



# **A YEAR WITHOUT A SUN**

EduLarp

2020

# A YEAR WITHOUT A SUN

## Student play or educational role play

Compiled by: Marilin Eessalu, Ederi Ojasoo

It is the year 1816. The small village of Suure-Kaalika somewhere in Europe lives its peaceful life. There are several farms, fields, cattle, people are tired of the Napoleonic Wars and long for a peaceful life again. This spring seems to be a breathtaking time and a new life can begin with a resurgent nature. But there is still something wrong. Why is the sky cloudy and when can the sun shine again? .... "A year without the sun" is an environmental role-playing game that makes you think about what happens when we don't see the sun... The game is aimed more at young people and adults. The focus is on climate change and its effects.



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## **General information:**

Target group: 4.-12. class

Number of players: 5-25

Duration: 1.5h

Topics covered: 1. History  
2. Resources  
3. Social welfare, social responsibility  
4. Impact of climate change

## **Resources:**

1. A classroom in which each group can sit together around a table and gather to stand or sit together for a joint discussion.
2. Game materials (official print or self-printed): roles, scenes by families, newspaper clippings.
3. Optional costumes

## Conducting the game

The game takes place in one European village, different families are played. The game has 2-4 smaller groups (family, or household) with 2-5 members. The game leader plays the village elder and controls the game.

The game consists of eight scenes. The facilitator reads the general information at the beginning of each scene and gives the groups information about their family either in advance or at the beginning of each scene.

Families will have 10 minutes to discuss each scene, then the village elder will convene a village meeting and discuss common topics (5 minutes). After each scene, the families have to decide their level of well-being on a ten-point scale and mark it on a common chart.

### Preparations

Here are the specific steps that need to be taken before the game can take place. Supervisor preparation on the topics to be covered should take place in advance (see “Post-Game Discussion”). The preparation of the game could take about 15-45 minutes. Depends on the participants and the instructions of the game.

**Dating.** In the case of participants who do not know each other, it is advisable to look at the name circle, where everyone says their name and expectations for the game. If desired, you can play a warm-up game of your choice.

**Introduction to the edularp.** See also the video here: GoodJobStudios: Learning Through Roleplay: Edularp - <https://youtu.be/cRQd8hcOoAc>

Before starting the game, the facilitator should briefly introduce what it is all about. If desired, participants can be asked if they have played role-plays before. A student role play, or educational role-play, is a method in which participants learn about selected topics, becoming characters in an agreed story and in a world to solve a certain problem or reach goals. Also agree that the conflicts arising from the characters will remain in the game, and during the game each participant will try to be guided by the goals and personality of their character.

### Introduction the topic

The facilitator must introduce the participants to the topics they are learning about in the game. As a minimum, each topic should be read aloud, explained in detail, and students should be asked for feedback on whether and how they understand the topic. A deeper

discussion of the topic should take place before and after the game and is not included in the game time.

### **Introduction the story of the game**

It is the year 1816. The small village of Suure-Kaalika somewhere in Europe lives its peaceful life. There are several farms, fields, livestock. People are tired of the Napoleonic Wars and long for a peaceful life again. This spring seems to be a breathtaking time and a new life can begin with a resurgent nature.

The participants of the game are divided into four farms: Mäetipu, Veskiveere, Teeserva and Võseriku. The mountain family of Mäetipu are wealthy grain growers, Veskiveere is, as the name suggests, the Teeserva farm family runs a village shop and Võseriku farm is the poorest in the whole village, which often depends on the goodness of others.

### **Overview of the game**

Explain to the participants that they play the villagers in 1816. The game looks at life in the village of Suure-Kaalika through two years, with a small scene taking place every season. The game manager tells what has happened, then the peasant families can discuss among themselves and then a general discussion takes place in the village square. After each joint discussion, the families mark their satisfaction with life on a ten-point scale.

In addition to the general scenes of the game, the internal scenes of the families must be followed. Each general scene provides an indication of which problem or issue needs to be addressed within the family.

The satisfaction of each family must be marked on the graph in a different color after each scene. At the end of the game, lines appear on the graph that show how satisfaction with the situation fluctuated during the game. At the end of the game, you can discuss why one or the other family felt this way and what caused it.



