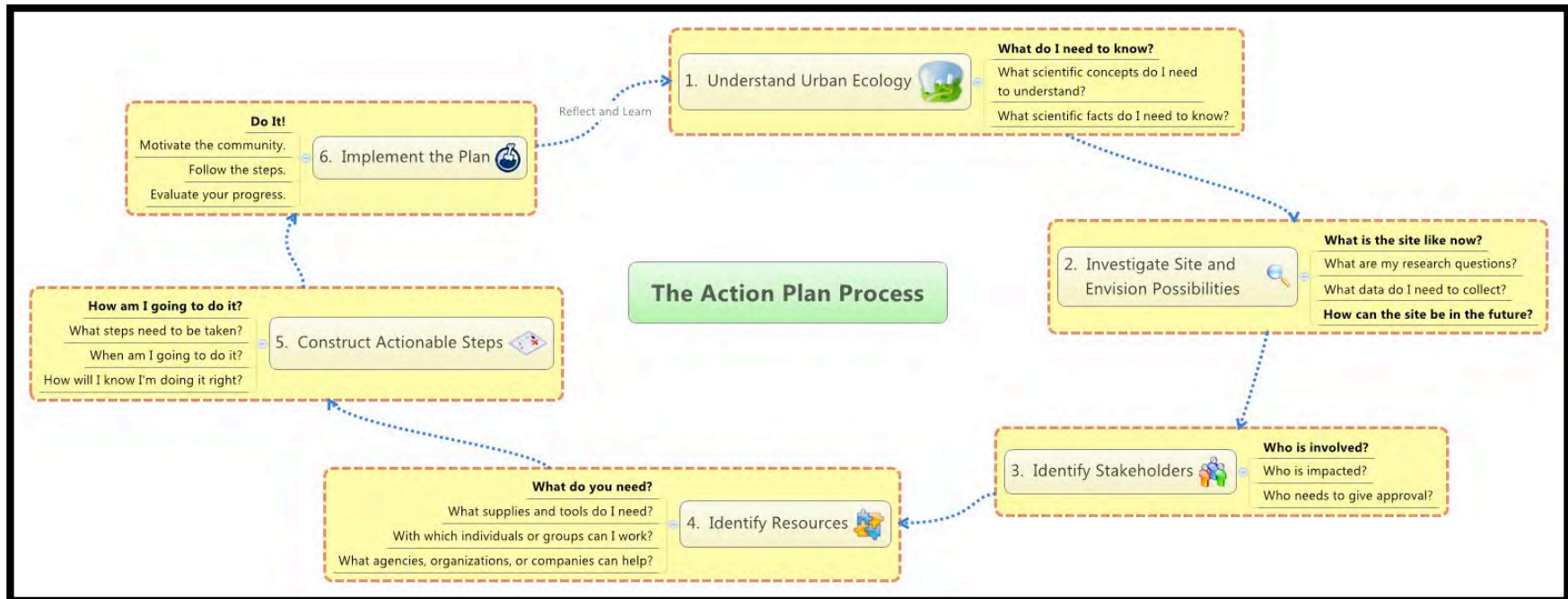


Name: _____ Date: _____ Class/Period: _____

Lesson 9: Action in Urban Ecology

Action requires some planning. One way to bring about change in urban ecology is to create an action plan following a set of steps. Below is a figure of the components that make up an action plan.

- ◆ **Science Knowledge**- the scientific information needed to make changes
- ◆ **Investigate Site and Envision Possibilities**- goals for the site changes
- ◆ **Identify Stakeholders**- the people involved in the changes
- ◆ **Identify Resources**- materials needed to make changes
- ◆ **Construct Actionable Steps**- the process to make your planned changes
- ◆ **Motivate and Implement Plan**- making the changes happen



Action Plan Case Study: Making Some Noise

A college-level urban ecology class in Holyoke, Massachusetts, has met with community members in their city. They have learned that many of their neighbors live in buildings among old shut down factories, and that the rate of asthma among children and cancer among adults in the community is much higher than the average. The community thinks that these rates may be due to chemicals that have been left behind when the factories closed which are leaking into the ground, the drinking water, and the air.

So, the college class wants to “make some noise” and raise awareness about these problems and how health of the community is linked to the health of the environment.

This was a problem that exists and this plan was put into action.

**Science Knowledge:**

What do I need to know?

We need to find out how chemicals in the environment can impact the health of people, especially those that can cause asthma and cancer. We also need to find out how these chemicals are measured, and how counts of people with asthma and cancer are conducted, and what the actual amounts of chemicals are and what the actual rates of asthma and cancer are. Furthermore, we need to find out how the chemicals can be cleaned up safely and effectively, and if there are other things that can be done in the community itself to help the process (like planting plants or trees).

**Investigate Site and Envision Possibilities:**

What is the site like now? How can the site be in the future?

There is a high rate of asthma among children and cancer among adults in the community. There are also a number of old closed-down factories in the neighborhood that used to use many chemicals when they were open. Nobody knows exactly where the chemicals have gone, and they may still be in the factories, now leaking. There are few trees and plants in the neighborhood, and hardly any big green areas. We need to make a map that looks at where the chemicals are and what the rates of cancer and asthma are.

We would like to see clean air and water, as free of chemicals as possible, as well as a number of green areas where there are now abandoned lots. These green areas can be planted with plants that help filter the chemicals from the ground, the water, and the air.

**Identify Stakeholders:**

Who is involved?

We need to work in close contact with the community members as well as the major community organization in the neighborhood. We need to contact the city government and present our case to them. We also need to present our case to the state Department of Environmental Protection and the US Environmental Protection Agency.

**Identify Resources:**

What do you need?

Because our goal is to “make some noise,” the biggest resource we need is help from people. The community members and the community organization are our biggest social resources. We also want to recruit volunteers from our college. We will also need computers and software to make maps, as well as equipment to take soil and water samples and analyze them for chemicals. There may be companies in the neighborhood who want to help out.

**Construct Actionable Steps:**

How are you going to do it?

1. Learn as much as we can about the problem and collect data.
2. Create maps of the neighborhood that show the presence of the chemicals and the rates of asthma and cancer.
3. Share our findings with the community and the community organization.
4. Contact city government to share our findings.
5. Send out a press release to the local newspaper, radio station, and television station.
6. Help community to start a letter-writing campaign to the city government and the EPA about our findings.

We will succeed in our action plan when we collect, analyze, and map our data; present our findings to the city; send out the press releases; and organize the letter writing campaign.

**Implement the Plan:**

Do it.

We are in the process of collecting and analyzing our data. The community and the community organization are in full support of our work, and we have been working closely with them. The community has provided photographs of the old factories to help us make the case. We will be hosting an awareness-raising rally at our college campus to bring in the support of students once the maps have been made.

We look forward to seeing what the data tells us!

Your Turn: Bringing Paper Recycling to Central High School

Central High School throws away all of their paper: all of their copy paper, construction paper, test papers, all of it, goes in the garbage. You have been asked to help Central High School's urban ecology class to start a paper recycling program at the school.

Construct an Action Plan using the framework provided. Remember that each group may have a different Action Plan.

**Science Knowledge:**

What do I need to know?

**Investigate Site and Envision Possibilities:**

What is the site like now? How can the site be in the future?

**Identify Stakeholders:**

Who is involved?



Identify Resources:
What do you need?



Construct Actionable Steps:
How are you going to do it?



Implement the Plan:
Do it.