2023 Current Issue: Adapting to a Changing Climate

Adapted to CO Envirothon[1]

Key Topic 1: Factors Contributing to a Changing Climate

1. Describe climate change and the process through which it occurs.
2. Outline the factors, both anthropogenic and natural, which influence climate and climate change.
3. Describe the major economic sectors that contribute to greenhouse gas (GHG) emissions.
4. Describe major energy sources and explain how each contributes to climate change.
5. Outline indicators of climate change.

Key Topic 2: Measuring and Monitoring a Changing Climate

1. Describe the history of international collaboration on climate change and analyze the successes and shortcomings.
2. Describe the various sources of scientific data which are used as evidence of climate change and explain how we know this data to be reliable.
3. Evaluate climate data and draw conclusions based on that data.
4. Explain the use of modelling in forecasting climate and the sources of uncertainty in climate

Key Topic 3: Risks and Impacts to Natural Resources and Society from a Changing Climate

1. Explain the consequences of climate changes on aquatic, forest, wildlife and soil ecosystems.
2. Describe the social and economic impacts of climate change.

Key Topic 4: Policies and Programs for Adapting to a Changing Climate

1. Explain how various levels of government, non-governmental organizations, and individuals are involved in mitigating and adapting to climate change at the local, national, and international levels.
2. Describe innovative technologies and programs designed to combat climate change.
3. Explain the importance of primary resource sectors (forestry, agriculture, fisheries) to the economy of Colorado.
4. Describe the unique challenges faced by regions largely dependent on primary resources, and how climate change influences these challenges.
5. Explain how to best apply climate change risk assessment and adaptation measures in regions with primary resource dependent economies.

[1]Adapted for CO Envirothon from National 2023, B. Berlinger