

## General Activity Summaries

General Activities are those exercises which are not specific to any one phase of production, but are meant to span the course of the entire project. Many are structures or practices that once established can be returned to at various and multiple stages of the project. These activities are appropriate for projects in any medium.

### Peer Design Reviews

Design reviews throughout the project give students the chance to learn from each other and learn to critique constructively. Design reviews are short structured events, in which a group discusses the work they have done so far, and their plans to complete the project. There peers critique the plan and offer suggestions. Students can learn a lot from each other.

### Across-Group Help

When groups are working on their projects, it's always good to have strategies for the groups to share questions with each other. Students learn from each other, generate new ideas, and get important feedback from other groups.

### Design/Idea Books

The design/idea book is a notebook where each student will record his/her ideas, plans, designs, revisions, problems, solutions, and questions about the project. The book will help both students and teachers plan, keep track of, and assess the progress of the project, and also provide a record for the student of what worked, what didn't work, and some ideas for the future. Design/idea books can be used alongside Project Journals which are similar in format but focus more on what students have learned, the process of working in groups, and general reflections on the project.

### Project Journals

Journals are places for students to write down their thoughts, comments, and questions on the project, the process of working together, and what they have learned. The journal is designed to help students organize their reflections on the project and the production process, to document students' work and experience for self-evaluation during and at the end of the project, to provide a place for students to write questions and comments for the teacher to respond to, and to help the teacher with assessment by providing additional insights into the students' experiences. Journal entries can be prompted with specific questions posed by the teacher, loosely guided with topic suggestions, general places for student reflections, or a combination of all three. Journals can be used along with Design/Idea books which focus more on technical questions and design issues and ideas.

### Designing a Rubric

Establishing a common understanding of the assessment process and allowing students to participate in creating their own assessment standards are important components of project-based learning. Student-created rubrics emphasize student decision-making, collaborative learning, performance-based assessment, and real world connections. Rubrics can be used for planning and assessment by students and teachers throughout the project and as tools for media literacy.

### Production teams

Production teams set the stage for student direction. Production teams which work together for the duration of a long term project can provide multiple opportunities for students to collaborate with each other and play active roles in the learning and production process. Production teams can also provide unique opportunities for assessment and reflection. The goal of planning for production teams is to provide adequate structure for students to function independently.

### Student Led Discussions

Student led discussions will be an important aspect of group projects. Whether practicing informal collaboration or more formal real world type meetings, students will benefit from taking time early on to develop strategies or guidelines for good student led discussions. By discussing, developing, and reflecting on student roles, ground rules, and other aspects of group discussions, students can enhance the efficiency of student led discussions. An established structure for such discussions will also support students' willingness to risk expressing ideas and increase their involvement with the process.

# 1. Peer Design Review

## Activity Summary:

Design reviews, when properly scheduled, allow students the time and ability to plan and discuss what tasks have been accomplished to that point. Peer groups are also able to offer alternative ideas and spur their groups toward satisfactory completion of the overall project. Because students enjoy the opportunity to talk, this allows them the chance to engage one another in what needs to be done, and can be done.

## Materials:

The Design Review Comment Form

## What To Do:

1. Group-to-group reviews: Two groups are paired, and each group critiques the other group's work.
2. Student-to-student: Each student in a group is paired with a student from the second group. Once completed, the individuals are able to share what they have learned and what steps they will take to implement the remainder of the project. This system also builds in a degree of accountability.
3. Whole Class: The groups present their work to this point to the rest of the class. This format generally takes the most class time, but it helps the students practice for oral presentations to large groups.

## Notes to Teachers:

1. Because students generally are not used to making presentations to each other, the more times they have to present to the entire class, the better it will be for them on their final presentations. Making fair evaluations comes with practice as well, so these need to be scheduled and planned for, too.
2. Reviews should be about 10 minutes long.
3. Model the type of comments you want to be made. When students are trained in what to say, unconstructive criticism is kept to a minimum.
4. Students should also focus their comments toward what you have written and trained them for when evaluations take place. This also limits unconstructive comments.