### Ice breaking

It is recommended to make a warm-up game. For example:

Ask participants to move around the room freely. Not just a circular wheel, but in different directions and randomly. The facilitator then gives instructions on how to move and behave and the participants try to express and act out according to the instructions. For example, “move as if you were an old man”: participants try to express their version of the old man, for example, as if walking, crouching, slowly, growling, etc. Recommended roles (which coincide with the roles of the game): a tough farmer, a shop assistant, a beggar, an angry crowd at a demonstration, a shepherd with cows, a scythe haymaker, etc.:

## ROLES

**1) Mäetipu farm** - Your farm is prosperous and very prosperous. Every autumn you get golden fruits in the form of piles. Cows and goats give milk and there is never a shortage of cheese. You have enough grain and money for each winter. You have kept your family and your family in good shape. Everything has been fine this year as well, although the winter was difficult and the crops and populations are not as good as in previous years. It is important for your family to show kindness and holiness beyond. It also needs to be kept up to date.

1. Father **Oskar** (48)- you are proud of your farm. Proud that your son has a good education in the city and you want to bequeath a farm to him. You don't want to hear he's not interested. You have become a rich man and with your good position you can influence the local life and situation. Oscar's

biggest influences are his wife and twins. Well, how come you still don't tell little English-eyed girls?

2. Mother **Ann** (48) - You are the mother of a large farm and proud of your husband and children. You share generously with your own, but you don't really want to give outside the front door. You agree that everyone has to manage on their own. And you and your family don't have to support the whole community.
3. Sun **Madis** (24) - Madis is the eldest son of the family. Well, frankly, the only one. Madis is a young man with a higher education who does not want to engage in farming. A little sleepy and disappearing into thoughts. They often do not understand why their family should be kept alone. If there are those who need help, they still have to be helped. Besides, he likes to talk to Veskiveeri and watch the mill work.
4. Daughter **Miia** (19) - Miia is a specific farm daughter. A little to your father. Mia is jealous that her brother got an education, but she didn't. But that is why he has secretly read all his brother's books and has a wide horizon. Sometimes a little cheeky, but very caring about others.
5. Twins **Loore ja Leene** - 10-year-old twins who crack all the time. A little arrogant and nosy. They often interrupt the conversation and do not let the adults decide their own affairs. They want to know everything in everything and everything. They think that the whole wealth and other stuff of their family should remain with their family. Well, they know that Dad is easy to influence. Especially for them.

**2) Veskiveere farm-** Kõrgeperve farm is located on a river bank, where there is a wonderful place for a watermill and a dam. Veskiperere is one of the most beloved families in the village. There are nice and friendly people in this family. They always find time to help someone or share their own slice of bread. All the people of Veskiveere are very kind, social and open. No one is afraid to turn to them and ask for help. Well, one of the sad things is that the hostess of Veskiveere farm died a long time ago, when the youngest child was five. Since then, the family's oldest child, daughter Adeele, has been like a mother.

1. Father **Villem** (44) - A cheerful and bright miller who almost always tells everything that comes to his mind and what he sees. For him, life is one big mill wheel. What can happen to that? Rolls and rolls. Sometimes there is a rock or other jura, but somehow this stuff still rolls along its path. He doesn't think much about the distant future. One year and one winter ...
2. Daughter **Adeele** (24) - an adult daughter who has been for the mother for the brothers. Well, all this mill stuff and other household. He has been the more practical side of Veskiveere Farm since he was a child. Dad is like an artistic soul, which he then has left. Someone has to be a little more practical.



Besides, he has brothers in his family, whom he has had to take care of from an early age.

3. 2 brothers - crackers and peckers at each other. Adeele is convinced that they will not be able to do their things in life.

18-year-old Otto - Otto is the eldest son in the family- Even if he knows that Adeele is older than him, he considers himself the most important of the children. However, he is friendly and kind hearted. Sometimes it is 100% against Adeele's thoughts and decisions, but it comes more from jealousy and desire to be better than Adeele.

17-year-old Sass - Sass is fun and naughty who is not interested in world affairs. What's going on around him is none of his business. His life still goes on as it goes. He has decided to spend his time in the mill helping his father.

