INSTRUCTIONS

In Part 1 of the Project Plan, you will outline your overall goals, resources, constraints, and assumptions to help you envision your final project.

Goals explain what will be achieved by the end of Future City. Setting goals will help you to determine what you want the outcome of the project to look like. Goals help you answer the question, “How do I know when I’m done?”

Once you have a general vision of your project, make sure your project goals are realistic and attainable. This can be done by identifying available resources, constraints, and assumptions.

Think About It

Goals can be wide ranging:
• How do you want to work as a team?
• What would you like to achieve with each deliverable?
• How could you apply the engineering design process to your project?
• What other goals are important to your team?

Visit the DEFINE stage of Leading Your Team (futurecity.org) to learn more about setting goals.
FUTURE CITY TEAM NAME: Plasmic

ORGANIZATION:

EDUCATOR:

TEAM GOALS

The first goal is listed for you. Feel free to list more than four goals!

1. Our team will successfully create a futuristic waste management system for our future city.
2. Improve presenting in front of an audience
3. Work as a team and meet new people at school
4. Understand the challenges of running a city and how we can be better citizens

Brainstorm possible resources, constraints, and assumptions for your project.

<table>
<thead>
<tr>
<th>Resources</th>
<th>Constraints</th>
<th>Assumptions</th>
</tr>
</thead>
</table>
| List the things that you might use as you research, design, and create your city. These could include money, time, tradable goods, and services you own or can get for free. | Find a solution that can actually be shown in a model | • Local Waste Management Engineer  
• Internet – youtube videos  
• RN at the hospital to learn about remote service of patients |
| • Find a solution that can actually be shown in a model  
• Scale to accurately show everything  
• Time and conflicts with other activities  
• SimCity Access | • What resources are available through your school, home, and community?  
• What skills do team members and your mentor have?  
• Who can you call on for support? |

THINK ABOUT IT

• What might get in the way of you completing your project:  
  - Busy schedules?  
  - Size of group?  
  - Other things?  
• How could your team work around any constraints?

THINK ABOUT IT

• How much time might you need for planning?  
• Will materials be easy or difficult to find?  
• In what ways will your team work well together?  
• Which parts of the project will take the longest?
List the things you believe to be true about your Future City project.

- Futuristic Setting
- Assume information is available on the internet
- Assume requirements are the same as last year
- Complete everything required on time
INSTRUCTIONS

In Part 2 of your Project Plan, you will make a schedule to help you complete each deliverable.

To create your schedule, you will identify what needs to be done and in what order. Follow the process outlined here or use your own.

Step 1: Establish Milestones & Tasks

Begin by brainstorming the milestones and tasks for each deliverable. Write the milestones and tasks for each deliverable on index cards or sticky notes. This will allow you to move them around later. (Use the template below as a guide or create your own.)

- **Milestones** are important points in the project’s timeline that help you determine whether your project is on schedule. Milestones are written as statements of what will have been accomplished.
- **Tasks** are the “to do” items you need to complete to accomplish each milestone.

Think About It

What tasks support each milestone?

*For example, a milestone for the City Model is to complete the moving part. Tasks for building the moving part could be to research ideas, collect materials, and design and build the moving part.*

Schedule Card Template

Deliverable: Boat Structure - Crane

Milestone/Task: Crane to attach to structure

Estimated Time to Complete: 30 minutes

Team Member(s):
Step 2: Determine Sequence

Now it’s time to think about the order in which things should be done. Arrange the cards for each deliverable in a logical order.

• An **Independent Task** can be completed at any time and is not related to some other thing being done.
• A **Dependent Task** must be completed before the next one can begin.

**Think About It**

Does one task need to be completed before another one can begin?

*For example, before you can build the City Model, you first need to determine the scale.*

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Step 3: Estimate Time

Think about how much time tasks will take and record the time on the cards. Keep in mind there are two types of time:

• **Work Time**: How long it will take a person to do the work.
• **Elapsed Time**: How long it takes for a task to be completed.

**Think About It**

How much work time and elapsed time would it take to glue trees to your city model?

*For example, it may take 30 minutes of work time for you to glue trees to your City Model, but it takes 24 hours (elapsed time) for the glue to dry.*

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Step 4: Assign Roles

Next decide who will get the work done. Assign team members to be responsible for each task and record their names on the cards.

