

Caterpillars & Cornstalks

Chutes & Ladders Farming Edition

Learning objective: Children will gain a basic understanding of some of the factors that help and hinder the ability of small-scale farmers to grow food.

Recommended grade level: Grades 2-4, Ages 7-10

Subjects: science, social studies, math

Skills: reading comprehension, critical thinking, vocabulary, counting

Recommended time: 20-30 minutes

Number of players: 2-4

Materials:

- The game board (another PDF)
- A place marker for each player (coloured tokens from another game, buttons, coins or the cutouts of farmers provided on the game board)
- 1 die

Background Information for Educators

This game follows the same rules as the popular children's activity 'Snakes and Ladders'. It is designed to give children an interactive way of learning about some of the factors that help and hinder the ability of small-scale farmers to grow food.

In this version of the game, the players will play as if they are small-scale farmers (subsistence farmers) in the developing world who are trying to grow a grain crop to produce food for their families for the year. As the players move around the game board they will land on squares which will name a problem that will set a farmer back (the caterpillar squares) or something positive that will help farmers produce food (the cornstalk squares).

What hinders (caterpillars):

- Rats eat your seeds. Can't plant.
- Not enough rain. Too dry to plant!
- Soil is too rocky. Plants cannot grow.
- Family member is sick and cannot help in the field.
- Seeds are too expensive.

- Bugs eat the plants.
- Too much rain. Flooding!
- Plants get disease.
- Major storm washes away everything.
- Rats eat the grain (after it has been harvested).

What helps (cornstalks):

- New tools for planting.
- New sprinkler (irrigation) system to water fields.
- Good weather.
- Rain comes when needed.
- Learning a new farming skill.
- Fertilizer which helps plants grow.
- Neighbour helps harvest.
- Your family helps you plant.

Activity

- Explain to the players that they will play a game in which they will be "farmers" in a developing country. Their goal is to finish the game.
- All players line up their place markers before square 1.
- The youngest player rolls first.
- S/he moves the number of squares as indicated by the die.
- The next youngest player goes next, and so forth.
- If a player lands on a square with a caterpillar, s/he must read what is printed on the square before sliding down. If a player lands on a square with a cornstalk, s/he must read what is printed on the square before moving up.
- The game ends after all players have reached square 100 or once time is up (as set by the teacher/leader).

Optional: Have the players cut out the images of farmers found on the bottom of the game board. These images can be glued to a piece of cardboard (like a cereal box) or printed on thicker paper and cut to size to make place markers.

Pre-Game Discussion

Here are some suggested questions that you can ask the children before playing the game:

- What do you know about farming? Have you ever visited a farm? Do you live on a farm? What did you see or learn while on the farm?
- There are farmers all over the world. In some countries, the way that people farm is very different than here in Canada. What do you think are some of the differences?

The children will give different answers. If they are not mentioned, you can say that often in many countries the farms are much smaller than in Canada. In some countries people only produce enough food for themselves and their families. These types of farmers are called small-scale or subsistence farmers. You can also say that in many countries, many farmers are women and that the farmers use very simple tools, not big machines.

- Do you think that it is easy or difficult to grow food? Do you think that it is easier in Canada or in a poorer country?

Vocabulary

Before playing the game, you may wish to clarify with the players some of the terms that they will encounter on the game board:

Fertilizer: a material that is added to soil (dirt) to provide nutrients to help plants grow. Think of it like a vitamin pill for soil!

Grain: a type of plant that people eat. For example, barley and wheat are kinds of grain. In Canada, grain is used to make breads and cereals.

Harvest: to pick or cut plants after they have grown. In Canada, this is usually done in the fall after the plants have had time to grow during the spring and summer months.

Soil: material in the top layer of the surface of the earth in which plants can grow. Plants in a garden grow in soil. You might think of it as dirt.

Post-Game Discussion

Here are some suggested questions that you can ask the children after playing the game:

- What helped you as a farmer?
(What helped you move up the cornstalks?)
- What problems did you have as a farmer?
(What made you move down the caterpillars?)
- Do you think that it is easy being a small-scale farmer?
- Do you think that there is anything that we can do in Canada to help small-scale farmers in other countries?

In addition to the ideas that the children have, here are some more:

Donate money to organizations like Tearfund Canada or Canadian Foodgrains Bank so that farmers can:

- buy new tools (or new bins to prevent rats from eating the grain!)
- go to classes to learn new farming methods, like how to make fertilizer from simple materials.
- build better ways of collecting water for sprinklers.

Help protect the environment by:

- walking, riding our bikes or taking the bus to school, if possible.
- not wasting food, because most food travels long distances to get to us. By wasting food, we are wasting all of the energy that was used to produce and ship the food.

These may seem like simple suggestions, but they are good practices for children to adopt when they are young!