# Systems Scramble

**Facilitator Guide**

## Learning objectives

- *Systems thinking* helps us understand our complex world and plan for a more sustainable future.
- Systems have many interrelated parts and connections.
- We all have a role in creating a more sustainable future.

## Materials

- "Systems Scramble" activity guide and sign

The activity guide and sign can be downloaded from *www.nisenet.org/sustainability* or *sustainablekits.asu.edu.*

## Preparation

Read through this facilitator guide, look at all the activity materials, and practice the activity with a friendly audience until you feel comfortable with it. (Note that the guests have an activity guide they can follow, which has the same step-by-step instructions as this facilitator guide.)

## Step-by-step instructions

*This activity is meant to promote conversation about how systems work, and how we can work together to better understand systems and work toward creating a more sustainable future. Because of the active nature of this game it works especially well with camp or school groups. You need at least 8 players for this game, but you can modify it to play with fewer people.*

***Tip:** For a smaller group, try having each player mentally select just one other player, and move to stay directly behind their chosen partner.*

***Note:** To make this game accessible for players with special needs, you can ask the players or their aides the best way to modify it so they can be included.*

1. Gather 8–10 guests in an open space and ask if they'd like to play a game about systems that are always moving! Ask everyone to quietly look around and choose two other players. They shouldn't tell anyone which two other players they picked.

2. Instruct all the players to move so that they stay are positioned in-between their two partners when you say ***"Start!"*** Let everyone move around for a minute or two.

   ***Tip:** Sometimes participants think that staying between their two partners means getting really close. If there is a lot of jostling between participants, you can gently remind them, "Being equal distance between two players could be two inches, but it could also be two feet!"*

3. Now, tell the whole group to "***Freeze!***" Ask the players to make some observations about the game. Do they ever stop moving? Why not? Has anyone figured out who selected them to be one of their partners?

   Try moving one player, then tell the group to ***"Unfreeze!"*** What happens to everyone else? Ask players to make some observations about what happens to everyone else when one small part of the system changes.

**Safety:** Monitor the players closely. This activity can become high-energy very quickly! You may choose to ask players to move slowly.

**Note:** As you facilitate this activity, encourage guests think about what it takes to make a system work. What pieces are related and interconnected? What would happen to the system if you kept making disruptions and moving people? Why doesn't the system ever get "set" and stop changing? It's also important to focus on the ways this game is and is not like some real world systems.

Encourage players to think of some systems in their own life. Can they imagine ways that small changes to one part of those systems could affect other parts? As we plan for our future, we need to consider all the social, economic, and environmental systems that support our lives.

## Terms and Definitions

**Systems** are groups or combinations of interrelated, interdependent, or interacting elements that form collective entities. Systems are *complex,* with many interrelated parts. Systems are *dynamic* and change through time. And systems are *interrelated,* both connected to and part of other systems.

**Systems thinking** is a set of analytical skills that looks at the ways different parts of a system are related, work together over time, and are related to other systems. Systems thinking is oriented toward effecting change. It can contrast with traditional analysis, which often breaks systems down into separate elements.

## Credits and rights

This is a classic game. Our version, connected to systems thinking, is inspired by an activity created for *Facing the Future: People and the Planet* by UCAR available at: www.facingthefuture.org.



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Image of students biking courtesy the League of American Bicyclists.

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