



# KRYPTON

*Designated: Survey World, Terraform Relict-Class*

*Average Temperature:  $-20^{\circ}\text{C}$  | Atmosphere: Oxygen-Ammonia Mix | UWP: A9A49BC-A |*

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## Overview

Krypton is a high-gravity, cold terrestrial world with a uniquely stratified climate and a deeply layered history of terraforming, collapse, and cultural rebirth. Once host to an ancient alien project of unknown scope, the planet retains fragments of that ambition—oxygen-rich equatorial zones, abandoned terraformer infrastructure, and a thriving, if cautious, biosphere. Home to the Kryptonians—engineered or adapted humans—the planet presents a study in survival against entropy, and the triumph of stoic governance over charismatic chaos.

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## Climate and Atmospheric Structure

Krypton's climate is driven by the interplay of three distinct and semi-independent atmospheric systems. These form bands of alternating habitability and danger across latitudes and seasons:

### 1. Water-Based Equatorial Weather Cycle

Localized to the equator, where daytime temperatures sporadically exceed  $0^{\circ}\text{C}$ , this system is fed by hypersaline liquid water. Rainfall, salt fogs, and dense low clouds occasionally form, though high salinity suppresses widespread evaporation. The result is a sluggish but stable ground-locked hydrological pattern, thermally driven and seasonally active.

## 2. Ammonia-Based Atmospheric Cycle

More dynamic is the global ammonia cycle, enabled by ammonia's low boiling point ( $-33^{\circ}\text{C}$ ). Volatile near the equator, ammonia vapor rises into the mid-atmosphere and is carried poleward, condensing into frost, sleet, or noxious fogs as it cools. This ongoing process creates persistent toxic weather events, especially at mid and high latitudes.

## 3. Seasonal Ammonia Transport System

Driven by axial tilt and solar input, ammonia behaves monsooonally—evaporating en masse during summer and snowing out during polar winters. These seasonal shifts produce violent interhemispheric storms, laden with caustic ammonia sleet and frigid wind shears. These storms, while predictable, shape Kryptonian infrastructure, migration, and ritual life.

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## Habitability and Survival Conditions

While space suits are not required for surface survival, Krypton presents significant environmental hazards:

- **Ammonia Toxicity:** Inhalation of ambient ammonia vapors, particularly above 300 ppm, is dangerous and often fatal ( $>1000$  ppm). Kryptonians exhibit a quadrupled tolerance threshold, likely due to ancient bioengineering. Visitors must use sealed respirators or rebreathers, often combined with activated carbon or acid-neutralizing filters.
- **Chemical Burns:** Ammonia fogs and rain irritate eyes and mucous membranes and corrode unprotected skin. Full-face protection and minimal chemical-resistant clothing are advised.
- **Thermal Exposure:** With mean temperatures near  $-20^{\circ}\text{C}$ , thermal layering and active insulation are essential for unmodified humans. Locals use cured hides and biofiber textiles from native flora and fauna.

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## Planetary Formation and Terraforming Legacy

Astrochemical models suggest Krypton formed in the colder outer regions of its system, rich in reducing compounds such as methane, ammonia, and hydrogen. Free oxygen, being chemically reactive, would not persist in its primitive atmosphere without external influence.

The planet's partially oxygenated atmosphere is thus widely considered the result of terraforming. Ancient alien intervention—possibly by the Ancients—introduced liquid water (perhaps by cometary seeding) and oxygen-producing organisms, or deployed massive

atmospheric processors. However, this effort appears incomplete: oxygen prevails only in certain bands, while ammonia cycles remain dominant elsewhere.

Kryptonian civilization maintains and, in many cases, reverse-engineers these systems, preserving fragments of their world's artificial past.

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## Biosphere and Ecology

Krypton's biosphere is a mosaic of adapted Earth-derived life, engineered species, and residual ammonia-based extremophiles isolated to the deep polar zones. Agriculture favors warm-brine crops and cold-tolerant herd animals derived from goats, yaks, or lab-grown analogs. Biotechnological industries make limited use of native extremophiles for industrial solvents and metabolic substrates.

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## Kryptonian Culture and History

### Timeline Highlights

Time	Development
500,000 YA	Ancients terraform Krypton; kill native bacteria. Seed mutated Earth life & engineered humans (Kryptonians).
300,000 YA	Ancients vanish. Terraforming machines break down or go dormant. Major die-offs follow.
280,000–20,000 YA	Stone Age. Adaptation to gravity, ammonia exposure, and severe cold. Cave dwellings, brine-bubble fishing, and fire in chemically sealed hearths.
20,000 YA	Agriculture emerges—domestication of warm-brine plants, cold-resistant herd animals (mutated from primarily goats & yaks).
8,000 YA	Renaissance. Invention of glassware, early chemistry, large-scale architecture, and cold-resistant masonry.
8,000–3,000 YA	Dark Age of high art and frozen philosophy—technological stagnation but cultural flourishing. Ritualized city-states form.
3,000 YA	Discovery of terraformer ruins. Scientific curiosity reemerges and technological progress begins again
2,500 YA	TL 4 achieved after 85-year war unifies planet. World government forms.