## 2. Across-Group Help

### Activity Summary:

Cooperative learning takes place best when students are free to share their ideas with one another. This allows them to reach out to the other groups for times when they become stumped, and it will also encourage them to build a spirit of unity when they see that they are working together for a common goal.

### Materials:

1. Research Notes
2. Project up to this point

### What To Do:

1. Develop a large community bulletin board where students can generate questions and get responses. This will promote a cooperative spirit in the students working together. Consider also using what is posted in times with the entire class being involved in a discussion of their projects.
2. Information roundtables with the class are also effective ways to generate questions and answers. Students can use their Journals based upon what they have written in them; allow each group to ask 2-3 questions to solicit feedback from the rest of the class.
3. If you have computers in your room, and you regularly use them, you can have students post questions electronically either by email, in a database. Instant Messaging (IM) while students are away from the campus (if addresses are shared) can also be a good way to work together, as well as swapping computer generated files.

### Notes to Teachers:

1. For assessment and accountability purposes, ask each group to record at least one thing they learned from the sharing session and one thing they contributed.
2. This process is generally more effective if it is part of the classroom structure; for example, scheduled as something that the students know will happen every Friday, or at the end of every other period, etc.
3. Students may be encouraged to follow-through on their own ideas to develop forms for sharing, such as developing in-class email programs, designing and furnishing meeting spaces, and other systems for sharing.

### 3. Design/Idea Book

#### Activity Summary:

The design/idea book is a notebook where each student will record his/her ideas, plans, designs, revisions, problems, solutions, and questions about the project. The book will help both students and teachers plan, keep track of, and assess the progress of the project, and will also provide a record for the student of what worked, what didn't work, and some ideas for the future. Design/idea books can be used alongside Project Journals which are similar in format but focus more on what students have learned, the process of working in groups, and general reflections on the project.

#### Materials:

1. Writing and marking instruments – pencils, pens, and highlighters
2. Basic notebooks -- such as 3-ring notebooks (which allow students to easily add handouts, computer printouts, and other documents to their book), spiral notebooks, simple folders, teacher created notebook template.
3. Design tools -- such as compass, rulers, crayons or coloring pencils, scissors, etc.

#### What To Do:

1. Teachers should share examples of design/idea books with the class at the beginning of the project. Samples of real design notebooks used by professionals will provide concrete examples and creative possibilities for students. Teachers may also want to create and contribute to a design/idea book of their own during the course of the project.
2. Teachers should discuss how design/idea books can and are used by professionals, and how they can be used by one another in the course of their work. Below are some guidelines for students using design/idea books. Teachers should adapt these to fit the needs of the project and the class.
3. Prepare for class, computer work time, discussions, and brainstorming sessions by writing down your ideas, plans, designs, questions, and concerns.
4. Take notes of new ideas and interesting suggestions proposed by classmates or questions that arise that you may want to pursue later.
5. Include in your notebook conceptual maps, sketches, drawings, measurements, calculations, storyboards, and design ideas -- even if you do not use them in your project.
6. Keep only that information (drafts, revisions, ideas, plans, etc.) that is directly related to your project. You may want to consider showing how students should set up their notebooks and state that these are to be used only for that purpose.
7. Use a highlighter to mark those sections that you want to especially remember for future reference or discussion with classmates, teachers, and mentors.
8. Keep your notebook with you in an easily accessible location at all times so you can jot down ideas, sketches, etc. as they arise. (This is a common practice among professional designers.)

#### Notes to Teachers:

1. As an assessment tool, notebook collections and reviews may help teachers gain insights into individual student learning and group processes not evident in the finished product and not available through classroom observations alone. By comparing early and late

entries, teachers can chart a student's progress. Of particular interest may be the changes in students' representations of their project from rough or abstract ideas to more concrete designs. Teachers may also use frequent notebook reviews to provide early and on-going design and implementation feedback to students.

