



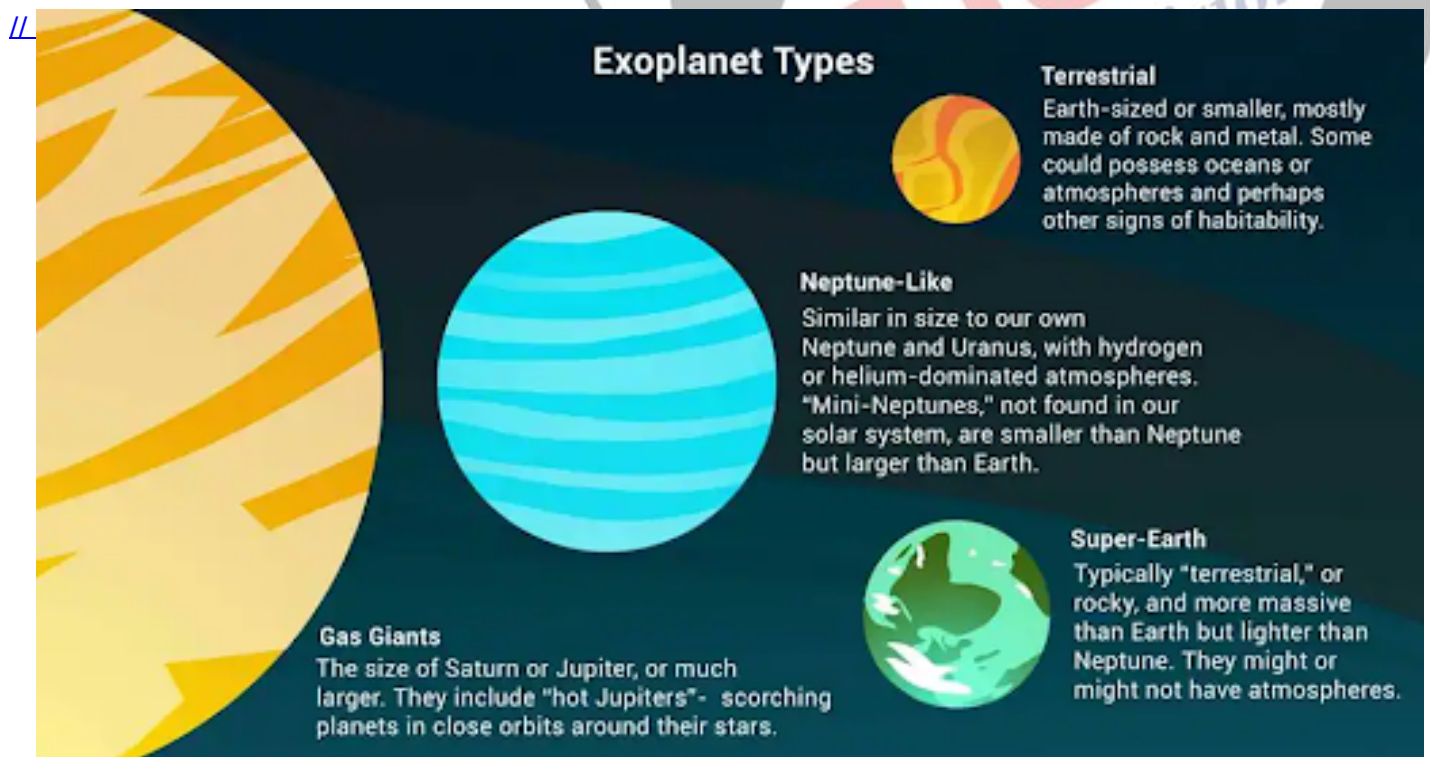
## WASP-121b Exoplanet

[Source: Earth](#)

Astronomers have mapped the **3D atmosphere of exoplanet WASP-121b (Tylos)**, located **900 light-years** away, using the [ESO's VL Telescope](#), revealing **complex weather patterns and chemical composition**.

**WASP-121b (Tylos):**

- It is a **gas giant exoplanet** discovered in **2016**, orbiting the **yellow-white F-type star WASP-121**.
  - It has a size **1.87 times that of Jupiter** and a **mass 1.18 times greater**.
- **Type:** It is an **ultra-hot Jupiter** (a gas giant orbiting its host star very closely), with an **orbital period of just 30 Earth hours**.



**Key Findings:**

- **Extreme Climate Conditions:** **WASP-121b** has extreme temperature contrasts due to **tidal locking**, with one hemisphere scorched and the other cooler, driving **dynamic atmospheric patterns**.
- **Jet Streams and Wind Patterns:** Powerful jet streams and winds with speeds, creating distinct atmospheric flows.
- **Chemical Composition:** Its atmosphere comprises iron, sodium, hydrogen, and titanium, with **3**

**distinct layers: iron winds at the base, a fast sodium jet stream, and hydrogen winds at the top, shaping its unique climate.**



**Read More: [Detection of Barium in the Exoplanet Atmospheres.](#)**

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