Time	Development
2,400–1,000 YA	Tech improves gradually. TL 5–9 reached. Cities expand up and deep. Grav architecture blossoms. Climate partially tamed.
1,000 YA	TL 10 achieved. Sleeper ships launched ~400 years ago.
Present	Sleeper ships expected to reach nearby stars within 60 years. Cultural anxiety about interstellar future sets in.

## Gravitic Aestheticism

The prevailing Kryptonian worldview is known as *Gravitic Aestheticism*: the idea that resistance to the natural hostility of the world—cold, mass, decay—is both beautiful and moral.

Architecture, ritual, and philosophy are expressions of defiance against nature’s indifference.

Buildings rise like declarations, often into the stratosphere or tunneled into bedrock. Every structure is a statement: survival is meaning.

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## Ritual and Spiritual Life

Kryptonian rituals serve both symbolic and practical functions:

- **The Ascension Rite:** A gravity-defying coming-of-age trial. Youths climb a grav-spire without assistance, asserting mastery over their world’s most fundamental force.
- **The Vigil of Salt:** Meditative fasts held before chemical frost altars. The crystal formations, shaped by atmosphere and humidity, are believed to reflect the observer’s soul.

Religion is less a faith and more an encoding of cultural survival wisdom—respect for order, nature’s danger, and the lessons of the Ancients.

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## Governance and the Imperium of Code

Krypton's government is a non-charismatic technocracy often referred to simply as *The Code*. The system arose as a uniquely Kryptonian response to an era of chaos. The Kryptonians are stoic realists. Their worldview is shaped by survival under relentless planetary pressure—cold, gravity, chemical hostility. Over thousands of years, this bred a deep respect for order,

predictability, and functional hierarchy. Even since the earliest of recorded history, the ideal Kryptonian ruler is not an inspiring speaker but a competent, unflinching steward.

“The planet does not negotiate. Neither should those who govern.”

Because of this, charisma is viewed with suspicion. A manipulative indulgence or weakness. True leadership is silent endurance, effective logistics, and visible outcomes.

### **Emergence of the Emperor**

At the war’s close, a logistics general (later styled *Emperor One*) stabilized the planet not through rhetoric but through action and luck first calming of planetary climate systems, distributing food, and restoring order. Leadership became institutionalized as a functional, apolitical office.

The Emperor is not elected, but appointed by a technocratic board based on performance metrics. The current leader, *Emperor Twenty three*, is seldom seen, communicates through monotone bulletins, and is evaluated every five years.

### **Social Contract**

Kryptonians accept strict laws, constant surveillance, and centralized infrastructure because these are seen not as oppression, but insulation from planetary hostility. The police and authorities rarely intervene, but nearly all behavior is codified. There is pride, not fear, in the system:

“You obey the code, not the man. The code is older than any of us.”

Universal service in the Defense and Infrastructure Corps is a rite of citizenship. The DIC ensures planetary functions—grav trains, storm shielding, ammonia monitoring—operate without fail.

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## The Kryptonians (Homo Kryptonensis)

### Species Profile

- **Species Type:** Engineered Human
- **Ecological Type:** Omnivore, Hunter
- **Reproduction:** Two sexes, live-bearing
- **Size:** Medium
- **Locomotion:** Bilateral symmetry, 4 limbs
- **Engineered Traits:** Adapted to heavy gravity, cold climate, and ammonia exposure

### Environmental Adaptations

- **Cold Endurance:** Reduces damage from cold exposure.
- **Heavy Gravity Adaptation:** No acclimatization needed.
- **Ammonia Tolerance:** Resistant to ammonia exposure. (Specific tainted atmosphere)

### Senses

- **Vision:** Low-light adapted
- **Other senses:** Human average

### Physical Characteristics

- **Vision:** Low-light adapted
- **Strength:**  $2d6+2$
- **Dexterity:**  $2d6-2$
- **Endurance:**  $2d6+2$

- **Intelligence:**  $2d6$
- **Education:**  $2d6-1$
- **Social Standing:**  $2d6$  (-2 in Terran Society)

### Lifecycle

- **Starting Age:** 22
- **Aging Begins:** +20 years (DM+1 to aging effects and losses are increased by 1)
- **Average Lifespan:** ~58 years

### Height

- Males:  $140\text{cm} + 2d6 \times 5$  (avg. 5'7")
- Females:  $130\text{cm} + 2d6 \times 5$  (avg. 5'2")

### Weight

- Males:  $80\text{kg} + 2d6 \times 5$  (avg. 242kg)
- Females:  $70\text{kg} + 2d6 \times 5$  (avg. 220kg)