

luminosity measurements cd candela



All nations on Earth have agreed to measure things using the International System of Units (SI).

The candela in this system is used to measure how bright lights are.

A wax candle emits light with a luminous intensity of roughly 1 candela.



Other units of light measurement

The **candela** is used to measure how bright lights appear to human beings.

The **lumen** is used to measure the total amount of useful light emitted by a lamp. Lamps with more lumens give out more light. A desk lamp emits about 100 lumens and creates a bright area for working. A larger room might need 2 000 lumens to create the same level of brightness.

How do we measure light level?

We use photometers, which can be specially adapted cameras.

Your school may have a data logger to measure light intensity.

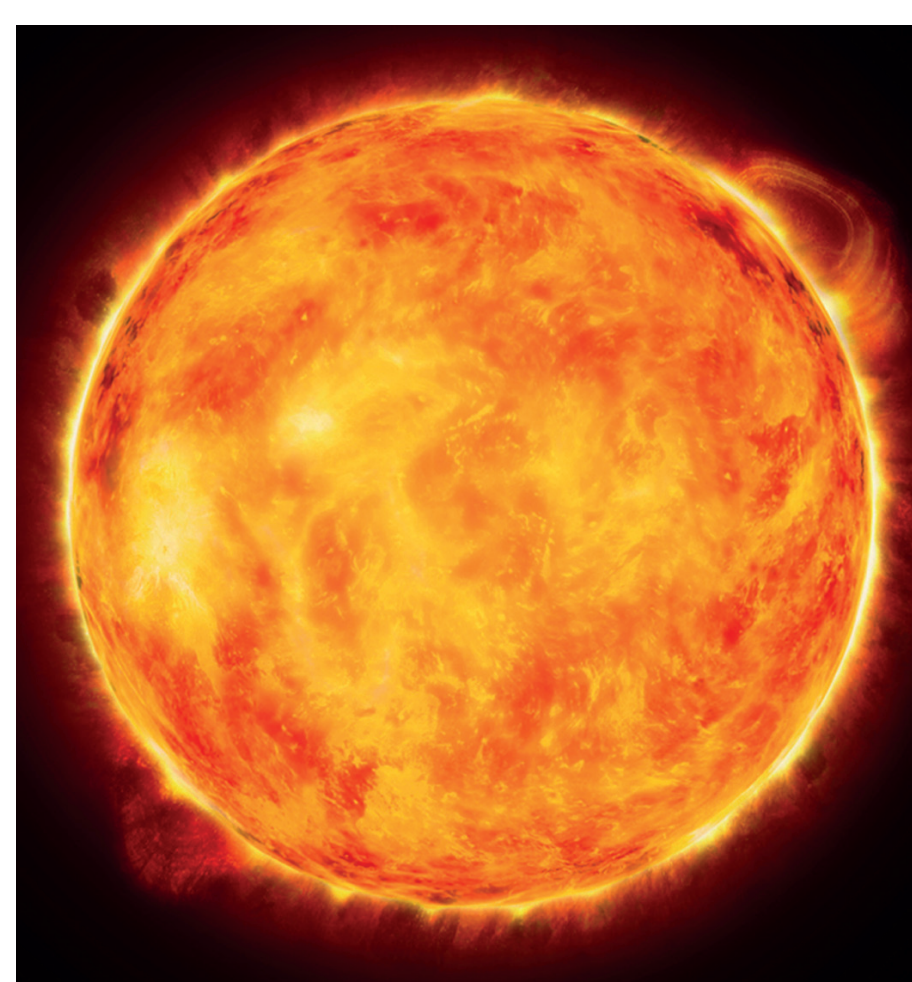


Challenge:

Put the following in order of brightness, dimmest to brightest.



Computer, phone or tablet screen



Sun's surface
The Sun is too bright to look at directly



Deep sea luminous fish
About 50% of deep sea fish give out light



Light bulb
About 18% of UK electrical power is used by lighting

Did you know?

Animals see the light spectrum differently (so the candela is designed just for humans).

LED light bulbs use less electricity and last longer than older types of the same brightness.

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