 3	Physical Scientist & Life Scientist	Social Scientist & Engineer	Earth Scientist
Whole Class Activity	Each team will do the Seeing Reason activity as a group with the class, discuss individual rights vs. the common good, and then confer with the team to focus on the government organization in their community. Each student will write a Letter to a Public Official advocating a law his/her scientist wishes to have enacted for the good of the community.		
Scientist Work Session 4	Life Scientist & Engineer	Physical Scientist & Earth Scientist	Social Scientist
Scientist Work Session 5	Engineer & Earth Scientist	Life Scientist & Social Scientist	Physical Scientist

Whole Class Activity	Each team will do the Seeing Reason activity as a group with the whole class, do a follow-up exercise, " Stand Up for Your Beliefs ", to debate the pros and cons of nuclear energy with the class, and then make a team decision about what energy source(s) will be used in the community you are designing and write about it in your journal.		
Scientist Work Session 6	Earth Scientist & Life Scientist	Social Scientist & Physical Scientist	Engineer
Scientist Work Session 7	Social Scientist & Engineer	Physical Scientist & Life Scientist	Earth Scientist
Scientist Work Session 8	Physical Scientist & Earth Scientist	Life Scientist & Engineer	Social Scientist
Scientist Work Session 9	Life Scientist & Social Scientist	Engineer & Earth Scientist	Physical Scientist
Scientist Work Session 10	Engineer & Physical Scientist	Earth Scientist & Social Scientist	Life Scientist
Team Work Session 11	Team will work cooperatively to complete all aspects of the project and plan and practice the class presentation		
Team Work Session 12	Team will work cooperatively to complete all aspects of the project and plan and practice the class presentation		
Team Work Session 13 & Self Assessment	Team will finalize all aspects of the project and the class presentation All teams will self assess their journals using the Rubric for Work Journals and individuals will privately assess their team using the Rubric for Group Dynamics ,		
Team Presentations 1	Two teams will present their project designs and other teams will peer review them using Rubric for Oral Presentation and Rubric for Model Design Project .		
Team Presentations 2	Two teams will present their project designs and other teams will peer review them using Rubric for Oral Presentation and Rubric for Model Design Project .		
Team Presentations 3	Rest of teams will present their project designs and other teams will peer review them using Rubric for Oral Presentation and Rubric for Model Design Project .		
Final Reflections	Everyone will complete their Final Reflection		

Duty Descriptions

* **Project/Product Designers/Creators:** Work on coordinating information and designing products/presentations according to directions in project assignment in a timely manner. Use computers and other materials and tools as needed for creating project/presentation components.

* **Internet Researchers:** Check for electronic communications and/or updated directions from the teacher, print materials as needed, look up answers to questions, search for information about topics. ***If jigsaw groups are used,*** then the researchers share resources and conduct research with people from other groups assigned to the same topic and then take information back to main group. For this reason, the same scientists from each group are assigned to this job on the same days.

* **Group Monitor/Task Coordinator:** Check to make sure the members of the group are on task, quiet, and following safe practices. Check on equipment, supplies, worksheets for labs and projects. May work with any other members of group wherever needed. ***Report to teacher about absentees and any problems the group is having.***

NOTE: Jigsaw groups are temporary groups in which "experts" from each team meet to research one aspect of the project using shared resources. Each team has five "experts" represented by the five scientists on the team. After conducting research together, these "experts" return to their teams to share information. Each "expert" is responsible for teaching the others all about the topic that he/she researched until each member of the team has obtained the "whole picture". The team may then utilize the information they have learned to decide on important aspects of the project assignment such as written reports, media or oral presentations, model designs, or other products. This technique is

sometimes called the "jigsaw technique" and you can learn more about it in [Jigsaw in 10 Easy Steps](http://www.jigsaw.org/steps.htm) - <http://www.jigsaw.org/steps.htm>.

Work Journal Checklist for Daily Entries

1. Date
2. Job Details
 - a. Task for Day
 - b. Progress Made
 - c. Next Step
3. Notes from Research or Class Discussion
4. Reflection Responses to Guiding Questions or Class Prompts

Question Checklist for Each Scientist for journal notes and reflections (with final project task assignments)

Earth Scientists – will make map & help with community design model

- ◇ Where is the most advantageous geographic location for your settlement? – *earth scientists*
- ◇ How will you dispose of and/or recycle your waste and garbage? – *earth scientists*
- ◇ How will you obtain and sustain sufficient clean air and water? – *earth scientists*
- ◇ How will various land use areas including natural wilderness areas be arranged in your community? – *earth scientists*
- ◇ Other - _____

Social Scientists – will create constitution or charter with sample laws

- ◇ Who will you try to recruit as your first citizens and why? – *social scientists*
- ◇ What type of government will you have and who will make the laws? – *social scientists*
- ◇ What jobs will be available and how will your workers be trained and paid? – *social scientists*
- ◇ What artifacts or customs, if any, will you bring from your previous communities? – *social scientists*
- ◇ How will you raise children and educate them for citizenship? – *social scientists*
- ◇ Other - _____

Physical Scientists – will create diagram of energy generator and examples of vehicles and communication technology

- ◇ What energy source(s) will you use to generate electricity? – *physical scientists*
- ◇ What technologies will you develop to meet communication needs? – *physical scientists*
- ◇ What types of vehicles will you use to move about and what fuel will they use? – *physical scientists*
- ◇ What will factories in your community manufacture, and what machinery will they need? – *physical scientists*
- ◇ Other - _____

Engineers – will make diagram or model of typical home & help with community design model

- ◇ What design and construction techniques will you use for buildings in your community? – *engineers*
- ◇ How will buildings be heated and/or cooled? – *engineers*
- ◇ What materials would be best to use for roads, vehicles, buildings, and furniture? – *engineers*
- ◇ What kinds of transportation, communication, and sanitation system infrastructure will you need to build? – *engineers*
- ◇ Other - _____

Life Scientists – will plan skit or video showing typical lifestyle in the community

- ◇ What sort of nutritious foods will people eat and from where will they be supplied? – *life scientists*
- ◇ How will people get health care and medicine? – *life scientists*
- ◇ What will you do for recreation and entertainment to reduce stress? – *life scientists*
- ◇ What are some environmentally safe household cleaning products that families will use? – *life scientists*
- ◇ Will pets and other animals live in your community and how will they be cared for? – *life scientists*
- ◇ Other - _____