**Think About It**

• What are the interests and skills of each team member?
• How will you divide the work?
• Is work distributed fairly among team members?

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Step 5: Make a Schedule

Now it’s time to transfer your cards to an actual schedule and assign dates. One way is to attach your cards to a timeline or large wall calendar.

*Keep in mind* that things will change along the way—be sure to review and revise your schedule as needed.
Show Us Your Style!

An image of your schedule is part of your Project Plan deliverable. What does your schedule look like?

Did you:
- make a large wall calendar;
- use a shared online calendar; or
- schedule your project mostly through text messages?

Show the process you used by inserting a photo, screen shot, or drawing in the Team Schedule sheet on the next page.
TEAM SCHEDULE

This is a sample screen shot of our communication to plan meetings.
INSTRUCTIONS

In Part 3 of your Project Plan, you will conduct check-in sessions to help you monitor your project's progress and ensure that you meet your goals.

Regular check-ins are a great way to communicate with your team. These meetings can be simple and quick—just be sure to do them often!

Make copies of the Check-In Report template and use them to update all project stakeholders (team members, educator, mentor) on the status of your Future City project.

Tip: Before Each Check-In:
- Review your schedule and the requirements for each deliverable.

After Each Check-In:
- Make changes to your schedule as needed.

Show Us Your Style!

One Check-in Report is part of your Project Plan deliverable
Submit one report that illustrates an important point in your project, such as when you solved a problem, made a critical revision, or reached a major milestone.

Visit the DO stage of Leading Your Team (futurecity.org) to learn more about check-ins.
### Team Check-In Report

**Date:** January 5 2016

**Team Members:**

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>What have you completed recently?</td>
<td>We completed part of our city model: plasma, landscape, sea wall, lights, dock. Slide show, Narrative</td>
</tr>
<tr>
<td>What are you working on now?</td>
<td>Finishing our model, rehearse presentation, and plan travel.</td>
</tr>
<tr>
<td>When do you think the current task will be done?</td>
<td>Friday 1-8-16</td>
</tr>
<tr>
<td>What do you need to keep your work on track with good quality?</td>
<td>We need to stay focused and work as a team.</td>
</tr>
<tr>
<td>Additional Notes</td>
<td>We are concerned that our presentation will not be ready in time. We will practice in front of other classes to prepare for an audience.</td>
</tr>
</tbody>
</table>
INSTRUCTIONS

In Part 4 of your Project Plan, you will reflect on lessons learned to help make your next projects easier.

Now that your hours of hard work have paid off, it’s time review what you did and how you did it.

Working as a team, record your responses to the questions on the next page.

Tip: Prepare for the Competition

Judges ask questions just like these. Reviewing your project and answering these questions are a great way to prepare for your presentation!

Visit the REVIEW stage of Leading Your Team (futurecity.org) to learn more about reflection.
TEAM REFLECTION

1. **Look back at your original project goals from the Define stage.** Did your team fully meet your stated goals for the project? Were there some goals that were met more completely than others?

Our team met all of our goals except for practicing our presentation during winter break. We used our team work and found out that we all have different strengths to contribute.

2. **Look back at your original ideas for your city.** Did any of the ideas change as you went through the process of creating your final city? Describe one way your city changed and why.

We had many "outside of the box" ideas. However, after doing research we found one idea that we all thought was plausible and able to be shown in the model.

3. **Consider your schedule and process.** What were some of the major challenges to meeting your deadlines, and how did you overcome those challenges?

We had a difficult time meeting at the same time due to busy schedules. So, we reassigned tasks to fit schedules.

4. **Consider your team.** How well did your Future City team work together? What do you know now about being part of a team that you didn’t know before?

Overall, our team worked well together but working with the different levels of commitment was challenging.

5. **What was the most helpful piece of advice** you received from your mentor or teacher as you worked on your Future City project?

The most helpful piece of advice from our mentor was that excuses are like armpits because everyone has two and they all stink. Because of this we got everything completed.

6. **What was the most valuable experience** you gained from the Future City Competition?

The most valuable experience we learned was that when you have an idea that someone is trying to put down, explain why you are right instead of just saying it louder.