**3) Teeserva farm** - Teeserva Farm is the only one who runs a shop in the village. The family of the village shopkeeper is a little proud and considers himself better than others. They are the ones who keep up with the innovations and thanks to whom goods can move. Essentially like a local banker. Feeling a little more important, they have a good relationship with Mäetipu Farm. But the owner of the mill is also honored. He can also make a business deal in the village.

1. **Father/ merchant Uudu** (53) - A gentleman with a soft and big story, to whom the villagers of the surroundings come. Outside kind and friendly but working for your business. He hasn't struggled and worked hard. And everyone has to manage their own life. It is not very prone to lend to others or exchange something without seeing any direct benefit.
2. **Mother Ada** (50) - A little anxious and calm, but loyal to the man and supporting every decision and word he makes. Sometimes she looks like she's just her husband's shadow. But there is no reason for that - Ada comes from a large family where she was the youngest. Therefore, no one listened or saw him. Being a woman to a merchant was just a matter of luck. What about the fact that Adale is so reluctant to do so many things.
3. **Son-heir Kaarel** (21) - pampered son, learns a profession next to his father. He knows he's going to have a good life. Just like his father fell out of his mouth. Ever since he was a little boy, he didn't like to borrow things or play with other children. Others still wanted to download his things then

**4) Võseriku farm** - Their hope is only the goodness of their neighbors. They have nothing but six starving children. A small houseworm and a little land.

1. **Father Karl** - From a poor family. In his life, he has almost never been able to rest or enjoy being like that. Time and time again, one trouble is caught at the other.

2. **Mother Mari** - Mari is often sad and unhappy. Children are often ill and one is thinner than the other. Day by day there is still the same trouble, where to find enough food and clothes for children. The farm is small and Mari's heel has a lot of work to do. Fortunately, children are still helpful.

3. **6 children** - one of them wants to go. The one who goes away is faced with the question of whether to stay and help the family on the spot or go away elsewhere to seek help and happiness.

# SCENES

## 1. Scene - Spring

Finally, winter is over! Everyone is happy that the days are longer and the weather is warmer. Every spring, workshops take place in the village of Suure-Kaalika, where all families go to help each other in the field. Now is the time for a big village meeting to set up a campaign day. Before that, however, families have to decide what to sow, where to get fruit, who to whom to lend what...

- Is it necessary to approve someone's loan agreements?
- When do we work?

## 2. Scene - Summer

Although the spring was cool, the fruit sprouted nicely and you could see that maybe you can get a harvest. But June also started out cool and cloudy, and now suddenly there was an unexpectedly heavy hail last night, which lasted several hours and beat the young plants to pieces. The crop has been destroyed, the leaves of the vegetables have been crushed, and everything that has grown and green has been destroyed. The whole village lost its sown fruit, and now we have to see what to do next so that we don't starve in the winter. But what to do when something is constantly happening - June, July and August have been a constant extreme mixture of snow, drought and oppressive heat.

- Maintenance of scrubs
- New start date

## 3. Scene – Autumn - winter

Autumn: The fruit was sown again. It got a little warmer in July, but the sun was constantly hiding behind a cloud and the summer heat didn't come. And the leaves of the trees started to turn yellow already in the beginning of August, autumn came very early this year with heavy rains. The heavy rainfall in August also drove the Suure-Kaalika River over its banks, and unfortunately almost all the grain fields of the village are located by the river. This means that much of the fruit sown late and not yet fully ripe was submerged and rotted. Some of the crops were saved, but the beds in the home gardens also bore very little fruit this summer, and the situation is generally poor. It can already be seen that the animals do not have enough food to keep them over the winter.

Winter: This is the hardest part of the year. It seems that no one has enough to eat and the villagers keep themselves alive by mixing flour with sawdust and looking for frozen mushrooms in the forest. Rumors from far away are not much better, typhus is spreading in the cities, but many villagers are still thinking about going elsewhere in search of a better

life. There are rumors among the people that life is better across the Atlantic. But getting there is very expensive. Elsewhere, people have moved and Suure-Kaalika

one hungry family on the other side of the carrot forest is seeking shelter from the village. The village elder has convened a meeting to discuss whether or not to receive the refugees.

- Does anyone have food for the Shrubs?
- Do we accept a refugee family?

