

Name \_\_\_\_\_

## Weather Wonders: Unraveling the Mysteries of Extreme Events

### Short Answer Key

1. Orographic lifting occurs when moist air is forced to rise over a mountain range. As it rises, it cools, leading to condensation and rainfall on the windward side of the mountain. The leeward side, or rain shadow, is often dry due to descending air.
2. El Niño is associated with warmer ocean temperatures and can bring heavy rainfall and flooding. La Niña is associated with cooler ocean temperatures and can lead to droughts in some regions.
3. The urban heat island effect is the phenomenon where urban areas with concrete and asphalt absorb and retain heat, causing higher temperatures compared to surrounding rural areas. It contributes to higher temperatures during heatwaves in cities.
4. Climate change can increase the frequency and severity of heatwaves and droughts by raising global temperatures. It can also alter atmospheric circulation patterns, influencing weather events.
5. Possible actions include improving building insulation, planting heat-resistant trees, and developing emergency response plans for extreme heat events.

