

Riskville is a game inspired by the Centre for climate and safety, CCS, at Karlstad university.

The instructions for the game and a description of materials needed to construct your own game are freely available for download at our webbbpage

<http://www.kau.se/en/ccs>

ABOUT THE GAME

What do you need to make your own version of Riskville?

- A green felt mat or similar representing the ground
- Blue ribbons representing streams and rivers
- A larger piece of blue cloth representing a lake or the sea
- A smaller piece of blue cloth representing a small lake
- Strips of paper representing: a railway through town, a highway through town, town roads and parking lots
- Blue pieces of paper representing pools of water (floodwater)
- Green pieces of paper representing parks or other vegetation in the town
- Wooden blocks representing: Different types of dwellings, church, museum, schools, shops, sports hall, industries, hospital, health care center, drinking water plant, sewage plant, police station, local government, elderly care center and other suitable public services.

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Welcome to Riskville!
– a town close to water

GAME INSTRUCTIONS

Begin by appointing a game leader. As a game leader you will read instructions to the participants, lead discussions and keep track of the time throughout the game. Text with a frame like the text below are instructions to the participants and should be read outloud by you. All other text is instructions to you as a game leader.

- **Riskville is growing fast and many people are discovering the attractive town near water**
- **Our task is to help develop the town further using the objects on the table**
- **Lets start by taking a look at what is already displayed on the green mat on the floor**

GAME INSTRUCTIONS

Read out loud while pointing at the described objects in Riskville:

- Riskville is a mid-sized town. Like so many other towns it is located where a **river** flows into the **sea or a big lake**. There is also a **smaller lake** in the vicinity of the town.
- The grey road crossing Riskville is the **highway** connecting Riskville to other towns. You can also see the **smaller roads** in town as well as the **railroad** through town.
- Buildings with **red roofs** are residential buildings. **Grey buildings** represent industrial buildings and **yellow buildings** represent commercial or cultural buildings. Most buildings in Riskville are **tagged** so you can see what they are.
- The church is located in the **old town centre**, which is also the current city centre
- In the game storage of buildings and materials there are also blue pieces of paper representing pools of water and green pieces representing grass and parks

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Divide the participants into smaller groups of 3-5 persons per group. Read the instructions below to everyone:

- Each group will soon receive an assignment card.
- Read the assignment in the group and decide together how to proceed.
- Carry out the assignment using materials from the game storage of buildings and materials.
- All groups will carry out their assignments at the same time.
- You will have two minutes.

Now hand out one assignment card (yellow) to each group.

GAME INSTRUCTIONS

Walk around in the groups and help them get started (if needed).

(When about 2 minutes has passed, you are going to stop the activity and let all groups, one at a time, describe their assignment and work. Encourage the other groups to ask questions and comment since one purpose of the activity is discussion and reflection.)

When about 2 minutes has passed, stop the activity and read:

- Now each group will read their assignment and present how you carried out your task by showing where and what you have built and what was your reasoning behind that.
- The other groups are welcome to ask questions to the group presenting.
- We start with the first group.

GAME INSTRUCTIONS

Read to everyone:

- Each group will soon be asked to make some changes in Riskville (Build, remove, move or in other way change).
- What does it take to get people to move to a town? What is needed to create an attractive, safe and sustainable town? Look at the town you have built. Now you have the opportunity to make the changes you think are needed to make Riskville the perfect town.
- Your task is to reason in your groups what you want to do and then implement those changes.
- If two or more groups want to change the same location and can't agree, the original buildings will have to stay on that location. You have 5 minutes, get to work!

GAME INSTRUCTIONS

Walk around in the groups and help them get started (if needed).

After about 5 minutes has passed you are going to stop the activity and let all groups, one at a time, describe what they decided to do and how they did it. Encourage the other groups to ask questions and comment since one purpose of the activity is discussion and reflection.

When about 5 minutes has passed, stop the activity and read:

- Now each group will tell what they decided to do and present how you carried out your work by showing where and what you have built and what was your reasoning behind that.
- The other groups are welcome to ask questions to the group presenting.
- We start with the first group.

GAME INSTRUCTIONS

Read to everyone:

- Now a climate related event will affect your town!

Let one participant draw one of the climate related event (red) cards and read the card out loud.

The read the following to the whole group:

- Now we will all together mark a few consequences in Riskville from the event we just heard described. Mark affected areas with a suitable paper clipping.
- Reason about consequences and damages.
- Help each other to mark out the consequences in Riskville as good as possible.

GAME INSTRUCTIONS

Read to everyone:

Now we will discuss a few questions together (one at a time):

- How serious are the consequences of the event?
- How large area was affected by the event?
- Will the consequences of the event lead to secondary consequences?
- Are humans in danger of getting hurt, ill or die from the event?
- What kind of proactive measures can be taken to prevent or minimise a similar event in the future?

Thank you for leading this round of Riskville!