#### **4. Scene - Spring**

Famine has led to both children and the elderly, and there is sadness and pain in the soul. The villagers who have gone to the city occasionally send some money, which is a great help. There are few seeds and the prices of grain brought in by traders from other parts of the world have risen sharply over the year. It is said that the situation in the north is better and bigger grain cargoes are coming soon and the price may fall a bit. The village elder has proposed to put the money together and buy fruit for the village together, hoping that this summer will have a good harvest and everyone will overcome the predicament.

- What has become of a refugee family?
- Work day

#### **5. Scene - Summer**

The summer is humid and crisp, with sleet rain, the fruit grows poorly despite people's hopes. Typhoid fever has spread from the cities to the countryside and many villagers are unable to work in the fields due to a serious illness. Typhoid fever begins with a fever that quickly rises to a very high level, with the addition of cough and abdominal pain, often followed by pneumonia, and is almost always fatal, especially in young children. There is no doctor in the village of Suure-Kaalika, there are only a few women-midwives who try to help the sick with their plant infusions ...

Residents of other villages and towns have also fled diseases and sought a better life. A family with three small children will arrive in the village of Suure-Kaalika at the end of the summer, and once again the villagers will have to decide whether to allow them to stay with them.

- Another refugee family

#### **6. Scene - Autumn**

This year's harvest was poor again. People are gloomy and it is seen that a very difficult winter is coming again. However, learning from last winter, the villagers have prudently picked forest products during the summer, dried nettles and tried to increase their food supply in every possible way. Prices are high and dissatisfaction with the government is growing because no state aid has come to anyone. Many

more rebellious or more hungry peasants talk about rebellion. It is reported that there have already been strikes in cities and deaths, but the government is still not doing anything to help people in difficult times, although taxes continue to be collected

- Closing the store
- Strangers go on strike

### **7. Scene - Winter**

It's hard, dark and cold. The peasant families have retreated to their homes and everyone is trying to cope somehow. The typhus seems to have subsided with the arrival of the cold, but no one has the strength. The crumbling mood and hopelessness have led many people to commit suicide. It is said that one man went mad in the village of Väike-Kapsa. Young people who have gone to the city send letters about their lives and nothing positive seems to be happening anywhere.

- A winter so difficult that there is no joint discussion

### **8. Scene - Spring**

Finally, winter is over. Also this winter, many people died, especially the elderly. But human nature is already such that the emerging nature lifts the mood. Over several months or even years, this spring the sun peeks out from behind the clouds and the weather is so warm that you can walk around with the power of a shirt. Tonight is a village meeting to discuss what to do next:

- Trust and sow refugee beet seed?
- Again, take a joint trip to the port to buy grain together?

### **Closing remarks**

This summer was better than the previous ones, both the fruit and the beets grew well and people's health recovered. Surviving difficult times, and the remaining villagers learned how to plant more diverse crops, harvest forest for the winter, and be more caring for each other.

## **FAMILY EVENTS**

### **MÄETIPU FARM**

#### **1. Scene 1 - Spring**

You have received two prayers. Võseriku Farm has once again asked for a loan to buy grain from Veskiveere Farm. They have not paid the last winter loan, but at the same time they can be trusted by good people. Veskiveere Farm has also asked for money for a loan, if it wants to make renovations in the mill, which would benefit the whole village. Maybe even everyone will get a little richer if more grain and flour can be sold in the area. However, since one's own farm and relatives also have to be maintained and the winter was not the best, the financial resources are not exactly the same as every year. What to do? Should I lend money to Võseriku Farm and / or Veskiveere Farm? Both cannot be in the same volume, otherwise they will not do their work and editorial work.

#### **2. Scene 2 - Summer**

The destruction of the crop was a heavy loss for you, because you planted all the seed collected last year. Now you have to decide whether to buy more seed from Veskiveere farm and sow it again or not. When you buy, it takes up all your money, but if you don't plant anything, you only have to survive the winter by buying food from the store, which is much more expensive.

#### **3. Scene – Autumn-winter**

Because your field is on top of a hill, your crop was largely intact and you harvested it on time. Relatives living in your city wrote that life in the city is not commendable either, but Madis's son still wants to go back to the city. There is so much gloom in this village in the winter, and it is still especially difficult now, in the city you could work as a teacher at a school and earn some food. But when Madis goes, she has to give her the last piece of money that your family still has left, and in addition, there is a much higher risk of typhus and death in the city. You have to decide whether to let Madis go or not.

