

# Climate Background Design Information for China

## **Tropical Climate** → City name: *Guangzhou*

Number of rainy days each year: 112

Latitude: 23° North

Altitude: 26 feet above sea level

Summer average temperature: 72 °F

Winter average temperature: 72 °F

**Engineering Challenge:** You want to engineer your house to keep the people inside dry during a very big rainstorm.

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## **Cold Climate** → City name: *Harbin*

Number of snowy days each year: 47

Latitude: 45° North

Altitude: 469 feet above sea level

Summer average temperature: 69.4 °F

Winter average temperature: 6.4 °F

**Engineering Challenge:** You want to engineer your house to keep the people inside warm during a very cold winter, and the roof must be very strong to support (and/or shed) the weight of a lot of snow.

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## **Desert Climate** → City name: *Urumqi*

Number of rainy days each year: 36

Latitude: 47° North

Altitude: 2844 feet

Summer average temperature: 73 °F

Winter average temperature: 5 °F

**Engineering Challenge:** You want to engineer your house to keep the people inside cool during a very hot summer.

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### **Your house should have:**

- 1 or 2 bedrooms
- 1 bathroom (which can be outside)
- 1 kitchen
- 1 living room