2. Periodic collection of the notebooks can also provide valuable opportunities for teachers to develop more complex relationships with their students by responding to individual questions and concerns written in the books.

## 4. Journals

### Activity Summary:

Journals are to be used by the students for writing down the learning process, questions, comments, ideas, answers and feedback from other students in the learning experience. It is intended to be an orderly process, and the Journal should be checked regularly for neatness and organization. It is also intended help them reflect upon what they have completed, what is ongoing, and to also receive feedback from the teacher on various aspects. Journals can be used with Design/Idea books; this focuses on the more detailed aspects, and those areas related to design.

### Materials:

1. Paper and pencil or pen
2. Basic notebooks can be used, such as a 3-ring notebook, spiral notebook, or simple folder. Or students could create their own notebooks or use a template created by the teacher.

### What To Do:

1. What do you want the Journal to be used for? Below are some questions for teacher planning:
  - a. What kind of information do you want to capture in the journals? What kinds of prompts will help you and the students capture this information?
  - b. How will the journals be used during assessment? What kinds of questions will help you gather the necessary material?
  - c. What are some specific questions you would like answers to?
  - d. Will parents, mentors, or other reviewers be asked to respond to specific journal entries?
2. Suggest guidelines for journal entries and provide examples. Select examples of journals or journal entries (old project journals, reflections, memoirs, etc. real or fictitious) for the class to read and discuss. It may also be helpful for the teacher to keep a journal during the project.
3. Integrate use of the journal into the project activities by reminding or instructing students to make entries at reflection-relevant moments (after or before discussions, significant activities, meetings with teachers or group members, presentations, etc.) or by providing specific questions for students to respond to. Arrange discussions with individual students, groups, or the whole class based on specific journal entries.
4. Create a manageable schedule for collecting and reading journals and responding to relevant entries. It may help to ask students to mark in a unique way those entries that they especially want the teacher to see and/or respond to.

### Notes to Teachers:

1. As an assessment tool, journal reviews may help teachers gain insights into individual student learning and group processes not evident in the finished product and not available through classroom observations. By comparing early and late entries, teachers can chart student progress, and note the type of language that is used, the way ideas are stated, and the types of questions that are asked, etc.

2. Teachers may also use frequent journal reviews to provide early and on-going feedback to students and to get feedback on students' understanding of the project process or of a particular activity.
3. Periodic collection of the notebooks can provide valuable opportunities for teachers to develop more complex relationships with their students by responding to individual questions and concerns written in the books.

## 5. Content Maps

### Activity Summary:

This activity gives students an opportunity to reflect on what they have learned as they are going through the project. They can then represent their learning in a variety of forms, including text and graphics.

### Materials:

- Student Notebooks

### What To Do:

1. Make a Content Map yourself before the project so that students will have a better idea of what you are expecting from them.
2. On a weekly basis, have the students add the content they learned to their content maps. If you wait until the end of the unit, it's hard for students to remember what they had done.
3. Toward the end of the unit, allow time for the students to complete and polish their overall Content Map.

### Notes to Teachers:

1. The content map is an excellent document to use for assessment.
2. You may also find it can be the centerpiece of one-to-one discussions around the activity of the group.
3. The content map is also a nice thing to have around when parents visit, along with the end project, because it clearly shows the content that was learned and the problems that were solved as the unit progressed

## 6. Designing a Rubric

### Activity Summary:

Students need to know what is expected of them, and a rubric can be a link between actual work that has been presented to them, and the more theoretical aspects of what should be included. Students should be included in the decision-making process for what they will see and do; this process emphasizes collaborative learning, performance-based assessment, and "real world" connections. Don't leave students in the dark by not sharing what is expected from them; develop a rubric that clearly show what needs to be done, and how it will be assessed.