#### **4. Scene - Spring**

Your family still has food to eat, but money is scarce to pay taxes. The village elder's proposal to put the money together and buy grain is a difficult issue. On the one hand, you have some seed left on your own, because your field was not completely destroyed last year. On the other hand, it is very small and it would be good to get more, but for that you will probably have to ask for a loan from relatives living in the city.

#### **5. Scene - Summer**

Your family was full of typhus, and by some miracle, you all managed to survive. For several days now, you have been arguing among yourself as to whether the village should accept the family that knows where it comes from and maybe bring a new wave of disease.

Common sense says that no strangers should be allowed here, but since you have experienced for yourself how close death can be, you do not want this experience for anyone else, and although everyone has little food, the refugees in this village would at least get a warm shelter. for the winter ...

## **6. Scene - Autumn**

Madis has come from the city and wants to go to a big demonstration, where the government is demanding money and food to be distributed to people. Madis has already managed to invite other young men and boys from the village of Suure-Kaalika, but her father Oskar is very much against it, fearing that Madis may die or be imprisoned during the rebellion. He wants Madis to come back home instead and help the family with winter preparations, but Madis thinks that he earns extra money for the family in the city anyway, and that is more important.

## **7. Stseen - Winter**

You got a letter from town.

## **8. Scene - Spring**

Village meeting.

## **VESKIVEERE Farm**

### **1. Scene - Spring**

You plan to repair your grinder this spring, because all the systems are out of date. It would be good to order a new shaft transfer from the blacksmith's village in Väike-Kapsa, but it is quite expensive and you do not have free money for it. I asked Mäetipu Farm if they could get a little loan from them, but there is also a possibility to postpone the whole renovation plan and save money themselves. In addition, it should be decided whether to sow oats or wheat in your field this year - wheat is always worth the price, and if it cannot be sold ground into flour, it will cost itself. However, you could get a little more money for oats, it is a more expensive commodity, and you can then repay the loan or make repairs next year. The Võseriku farm family also asked for a loan for the loan, you have to offer wheat, oats, barley or millet, but you know that the Võserikud still owes money to Mäetipu farm and there is not much hope of getting this loan back from them this year.

### **2. Stseen - Summer**

There are bad stories with grain stocks. Now you have to plant your stocks in your field and also decide whether to sell your grain to Mäetipu farm and / or lend to Võseriku farm? When you plant, lend to the bushes, and sell to the top of the mountain, all your seed supplies are exhausted and all hope is for the autumn harvest.

### **3. Scene – Autumn -Winter**

The mill has no work, all the grain is out and hunger is pinching. The sons Otto and Sass have decided that they want to go across the sea either by city or by boat - in any case far from this depressing place. Allow them to go?

### **4. Scene - Spring**

Otto and Sass left (either secretly disappearing one night or with prior approval) and for a long time nothing was heard from them. But now the postman brought them a big bag full of seeds! Now you have to decide whether to share your seeds with other villagers, put together a bunch or keep everything to yourself ...

### **5. Scene - Summer**

Your family was full of typhus, and by some miracle, you all managed to survive. For several days now, you have been arguing among yourself as to whether the village should accept the family that knows where it comes from and maybe bring a new wave of disease. Common sense says that no strangers should be allowed here, but since you have experienced for yourself how close death can be, you do not want this experience for anyone else, and although everyone has little food, the refugees in this village would at least get a warm shelter. for the winter ...

### **6. Scene - Autumn**

Otto and Sass have come from the city and want to go to a big demonstration, where the government is demanding money and food to be distributed to people. They have already managed to invite other young men and boys from the village of Suure-Kaalika, and Mäetipu Madis is also coming, but his father Villem is very opposed to it, fearing that the boys may die or be imprisoned during the rebellion. He wants the sons to return home instead and help the family prepare for the winter, but the brothers find that they get a salary in the city for their work, which is more important to send to the family.

### **7. Scene - Winter**

Letter from town

### **8. Scene - Spring**

Village meeting

## **TEESERVA FARM**

### **1. Scene - spring**



Spring brings different goods to the store again, people are starting to be interested in things other than groceries. You have been offered a good price of white muslin and southern wine, you have to decide if such things could be sold in your village. In addition, you should consider planting oats on your small plot of land, the seeds of which you have collected, or millet, the seeds of which you should buy from Veskiveere Farm. You get good money for both and you don't think about wheat, because Veskiveere's people sow it anyway and then bring it to the store for sale.

