

# Creating a complex system

## Preparation

All that is needed is a large open space for students to move around in.

## Instructions

Choose up to 6 students who will be observers. Send them out of the room while you explain the activity to the class.

Say to students:

*We are going to do an activity that illustrates how a complex system works. Each student needs to choose two other students in the room. Do not tell the students you have chosen them. You can choose anyone – you are not going to have to talk with them or do an activity with them. Once you have heard the instructions you are going to get up, and move around the room in **silence** trying to make sure you are keeping this rule:*

***Wherever you are in the room you have to be an equal distance from each of the people you have chosen.***

You may need to demonstrate what you mean with a few students.

Once you are sure the students understand the task, invite the observers back into the room. Get them to stand on chairs so they can see what is happening. Instruct the observers to observe very carefully and notice any patterns.

Once the observers are in place, invite the class to get up in silence and move around – always making sure they are keeping the rule.

If the movement slows down, call a student to come towards you (reminding the class they have to keep to the rule). This should create some more shuffling about.

Stop and ask the observers what they have noticed.

Do they notice that moving one person seems to affect many different people in the system?

Hold a class discussion about what was going on. Get various perspectives – from observers and participants. What was the learning?

## Thinking underpinning this activity

This activity is designed to demonstrate at a very practical level a complex system. All the parts (the students) are working together to try and “achieve something” – in this case the rule that each person has to remain equidistant from 2 other people in the system. Changing the position of any person, impacts on everyone else who is part of the system.