Lesson Plan: Climate Change Impacts in Montenegro

As a **High School** or introductory **Undergraduate** teacher, you can use this lesson plan to **introduce climate change and its impacts in Montenegro**.

This lesson plan provides an introduction to climate change, causes and impacts of climate change globally, climate change risk profile for Montenegro that includes climate impacts on major sectors of the country such as agriculture, livestock, water resources, human health and industries.

Thus, the use of this lesson plan allows you to teach Climate Science and Climate Change in your classrooms.

Use this Lesson Plan to help the students to understand and find answers to:

- 1. What is Climate Change? What are its causes?
- 2. What are the impacts of climate change on Montenegro?
- 3. What are the impacts of climate change on agriculture, livestock, water resources, human health and industries?
- 4. What mitigation practices can be adopted to control the impacts of climate change in Montenegro?

About the Lesson Plan

| Grade Level | High School, Undergraduate |
|------------------------------|--|
| Climate Topic | Climate Change Impacts in Your Country |
| Location | Europe, Montenegro |
| Access | Online |
| Language(s) | English |
| Approximate Time Required | 60 mins |

Contents

| Reading (15 min) and Video (5-15 min) | A reading from the NASA Global Climate Change website that includes information about what is the scientific evidence for climate change, causes, and impacts of climate change. This can be accessed here . |
|---|--|
| | Optional : A set of 7 short video micro-lectures (2-5 minutes in length) on climate change and global warming developed by the National Research Council, The National Academies of Sciences, Engineering, and Medicine. This can be accessed here |
| Reading 1 (World Bank) | A reading by Climate Change Knowledge Portal of the World Bank that explains climate change and impacts in Montenegro. This can be accessed here . |
| Classroom/Lab oratory Activity (15 min) | A classroom/laboratory activity based on a reading and video on Montenegro. This reading and video explains the causes and impacts of Montenegro on Montenegro and also states the possible solutions to counter the crisis. The reading can be accessed here. |

| Reading (15 min) and Video (5-15 min) | A reading from the NASA Global Climate Change website that includes information about what is the scientific evidence for climate change, causes, and impacts of climate change. This can be accessed here . |
|---|--|
| | Optional : A set of 7 short video micro-lectures (2-5 minutes in length) on climate change and global warming developed by the National Research Council, The National Academies of Sciences, Engineering, and Medicine. This can be accessed here |
| Reading 1 (World Bank) | A reading by Climate Change Knowledge Portal of the World Bank that explains climate change and impacts in Montenegro. |
| (Voria Bank) | |
| | This can be accessed <u>here</u> . |
| | The video can be accessed here. |

Step-by-step User Guide

(Here is a step-by-step guide to using this lesson plan in the classroom/laboratory. We have suggested these steps as a possible plan of action. You may customize the lesson plan according to your preferences and requirements.)

| have been developed by the National Research Council, The National Academies of Sciences, Engineering, and Medicine. This can be uprovide additional information on climate change. They include: 1. What is Climate? Climate Change, Lines of Evidence Change. 2. Is Earth Warming? Climate Change, Lines of Evidence Change. 3. Greenhouse Gasses. Climate Change, Lines of Evidence Change. 4. Increased Emissions. Climate Change, Lines of Evidence Change. 5. How Much Warming? Climate Change, Lines of Evidence Change. | 1 | Introduce Climate Change through the readings and videos | This reading titled, "The Causes of Climate Change" from the NASA Global Climate Change website, provides introductory information on climate change and global warming. It contains information on the scientific evidence of climate change, its causes and impacts. |
|---|---|--|---|
| 1. What is Climate? Climate Change, Lines of Evidence Cha 2. Is Earth Warming? Climate Change, Lines of Evidence C 3. Greenhouse Gasses. Climate Change, Lines of Evidence C 4. Increased Emissions. Climate Change, Lines of Evidence 5. How Much Warming? Climate Change, Lines of Evidence 5 | | | Optional: This set of 7 short video micro-lectures (2-5 minutes in length) have been developed by the National Research Council, The National Academies of Sciences, Engineering, and Medicine. This can be used to provide additional information on climate change. |
| | | | What is Climate? Climate Change, Lines of Evidence Chapter 1 Is Earth Warming? Climate Change, Lines of Evidence Chapter 2 Greenhouse Gasses. Climate Change, Lines of Evidence Chapter 3 Increased Emissions. Climate Change, Lines of Evidence Chapter 4 How Much Warming? Climate Change, Lines of Evidence Chapter 5 Solar Influence. Climate Change, Lines of Evidence Chapter 6 Natural Cycles. Climate Change, Lines of Evidence Chapter 7 |

| | 2 | Discuss causes and | Use this interactive website by the Climate Change Knowledge Portal of the | | |
|-----|---|----------------------------------|---|--|--|
| | _ | impacts of Climate | World Bank to have your students understand the impacts of Climate | | |
| | | Change in Montenegro | Change in Montenegro. This resource includes the following: | | |
| | | 3 | I. Climate Change Overview of Montenegro | | |
| | | | II. Country Summary | | |
| | | | III. Current Climatology: Climate Trends and Variability in | | |
| | | | Temperatures and Precipitation | | |
| | | | IV. Climate Projections | | |
| | | | V. Vulnerability of Montenegro to Climate Change | | |
| | | | | | |
| | | | Each section contains relevant climate change information including data, projections, and visualizations. The data is visualized through interactive graphs and users can select different indices, model projections, timescales, and sectors to better understand the impacts of climate change in Montenegro. This can be accessed here . | | |
| ŀ | _ | OPTIONAL | You may wish to conduct a {roleplay} activity in your classroom/laboratory | | |
| | 3 | OPTIONAL Classroom/Laboratory | to further engage your students in understanding the climate crisis in | | |
| | | Activity on the 'Lake | Montenegro; specifically on the impact of climate change on food security | | |
| | | Chad Crisis' | and water security in Montenegro. | | |
| - 1 | | | , , | | |

Learning Outcomes:

The tools in this lesson plan will enable students to:

- learn about climate change and global warming
- understand the impacts of climate change in Montenegro
- discuss how changing weather patterns due to climate change could affect Montenegro's future
- describe the current and future health risks and economic impacts on Montenegro due to climate change

Additional Resources

| mitigating Climate Change by Montenegro. | 1 Reading | Intended Nationally Determined Contribution, Montenegro: This report provided by UNFCCC is a submission of commitment towards mitigating Climate Change by Montenegro. |
|--|-----------|--|
|--|-----------|--|

Credits / Copyrights:

| 1 | Reading "The Causes of Climate Change" | by the <u>NASA Global Climate Change</u> website |
|---|---|--|
| 2 | A set of videos; "Climate Change: Lines of Evidence" | Presented by National Research Council, <u>The National Academies of Sciences, Engineering, and Medicine</u> |

| 3 | Reading "Climate Change Risk Profile for Montenegro" | By <u>Climate Change Knowledge Portal of the World Bank</u> |
|---|---|---|
| 4 | Additional Resources | Intended Nationally Determined Contribution, Montenegro |