## **2. Scene - Summer**

Due to bad weather, grain prices have already risen. You need to decide whether to order more flour and dry matter at the current price or expect better prices. You will have enough money, but you should also re-sow in your field to insure yourself against the winter.

## **3. Scene – autumn-winter**

Your family will do better than the majority of the population of Gingerbread. You will continue to eat in your cellars and the store will still bring in money. The village elder went to see if you could donate some food to the Shrubs - on the one hand, you have enough to share, but on the other hand, you don't understand how the Shrubs can't manage to feed themselves.

## **4. Scene - spring**

There are fewer items left in the store, can you order more or how can you cope?

## **5. Scene - summer**

Your family was full of typhus, and by some miracle, you all managed to survive. For several days now, you have been arguing with each other over whether the village should accept a family who knows where they are coming from and maybe bring a new wave of illness. Common sense says that no strangers should be allowed here, but since you have experienced for yourself how close death can be, you do not want this experience for anyone else, and although everyone has little food, the refugees in this village will at least get a warm shelter. for the winter ...

## **6. Scene - Sūgis**

Your family was full of typhus, and by some miracle, you all managed to survive. For several days now, you have been arguing with each other over whether the village should accept a family who knows where they are coming from and maybe bring a new wave of illness. Common sense says that no strangers should be allowed here, but since you have experienced for yourself how close death can be, you do not want this experience for anyone else, and although everyone has little food, the refugees in this village will at least get a warm shelter. for the winter ...

## **7. Scene - winter**

A letter from town

## **8. Scene - spring**

Village meeting

# **VÕSERIKU FARM**

## **1. Scene - Spring**

Winter was hard for you, as always. You have not been able to pay off your last debt to Mäetipu Farm, but now it would be necessary to borrow again so that something can be sown in the field. You drove all the seeds of last summer in the winter so as not to starve. You are waiting for an answer from Mäetipu farm, from which you asked for money, and from Veskiveere farm, from which you asked for seed. You need to decide whether to plant barley or millet (if you can get a loan), because you will not feed yourself and your children with wheat or oats.

## **2. Scene - Summer**

The destruction of the crop was a heavy loss for you. Your debt burden is already very high and you are afraid that other farms will soon become a villain. Maybe you can offer something in return? Are children sent to work on other farms? If so, how would you end up with your farm work? They don't help a bit either ...

## **3. Scene – Autumn -Winter**

Karl, the father of the family, has realized that he cannot feed his wife and children in this country and wants to go in search of a better life in the city. On the one hand, you can really find happiness in the city and earn money to pay off all your family debts. But on the other hand, there are a few fewer hands left in your field, and how can a family cope with children alone? The famine is already great and the family survives only thanks to the neighbors' alms ...

## **4. Scene - Spring**

Either ask someone for help and borrow grain, or go to others as a servant and leave your farming.

## **5. Scene - Summer**

Your family was full of typhus, and by some miracle, you all managed to survive. For several days now, you have been arguing among yourself as to whether the village should accept the family that knows where it comes from and maybe bring a new wave of disease. Common sense says that no strangers should be allowed here, but

since you have experienced for yourself how close death can be, you do not want this experience for anyone else, and although everyone has little food, the refugees in this village would at least get a warm shelter. for the winter ...

#### **6. Scene - Autumn**

Family father Karl wants to go to a big demonstration, where the government is demanding money and food to be distributed to people. Other young men are leaving the village, but the mother is very opposed to it, fearing that the man could die or be imprisoned during the uprising.

#### **7. Scene - Winter**

Letter from town.