Get help from the group to restore Riskville to how it looked before you began building
(Visible on card nr:4).

Riskville has grown considerably and a new Fire station as well as a Police Station are needed in the town.

- Build a fire station at a suitable location of the groups choosing.
- Build a police station at a suitable location of the groups choosing.

The old city center and medieval church in Riskville are popular tourist attractions.

- Build a parking lot somewhere close to the old city center.
- Build a group of holiday cottages in an attractive location close to water.

The residential area located at the coast needs an improved connection to the city center at the other side of the railroad.

- Build a parking lot close to the residential area.
- Connect the parking lot to the city center with a railroad underpass.

Many Riskville citizens drive to the neighbouring towns to do their shopping because they find the range of available goods inadequate in Riskville.

- Build a large mall or shopping center with parking lots and access roads at a location fo the groups choosing.

There is a growing need of smaller rental apartments in Riskville.

- Build rental apartments on two separate locations close to the city center so that existing infrastructure like roads, grid and water systems can be used.

Health care needs to be improved in the growing Riskville.

- Add to the existing hospital, move to a brand new bigger hospital at another location of the groups choosing or start a complimentary hospital at a location of the groups choosing.

Local politicians have decided that one of the old industrial areas in Riskville should be converted into an attractive residential area.

- Select one industrial area and remove the industrial buildings. Sanitize the area and build residential buildings of the groups choosing.

A rainy autumn [Lake flood: slow onset, long duration]

One autumn it keeps raining day after day for weeks on end. As a result the water level in the large lake rises and low-lying areas get flooded. When the water level in the lake is that high, it will take months before the water recedes.

Residences and other buildings situated near the rivermouth and lake are flooded, as is the town sewage plant which is now leaking sewage. Roads near the lake are flooded and become impassable.

Examples of consequences:

- *Buildings in low-lying areas are flooded.*
- *Basements of buildings close to low-lying areas are flooded.*
- *Rescue services are prevented to reach some areas.*
- *People are prevented reaching and leaving their homes.*
- *Sewage is leaking from the flooded sewage plant, contaminating water.*

Sudden intense cloudburst [flash flood: rapid onset, short duration]

A thunderstorm and intense cloudburst passes over the city. Hard surfaces (such as tarmac, stone or concrete) doesn't allow water to infiltrate the ground. Excess water gathered in such areas needs to be drained through stormwater infrastructure which can then become overloaded or obstructed.

Surface runoff is a primary cause of urban flooding, which can result in property damage, flooded basements, and street flooding.

Examples of consequences:

- *Large amounts of water quickly gather in low-lying areas, rendering viaducts impassible and making parts of the town inaccessible by road.*
- *Basements are flooded by surface runoff or by overloaded sewage systems.*
- *Culverts get blocked by debris and water takes alternative pathways eroding road and railroad embankments, undermining and collapsing sections.*

Spring flood [Riverine flood: Medium onset, medium duration]

After a snow-rich winter a period of warm weather and rainfall results in a big spring flood. Water level in the river rises, flooding buildings and infrastructure in low-lying areas close to the river. Basements are flooded and homeowners are busy trying to save their possessions.

The high water level and rapid flow of the river results in debris and even some jetties and boats getting carried away by the water. Debris end up getting stuck under the town bridges. This partially dams the river and areas around the bridges and viaducts close by get flooded.

Examples of consequences:

- Basements are flooded by surface runoff or by overloaded sewage systems.
- Viaducts for cars, bikes or pedestrians gets flooded and impassable.
- Traffic needs to be rerouted from flooded areas.

Heatwave and drought

After a prolonged period of little precipitation a heatspell strikes the town. Inhabitants suffer from the heat and have a hard time finding shadow and coolness. The elderly and ill have a specifically hard time when they struggle to get to water to cool down or even get a glass of water when they are thirsty. The home for the elderly as well as the hospital lacks AC.

The prolonged warm and dry period makes it hard for farmers and animal keepers to get forage for their animals. Ground water levels are getting low limiting drinking water. An irrigation prohibition is imposed.

The heatspell lasts for three weeks.

Example consequences:

- Increased mortality in vulnerable groups such as the elderly and ill.
- Forage shortage.
- Water scarcity and irrigation prohibition.

Forest fire

After a prolonged period of drought several forest fires rages in the country. One fire starts in the fringe area of Riskville.

The rescue services rapidly respond but struggle to get the fire under control because of dry weather and hard wind. Inhabitants in the outskirts of Riskville are evacuated and the preparedness for additional evacuation is high. In one area close to the forest a few apartment buildings catch fire and burn down. Traffic in the area has to be rerouted. The fire rages for three days and uncertainty about the situation continue a few more days.

Example consequences:

- Injury to persons connected to the fire and the firefighting work or by inhalation of fire smoke.
- Damage to property. Dwellings and other buildings catching fire.
- Hazardous fire smoke covering a larger area.
- Evacuation of inhabitants.
- Psychological stress.