Design a Project
(Allow 20 minutes to prepare.)

Discuss the following dimensions of the project, noting descriptive phrases on newsprint.

Product: What will you have when the project is finished?
Steps: What must be done? In what order? By what time?
Criteria: What makes a good product?
Learning objectives: What will the intern get out of it?
Resources: What human and other resources are available?

- Discuss how the mentor interacts with the youth on the project.
- Set out the purposes and boundaries of the project and explain what a good product is.
- Get the youth started with essential information and advice.
- Engage the youth in problem solving as problems arise.
- Assess the product and the steps that led up to it with the youth.

Visit Project Stations and Vote
(Allow 10 minutes to visit project stations: read project descriptions displayed on newsprint, ask participants for more information, and use stickers to vote.)

- The project I would like to do the most!
- What a creative way to meet your learning objectives!

Staking: Selecting and Placing Utility Poles

Description of a Project
In some professions, such as engineering, most work is organized in projects. In other fields, projects may be less common, but most people have projects to do some of the time.

Projects give interns a chance to plan, carry out, and assess a set of activities that makes use of skills and knowledge they have acquired at work and in school. Ideally they learn not only how to do the project itself but how to handle other projects in the future: planning, gathering information, following through, problem solving, and teamwork.

Mentors have told us that one of the most important challenges they face is having too little time to spend with their interns. Although projects still require mentoring, they engage the intern in productive learning activities without constant supervision.

Project Features
- Nonroutine; different from the regular work that people do every day.
- Has a beginning, middle, and end; doesn’t continue indefinitely.
- Includes a sequence of steps, often involving gathering information and interacting with different people.
- Has a product.
Situation
(Read aloud.)

A mentor who is a “staker” describes how he helped his intern take responsibility for planning an increase in electrical loads for a new housing development.

1 We give him a lot of projects, a lot of different responsibilities, and he’s willing to learn. I just had a three-phase project. What that means is we had a particular road that right now has a single-phase current running down it, and there’s a lot of development along this road so the electrical load needs to be increased. So we have had to build a three-phase line instead of a single-phase, upgrading it to provide for the further development of this community.

2 And Jay was right there with me during this project, which is a very large, intensive project. We staked it together. We designed it together. And that’s a huge, huge task and a big responsibility.

3 We are still in the old school. We do everything with pencil and paper and compasses and scales. Now when we get on Autocad, which we’re about to get, it will be done by computer. We taught him how to do it on paper, and it can be very confusing to work up this drawing on paper. But we’ve taught him small. Now he’s worked his way up to big. And this particular project, he’s done the assembly sheet, which means that he’s calculated what we’re gonna be retiring as far as single-phase line, calculated what we’re gonna be adding, which is three-phase line, and he gets all that together to where we can get it to the crews to go work.

4 He is not afraid to ask questions. He wants to learn. And there’s many times when he wants to know why we use a particular structure pole. There’s different structures depending on the weight of the line, the distance of the line coming to it, the angle of the pole. And he wants to know, “Well why didn’t we put this here? Why don’t we put that there?”

5 And you sit there and you explain. He’s even taken our spec book home. It gives the design of poles, what kind of pole you use in certain situations. There’s not many teenagers that would take a spec book home and memorize it. And he’ll look at it and he’ll see the design of a pole, and now we can ride down the road and he can point at a pole and say, “That right there is a BC3.” And I’ll look at him and say, “How do you know that?” “I’ve been reading the spec book,” he says. So he’s very driven. He wants to learn.

What Do You Think?
(Discuss for 5 minutes.)

- What do you think the intern would learn from this project?
- What did the mentor do to try to guarantee the intern’s success?

Brainstorm Projects
(Allow 5 minutes.)

- What kinds of projects could you do in your workplace?
- Choose a project from the brainstorm list that you would like to develop further with a group.