

Check your understanding

- 1 What effect might the increased temperatures in the high altitudes of the Himalayas have on the surrounding countries?
- 2 What are the most important mountain ranges in the US? What possible effects do you think that EDW could have on the US?
- 3 In our conclusions, we mentioned some things that you could do to help reduce carbon emissions. Can you think of any others? What's the one thing that you think you could do that would have the biggest impact?
- 4 Many children live among the Himalayan Mountains, going to school, playing, and working more than 3 miles above sea level. What do you think life would be like for those children? How do you think it would differ to your own life?

The Himalayas are a huge water source. They supply many of the world's great rivers including the Yangtze, Ganges, Indus and Mekong that provide water to over a billion people. If rising temperatures cause the ice to melt faster, there is high risk of flooding as dams and barriers break from the increased weight of the water.

- 1 In the long-term, as less water is stored in the ice and snow, the rivers would become smaller and would not be able to provide water to as many people.

There is also a risk that the worldwide melting of land-based ice would cause sea levels to raise (this refers to Antarctica, Greenland and mountain glaciers, NOT sea ice). As many people live in low-lying coastal regions, it could put these people's lives in danger.

2

Elevation-dependent warming is occurring in all mountains of the world, including in particular the US Rocky mountains. Understanding the processes that cause it will allow us to make better predictions for the future and to study how to deal with the consequent impacts on nature, water availability, flooding risks.

Climate changes in the mountains of one continent can also have the ability to shift weather patterns on a global scale. The research that climate scientists carry out will help to predict what these shifting weather patterns will look like.

3

Answer – open.

Beyond thinking of changes that kids can make themselves (changes in what and how they buy, how they keep themselves warm and cool, how they move from one place to another), encourage them to think about things they can do on a larger scale.

This might include:

- Campaigning for renewable energies,
- Studying science, math, technology or politics so that they can become scientists / mathematicians / design low emission technologies / become politicians and influence policies
- The possibilities are endless to be a part of the solution!

4

Answer – open.

Encourage kids to think about, and do some research into what their homes might be like, what they might eat, how they get their food, what crops their families might grow, how they get to school, what transport they might need...