#### **8. Scene - Spring**

Meeting

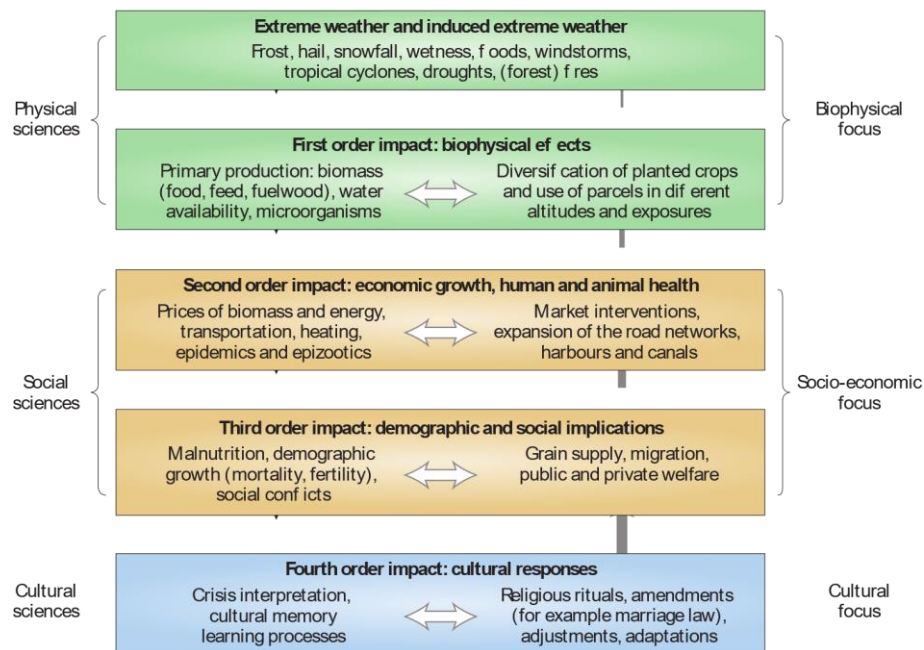
## **DEBRIEFING**

In the post-game discussion, the teacher can talk about climate change and its impact on society. What causes climate change and how does society respond to it? What caused these difficult years and stagnation?

- The volcanic eruption of Tambora in 1815 caused an unusually cold summer in 1816 in much of Europe. Extreme weather conditions led to crop failure and malnutrition, but also showed how people are adaptable and whether and how they help others in worse conditions.

A good example to discuss this topic in more detail is the 2015 article “The year without a summer” published by Nature Geosciences. The article can be found at [https://www.researchgate.net/publication/274312527\\_The\\_year\\_without\\_a\\_summer](https://www.researchgate.net/publication/274312527_The_year_without_a_summer)

The figure below helps to discuss the interplay between climate change and societal processes.



**Figure 2** | Climate and societal interactions. This model<sup>1</sup> captures the way extreme climate events can cascade through society (black arrows), and the adjustment and/or adaptation strategies societies can respond with (grey arrows). Figure adapted with permission from ref. 13, © 2015 Schwabe.

## EXTRAS

1. Newspaper clip
2. Letter in the city

NB! Extras must be printed on a separate piece of paper for the game. Letter from the city 1 copy and newspaper clippings for all game groups.

# Suure-Kaalika Gazeta

## The apocalyptic world in creation

**The constant twilight and cold also affected people. For both the human psyche and art.**

**Pidev hämarus ja külmus avaldas mõju ka inimestele. Nii inimeste psüühikale kui ka kunstile.**

*David Higgins*

David Higgins The summer of 1816 is known as one of the most productive periods in the history of English literature. This was fueled by a crazy situation: the spread of famine, political unrest and disease around the world. A confusing and strange time inspired writers to create something new. In this way, Mary Shelley, who was near Geneva in Switzerland, was inspired to create the concept of Frankenstein (1812). Both Mary Shellye and her husband Lord Byron were primarily concerned about the global icing. This, in turn, led them to differing thoughts about the human communities living in the uncontrollable forces of nature and the vulnerability of the latter. In their poems and stories, an apocalyptic vision of the earth began to shine: the growing cold and darkness of resource wars, the collapse of the ecosystem, famine, and finally the destruction of all life on earth, leaving it to death. <https://theconversation.com/why-a-volcano-frankenstein-and-the-summer-of-1816-are-relevant-to-the-anthropocene-64984>



