Warmth of the Sun

Why is the Earth hottest when it is furthest from the sun and coldest when it is closest? This is not due to the distance between them, but to the topography of the Earth. There is more land in the northern hemisphere than in the southern, which has more water. Land has a low specific heat capacity, meaning that only a small amount of energy from sunlight is needed to raise its temperature. A desert, for example, can be very cold at night, but become unbearably hot soon after dawn. In contrast, the specific heat capacity of water is high, so a lot of sunlight is required to make it warmer, and the temperature of the sea may vary only a little between day and night.

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This is why our planet is warmest in July, when the continents in the northern hemisphere receive more sunlight, raising the average temperature of the entire Earth. The opposite happens in January; the oceans of the southern hemisphere face the sun, whose light warms them only a little, lowering the temperature of the entire planet even while it is closest to the sun.

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If the temperature of the Earth is not determined by its distance from the Sun, what is it determined by?

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Which changes temperature most between day and night, the land or the sea?

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During what month is the Earth warmest?