



## Waste solutions - simulation game

Time	Activity
10 minutes	Move into groups Discuss the Problem Card Read and discuss viewpoint card As a group record major arguments
5 minutes	Rotation - 1 member of each group to visit two other groups Visiting members must discuss their viewpoints with the group
10 minutes	Visitors report back As a group, create policy statement that shows the groups view and answers the concerns of the other two groups
10 minutes	Presentation of policy statements Members of all three groups come together for large scale group discussion (may be split into smaller groups depending on number of participants)

### *The Problem:*

The government has decided to build a new nuclear plant in the community of SciZmicville. It has come to decide what will be done with the nuclear waste that will be produced from the plant. Make sure that everyone in the group has a chance to contribute to the discussion and come to a final group decision on the question:

“What will be done with the radioactive waste created in the new nuclear reactor plant in Scizmicville?”



### **Viewpoint Card 1 - SciZmicville citizens**

Everyone in your group was born and still lives in SciZmicville. You are all very concerned about having radioactive waste buried in the grounds near your homes and parks, or even worse, at the bottom of the beautiful lake that is a favourite spot of everyone in the community. Your group thinks that the best thing to do must be to get the radioactive waste as far away from SciZmicville as possible. One option would be to send the waste in large containers into space - maybe onto the moon. Or, it could be buried in polar ice sheets. After all, no one lives in the polar regions or on the moon. Why should the citizens of SciZmicville be in danger from radioactive waste just because they happen to live in the community with the new reactor?

### **Viewpoint Card 2 - Finance Office, Nuclear Reactor Plant**

Your group represents the finance office at the nuclear power plant. It is your job to make sure that the nuclear power plant makes electricity as cheaply as possible. You know that the more money that plant can save, the cheaper it can sell energy to the citizens. The plant will even have money to contribute to the community of Scizmicville and maybe build a new park. You do not want to spend a lot of money trying to bury waste deep in the ground, or try to send it to another region. The best solution is to just keep it where it is, in large containers above ground. This is both the cheapest and easiest solution. There may be problems if the containers leaked, but the most important thing is to deal with the waste right away and think about even better storage methods later.

### **Viewpoint Card 3 - Scientific Panel**

Your scientific panel has researched many of the options proposed by other groups, including underwater disposal, space disposal, arctic disposal, storing waste above and below ground. You have concluded that the safest option that we know of right now is to bury the waste deep in the ground near the power plant in deep geological structures. It is true that you are not sure how the waste will behave underground, and there is a slight possibility that this may cause problems in the water (leaking into water, etc.) in the far future, but as a panel you feel that this is the best option right now.