## A year without a summer

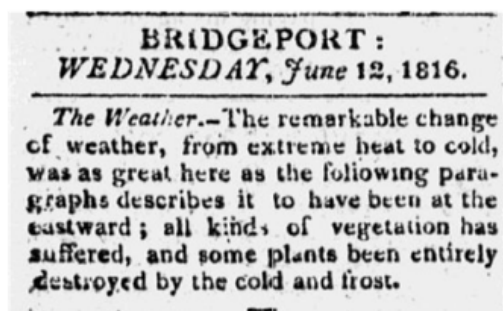
**On April 7, 1815, the most powerful volcanic eruption of modern times took place. The eruption of the Tambora volcano on the Indonesian island of Sumbawa lasted from 10 April to 15 July.**

*Wikipedia*

On April 7, 1815, the most powerful volcanic eruption of modern times took place. The eruption of the Tambora volcano on the Indonesian island of Sumbawa lasted from 10 April to 15 July. As a result of the eruption, a huge diameter crater formed on the island and the surface of the island fell by more than 1200 m. As a result of the eruption, such a large cloud of dust was released into the atmosphere that it caused a global drop in temperature. The explosion mainly affected the immediate neighborhood. Volcanic ash rains were the heaviest on the islands of Bali and Lombok. About 92,000 people died from lava flows and the hunger and disease that followed the explosion. The eruption of 1815 was one of the largest global catastrophes in known human history, killing tens of thousands of people as a direct result, and has gone down in history as a "year without summer" due to short-term climate change caused by volcanic ash.

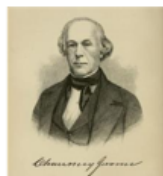


## Letter from the past



## Memories from the summer 1816.

Chauncey Jerome



In June, there was such a cold wind that "most of the people outside wore coats and needed a constant fire. (Chauncey Jerome, a watchmaker living in Plymouth, wrote years later: "I remember well June 7. When I was at work, I was about a mile from home, in full thick woolen clothing. On June 9, Robbins observed that "the cold and wind continue. The last three days have been exceptionally bad. I remember it was June and it was said that there was snow on the bottom last Thursday." .... On June 10, Chauncey Jerome's wife "brought in clothes that had been scattered on the ground the night before and froze rigidly like in winter." Source:

<https://connecticuthistory.org/eighteen-hundred-and-froze-to-death-1816-the-year-without-a-summer/>



## In the music

No one understood what was happening to the climate at the time: it was not until the 1960s that scientists were able to explain the causal link between volcanic activity and the weather. Many people feared that the world was facing its apocalyptic end, which the Astronomer of Bolognese confidently predicted by July 1816, and which was depressedly reflected in Byron's poem "Darkness", which was conceived the same month by Lake Geneva during a particularly bad storm. The gray and sunless year was also influenced by art and music. Depression affected creation. Also about the states of mind of the famous composers Beethoven and the younger Schubert, the mark of music has been left behind in history. Source:

<https://www.theguardian.com/music/2016/jun/16/1816-year-without-summer-dark-masterpieces-beethoven-schubert-shelley>

## A year without summer created masterpieces

The world of art changed in 1816. The paintings representing the brightest sky in the European landscape became darker. Artists of that time did not understand why, but what they were trying to portray was darker than before. Dawns and sunsets, which were the main centers of their art and gave light and hope, became darker and darker. Shows a feeling of eternal darkness, even in sunlight or moonlight. Turner, John Crome, Caspar David Friedrich, and many other artists depicted changes in the atmosphere in their work, but also showed how people's lives were forced to continue in dark conditions. In their landscape paintings, themes such as agriculture, religion and shipping came to the fore, which later became important in northern Europe for these cold times. Source:

<https://philologiavt.org/articles/10.21061/ph.173/>



*Hello my dears!*

*I'm doing as I did last month. The room where I take shelter with one young man is cold and humid, but I try not to complain. It's good that I found a place for that. I try to be a little helpful in the bakery, but it seems that I don't share this joy for a very long time. Yesterday I went to the port. I heard it said that a couple of captains are again planning to sail across the Atlantic and are looking for a team. The work is hard and I don't know if I will get across the ocean and if I will ever get back from there, but I wrote down my name.*

*The city is still typhoid and people are scared. There are often riots and insane people living on the streets. A week ago, my roommate, who was still healing, was abducted.*

*People say that ships that are supposed to have cheaper grain are coming soon from the north. I know the spring joint grain purchase failed, but maybe it's worth thinking about?*

*With love, XXX*