Key concept: Greenhouse gases: Worksheet 9.5

The greenhouse effect

Use the data below to label the diagram (using the numbers **1**–**7**) to show how the greenhouse effect works.

**1** The Sun releases energy.

**2** Most of the solar energy that reaches the Earth passes straight through the atmosphere – it has a **short** wavelength.

**3** Solar energy warms the Earth’s surface.

**4** The energy that reaches the Earth’s surface is from the ultraviolet, visible and near infrared parts of the spectrum.

**5** The warm Earth emits infrared radiation with a **longer** wavelength.

**6** Some infrared radiation is absorbed by greenhouse gases and warms the atmosphere.

**7** Adding greenhouse gases could reduce the amount of radiation that escapes.

