Title: Clouds & Earth’s Climate - Dr. Patrick Taylor video - Questions

Student Sheet

1. Check with your instructor on how to submit your answers.

2. How much has Earth’s mean surface temperature warmed over the last 130 years?

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3. How does the CERES (Clouds and the Earth’s Radiant Energy System) project produce global climate data records of Earth’s energy budget and clouds?

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4. Why is Earth’s energy budget important for climate?

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5. If less sunlight is absorbed than infrared energy is emitted to space, what will the effect be on Earth’s temperature?

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6. If more sunlight is absorbed than infrared energy is emitted to space, what will the effect be on Earth’s temperature?

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7. According to the CERES data, which regions lose the most energy to space?

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8. Where is the least infrared energy lost to space?

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9. According to the CERES data, which areas have the least reflected sunlight?

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10. Where are the areas with the most reflected sunlight?

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11. What are two possible effects that clouds have on the energy budget?

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12. Why does NASA study clouds and their role in Earth’s energy budget?

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