Name

# G6 Richter Scale – Information Sheet

Scientists use a Richter scale to classify earthquakes. The damage increases as the movements of the ground increase in size. The difference between one whole number of magnitude and the next is a 10-times increase in energy. So, an earthquake of 6.0 magnitude releases 10 times more energy than an earthquake of 5.0 magnitude

Humans may be able to feel a magnitude 3 quake if they were sitting still and there were no other noises. The Richter Scale goes from 1 – Greater than 9. Complete the calculations below.

| Richter Scale Level | How many times more powerful than a 3? calculations here | Final Answer |
|---|---|---|
| 1 | | |
| 2 | | |
| 3 * We can feel a quake at this level | | |
| 4 | 3 to 4 = 1 x 10 = | 10 times as powerful |
| 5 | | |
| 6 | | |
| 7 *This is the video on geogaphypods | | |
| 8 | 3 to 8 = 10 x 10 x 10 x 10 x 10 = | 100,000 times as powerful |
| 9 | | |
| 10 | | |

http://www.geographypods.com/earthquakes.html

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Fill in the missing data on the Richter scale chart below as best you can. After, answer the question below the chart.

| Magnitude | Size | Occurrence | Movement | Damage |
|---|---|---|---|---|
| 0–1.9 | small | | small | detectable only by seismographs |
| 2.0–2.9 | | daily | small | hanging objects may swing |
| 3.0–3.9 | small | daily | | similar to vibrations from a large truck passing by |
| | small | daily | moderate | windows break; small objects fall |
| 5.0–5.9 | moderate | monthly | strong | furniture moves; walls are damaged |
| 6.0–6.9 | moderate | | strong | damage to well-built structures; severe damage to poorly constructed buildings |
| | major | monthly | severe | buildings knocked off foundations; underground pipes broken |
| 8.0–8.9 | great | yearly | very severe | bridges destroyed; few buildings left standing |
| greater than 9.0 | great | yearly | | nearly total destruction of human-made structures |

At what magnitude are earthquakes a threat to human lives?_____

| Find out about the strongest ever quake recorded and record the details of it (where, when, what happened) in the space below. |
|---|
| |

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