

Expert Group Topics of Discussion: Atmosphere and Ocean Movement

Topic #1

What are some specific examples of evidence to show the Earth's surface absorbs energy from the Sun?

Topic #2

Explain the organization of the atmosphere including layers, temperature and composition.

Topic #3

Explain why the Earth does not freeze at night. What is the evidence to support your answer?

Topic #4

If about 500,000 km³ of water on Earth evaporates and about 110,000 km³ of that water falls back to the land as measured precipitation, what happened to the other 390,000 km³ of water?

Topic #5

What would happen to the Earth if the atmosphere was half of its current density (in terms of thermal energy transfer)?

Topic #6

Even with the protection and blanket of the bubble of our atmosphere, some latitudes of Earth are much colder or much warmer than other latitudes. What causes this to be true despite the protection of the atmosphere?

Topic #7

How does atmospheric convection interact with ocean convection? What is the measured impact we can observe about this interaction?

Topic #8

How does the proximity to an ocean impact the wind on land? Does the land have any impact on the water?

Topic #9

Explain how & why downtown areas are almost always warmer than surrounding suburban areas. Include causes, effects, and future implications.

Topic #10

Identify & explain why western European weather is more like north Texas instead of along a similar latitude in Canada.