

## 9.1 WHAT HAPPENS IF WILDFIRES DISAPPEAR IN THE WORLD?



### Aim

To better understand the relationship between wildfires and the landscape configuration. Discover that some landscapes and ecosystems are fire-dependent, and without wildfires, the ecosystem would not be the same. Others are fire-independent and fire-sensitive, where the interactions between fire and the ecosystems, differ from fire-adapted and dependent ecosystems.

### Description

Wildfires shape our landscape and help to maintain and preserve favourable habitats that can support the survival of diverse species ensuring ecological balance. Fires also have important ecological functions that contribute to the overall health and diversity of forest ecosystems.

In this challenge, we invite you to explore a future without wildfires to understand how much change would occur in our ecosystems.

### Linked units

- Unit 1: Understanding your environment and connecting it to climate change impacts
- Unit 2: History of wildfires
- Unit 3: Fire ecology I
- Unit 4: Fire ecology II
- Unit 5: Living wildfires as a global reality I Resilient landscapes
- Unit 9: Aftermath of a wildfire

### Type of results

- Debate with opposing positions
- Game
- Game tournament

### Material you may need

- Game (design software )

### Activity: Exploring scenarios

Tasks:

1. Start researching ecosystems in relation to wildfires. Notice that it is common to classify them into fire-dependent ecosystems, fire-sensitive ecosystems, and fire-independent ecosystems. Let's explore each of these categories and their respective relationships with wildfires through a class activity (literature review, collaborative research, preparing presentations and communications) for assessing the impact of wildfires in our ecosystems. To guide the research activity, you can follow these steps (groups):

Literature Review:

Make a literature review on the topic of ecosystems and wildfires, focusing on the classification of ecosystems based on fire dependency and sensitivity.

You should search for scientific articles, books, and reputable online sources that provide information on the impact of wildfires on different ecosystems.

Collaborative Research:

Make groups and assign each group one of the ecosystem categories (fire-dependent, fire-sensitive, fire-independent).

Each group gathers information about specific ecosystems within their assigned category, focusing on how wildfires affect them, their adaptations to fire, post-fire regeneration processes, and ecosystem recovery patterns.

c) Presentation and Communication:

Each group prepares a presentation summarizing their findings and highlighting the key aspects of their assigned ecosystem category.

Use visuals, such as maps, graphs, and images, to enhance presentations.

Organize a class session where each group presents their research to the rest of the class, fostering discussion and knowledge sharing.

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### Scope of impact

- Classroom
- Household
- Educational centre
- Community

### Professions related to the topic

- Gamifier
- Polity maker
- Facilitator

2. At the end of the presentation and communication you should summarize all the aspects that would change if wildfires were to disappear in each type of ecosystem. (class)

3. Discuss why some areas are more prone to wildfires and why it's essential to design communities that can withstand these natural disasters. Divide the students into small groups. Provide them with pictures of different landscapes, plants, and wildfire-resistant features (like agroforestry mosaic, defensible space, etc.). Ask each group to choose a landscape and research about the types of wildfires that occur there and propose potential strategies for resilience (group).

4. In groups, you will create a board game about the wildfires and resilience landscape issue. The board game could be an adaptation of an existing game (trivial, donut of word, virus, Sushi go, game of goose...) or an invented game. How to do: use cardboard as the game board. students can draw a forest landscape on it, including trees, animals, rivers, and spaces for challenges. You should also create a path for players to follow.

You can create different types of game spaces by groups that players will land on, such as "Safe Zones," "Wildfire Zones," "Help Animals," "Answer a Question," etc. Groups can decorate each space with relevant images and symbols. Design Challenge Cards: for example, a challenge card could ask players to answer a question about fire safety or to help an animal escape a wildfire. Work together to establish the game rules. (group).

5. The board games could be used by other classes or courses to transfer the knowledge learned. Also, a copy could be done for the municipal library, or organise a game tournament in your neighbourhood.