### Materials:

1. Sample rubrics
2. Media or project examples showing a range of achievement and accomplishments
3. Community bulletin board for the class

### What To Do:

1. Familiarize students with the concept of a rubric. Begin by posting or distributing copies of rubrics for students to read. Allow students time to read through and view the media and rubric samples.
2. In groups, assess the media samples or projects using the rubrics. Ask the students in each group to evaluate the samples, come to a decision on an appropriate score, and be prepared to explain their assessment to the class. Questions for discussion:
  - a. How difficult was it for the group members to reach a consensus? What areas, if any, did group members disagree on or find confusing? How did they resolve the problems they encountered?
  - b. What would have to be changed in each project or media sample for it to receive a higher or a lower score?
  - c. How could the rubric being used be changed to better fit the projects or media samples being assessed?
3. As a class, teachers and students prepare a rubric that they will use for their upcoming projects. Teachers will have assessment criteria, constraints, and values they would like represented in the rubric which they should discuss with the class. (For example, how will the projects be grounded in the curriculum? And what role do regional, state, and national standards play in the project and assessment, and how should these be reflected in the rubric?) Other questions for the teacher and the students to address while creating the rubric include:
  - a. How can the rubric incorporate or reflect the values and concerns of the school and the community?
  - b. Should there be one rubric for all projects or several variations for different types of projects or for groups with different goals?
  - c. Will the rubric be "holistic" (have a single score for the whole project) or will there be scores for different aspects of the project?
  - d. How will "collaboration" and other components of the development process be incorporated in the rubric?
  - e. How will the rubric be used (in planning, design reviews, mid-point assessments, preparing and assessing a pitch, final evaluations, etc.)? And who will be the

- assessor (teachers, mentors, parents, classmates, the students working on the project, etc.)?
4. As the projects get underway and students, teachers, and mentors use the rubric (for planning, design reviews, and other assessment activities), the class may want to assess how well the rubric is working. Questions for discussion:
    - a. Does each party feel comfortable using the rubric?
    - b. Are there minor changes that need to be made to the rubric to make it work better?
    - c. Are the examples given still appropriate and clear to all involved?
    - d. Do students have any other questions, suggestions, or concerns about the rubric and its use?

Variations:

1. Instead of breaking into groups, teachers may prefer to keep the class together for the whole activity, especially if working with very young students.
2. Rubrics are used in many different settings in the real world. Teachers could expand the discussion on rubrics by bringing in examples used by corporations and other professionals.

## 7. Production Teams

### Activity Summary:

Production teams set the stage for *student direction*. Production teams which work together for the duration of a long term project can provide multiple opportunities for students to collaborate with each other and play active roles in the learning and production process. Production teams can also provide unique opportunities for assessment and reflection. The goal of planning for production teams is to provide adequate structure for students to function independently.

### General Idea:

1. Planning for production teams will involve a consideration of constraints and negotiables. What will the teams be required to do and what will they be determining on their own? Generally, production teams are intended to give students opportunities to make decisions and problem solve jointly, engage in real world roles and project management, and become personally invested in the success of their production. You may wish to focus on a small number of specific goals for the production teams. In any case, the purpose and goals of working in production teams should be communicated clearly to students.
2. Planning for production teams is essentially planning the structure which your students will need to work independently. Successful production teams get students to make plans and decisions on their own and rely on each other's work. Establishing transparent goals and expectations for teams, defining roles and processes ahead of time, and early and frequent feedback will support students when they work in groups. Plan time for class discussion and instruction on how to collaborate effectively (the activity, Student Led Discussions prepares students to participate in peer discussion and decision-making).
3. Determine the size of the production group ahead of time, so that students will feel that they can have an active role in leading and helping to decide what will be needed for the group's success. Students need the opportunity to lead and share, and you may want to allow them to decide what exactly they want to do. Considerations for planning specific groups:
  - a. Will each student be able to contribute in a meaningful way to this group?
  - b. Will each student be challenged in some way?
  - c. What special tools will this particular team benefit from (e.g. a system of frequent feedback, a structured division of labor)?
4. Productions teams and how they work together gives opportunities to reflect on the work that is being done. How students work early on in the project and throughout its duration will provide accurate evaluations.

