**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Per. \_\_\_\_\_**

**Your Mission**

Crack the code to find out where the thieves are taking the loot.

**Briefing**

Crafty robbers stole the Swedish coffee pot from Kingsburg. Finding them would be hopeless, except that they dropped a [scrap of paper](javascript:%20contentSmall('/xpeditions/activities/01/popup/clue.html');) with some odd scribbles on it.

But the note doesn't mention any places! All you see are weird combinations of letters and numbers. Luckily, a sharp-eyed geographer peers over your shoulder and says, "Coordinates. How fascinating!" She refreshes your memory on [latitude and longitude](javascript:%20contentMedium('/xpeditions/activities/01/popup/lat_long.html');), those imaginary lines that help us locate places.

The numbers, you realize, are the coordinates for countries all over the planet. (1) Find those places in an atlas or on a map. (2) As you find each place, write its name next to the coordinates. (3) Circle the first letter of each name. (4) Read the letters from top to bottom, and they should spell the name of a city. Now you know where to nab those cartographic crooks.

At the bottom is a rhyme that seems to be an instruction from the thieves' boss:

***First letters from each place-name read.  
Spell out the town and come with speed.***

|  |
| --- |
| **The thieves who stole the coffee pot left behind this code. (As a bonus clue, we’ve added the number of letters in each city’s name.)** |
| |  |  |  |  | | --- | --- | --- | --- | | **First letters from each place-name read. Spell out the town and come with speed.** | | | | | **LATITUDE** | | **LONGITUDE** | **LETTERS** | | **40° N** | **4° W** | **5 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | | **21° N** | **157° W** | **6 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | | **27° S** | **133° E** | **9 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | | **62° N** | **10 ° E** | **6 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | | **8° N** | **2° W** | **5 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | | **47° N** | **20° E** | **7 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | | **34° S** | **64° W** | **9 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | | **5° S** | **120° E** | **9 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |  |  |  | | --- | --- | |  |  | |  |  | |  |  | |  |  |   **The thieves are at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Can you give the coordinates? \_\_\_\_\_\_\_\_\_\_** |

Latitude is distance north or south of the Equator, and longitude is distance east or west of the prime meridian. Both are measured in terms of the 360 degrees (symbolized by °) of a circle. Imaginary lines of latitude and longitude intersect each other, forming a grid that covers the Earth and helps us locate points on it.

The Equator is the line of 0° latitude, the starting point for measuring latitude. The latitude of the North Pole is 90° N, and that of the South Pole is 90° S. The latitude of every point in between must be some degree north or south, from 0° to 90°. One degree of latitude covers about 69 miles (111 kilometers).

Each line of latitude forms an imaginary circle around the Earth. Because these circles are parallel to the Equator, they are called parallels of latitude. The farther the circles are from the Equator, the smaller they are; at the Poles they are simply points.

Lines of longitude, which meet at the Poles, are known as meridians. The one that runs through Greenwich, England, is internationally accepted as the line of 0° longitude, or the prime meridian.

Longitude is measured in degrees east or west of the prime meridian. This means one half of the world is measured in degrees of east longitude up to 180°, and the other half in degrees of west longitude up to 180°.

For greater precision, degrees of latitude and longitude are divided into 60 minutes (symbolized by ’), and minutes are divided into 60 seconds (symbolized by ”).

Maps are often marked with parallels and meridians. The latitude and longitude of a point are called its coordinates. If you know the coordinates, you can use a map to locate any point on Earth.

**Check Your Answer**

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| **Those dastardly crooks are heading to . . . pg 189**  **SHANGHAI, China.** |

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| --- | --- | --- |
|  |  |  |
| **LATITUDE** | **LONGITUDE** | **CITY** |
| 40° N | 4° W | Spain |
| 21° N | 157° W | Hawaii |
| 27° S | 133° E | Australia |
| 62° N | 10 ° E | Norway |
| 8° N | 2° W | Ghana |
| 47° N | 20° E | Hungary |
| 34° S | 64° W | Argentina |
| 5° S | 120° E | **Indonesia** |