

Name:

Date:

Class:

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.

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.

Desert Climate – City Name: *Urumqi*

Number of rainy days each year: 36
Latitude: 47° North
Altitude: 2844 feet above sea level
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.

Your house should have:

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