### Assessment ideas for production teams:

1. Periodic group and individual activity reports, to document all of the work that has been done in a specific time period.
2. Creation of a rubric (by the teacher or by the class) which assesses not only the final product but the *process* of production, including skills used in collaboration.
3. Documentation of ideas in design/idea notebooks for periodic review, feedback, and assessment.

4. Self assessment: students assessing themselves as a production team or individually. Reflection on group functioning and individual contributions to the group, in journals or elsewhere.
5. Peer assessment: Production teams assessing each other.
6. Design reviews within the team or which involve the teacher or whole class (see the activity Peer Design Reviews, in this section).

## 8. Student-Led Discussions

### Activity Summary:

Student-led discussions enable students to develop strategies, whether on an informal basis, or toward the more “real world” meetings. It is important to understand that these should not be overlooked or underestimated. The students will have the opportunity to decide the rules to implement, what each person will be doing, and how their group discussions are going to proceed forward. Structure must be inculcated so that students who are willing to take appropriate risks will be encouraged to do so without judgmental attitudes from the group, thereby increasing their input and contribution to the learning process.

### What To Do:

The following are suggestions and considerations for teachers and students who are planning for student led discussions.

1. Students may begin by discussing the potential benefits and potential problems of leading their own discussions. These thoughts should be recorded and can serve as guidelines as strategies are developed.
2. Appropriate group behavior should be discussed and determined. Students may want to define specific ground rules by answering some of the following questions or it may be sufficient to merely discuss them and raise awareness of the issues. Questions for students:
  - a. How do we determine the ways in which all participants can contribute to the learning process but speaking?
  - b. Will the group make decisions by voting or by consensus?
  - c. How will we stay focused
  - d. What are the elements of a good agenda and do we need to use one sometimes or all the time?
  - e. What happens if the group gets off track, and what can we do to keep this from happening?
3. Appropriate individual participation should be discussed. Questions for students:
  - a. What responsibilities do individual group members have to the group?
  - b. What is the difference between contributing effectively and dominating the discussion?
  - c. What is the best way to respond if you don't agree with someone's statement?
4. Students may want to define specific student roles or assign jobs to help the group function smoothly; this is encouraged by giving willing participants roles (such as facilitator, recorder, timekeeper, reporter, etc.) in advance. The group may need to have the important responsibilities spelled out in clear detail so that everyone will know who is doing what, and how to do it. Decide by what method the students will choose leaders for each position, with the opportunity to trade off in those duties, so that everyone will have a chance to be a leader, rather than just taking orders
5. Allow the students to have a roundtable discussion concerning what has gone smoothly and what has not. The students may want to share about how their groups are proceeding and what improvements can be made. Give students the option to decide whether they want to speak orally or write in a Journal concerning how they have been allowed to share meaningful input. Questions for students:

- a. How have I contributed positively to the group?
- b. How can I improve my future involvement in our group discussions?

Notes to Teachers:

Student led discussions allow teachers to play the role of observer and occasional facilitator. As students work in groups, teachers will have opportunities to hear the concerns and successes students express to each other. When circulating among groups, teachers should listen very closely to various aspects, whether positive or negative. Then use this verbal input to make appropriate adjustments. If there is negative feedback, use that information right then, plan future events, or make plans for productive sessions in the class. If there is positive feedback, this can also be used for future meetings so that other groups can see what is being accomplished and reinforce the efforts that are coming about from the group.

Questions for teachers:

1. What are expressions of the normal give-and-take that comes with group work?
2. What are indications that groups are engaged in successful or productive work?
3. What are indications that the teacher should step in and mediate or facilitate for the group?