



# The World Map Project Manual for PCVs

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April 2014  
Peace Corps  
Publication No. R0088

# Acknowledgements

The Peace Corps acknowledges Barbara Jo White (RPCV/Dominican Republic) for her help in updating this manual to better serve Peace Corps Volunteers throughout the globe. White, a computer information systems professor at Western Carolina University, and her students developed an up-to-date world map. Additionally, text that was initially used when the *World Map Project* manual was first introduced in 1992 was updated. Western Carolina University also provided a grant to purchase equipment to digitize the map, while WCU staff members Mary Anna LaFratta and Krista Schmidt provided valuable material and advice.

Special thanks to the following individuals and groups for their contributions to this special project:

Tom Ahnemann	Steve Dorage	Brian Leonardo
Margaret (Peggy) Altoff	Minnie Dyer	Susan Matulaitis
Judy Babbitts	Carla Fletcher	Jayne Osgood
Cheryl Bartz	Andrew Fontanez	National Geographic Society
Judy Benjamin	Jennifer Haas	Elise Sprunt Sheffield
Tom Burwell	Mary Koller	Kurt Waters
Frederick Czarra	Margaret Legowski	Maureen Wilson-Jarrard

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# Introduction

The World Map Project celebrated its 25th year in 2013, and has taken another step toward making it easier for Peace Corps Volunteers to launch a project in their communities.

Barbara Jo White started the project while serving as a Peace Corps Volunteer in the Dominican Republic (1988-1990). Today, she has her own website devoted to the project ([theworldmapproject.com](http://theworldmapproject.com)) and continues to help the Peace Corps promote and update project material.

Applying a grid method to make her first world map, White's efforts led to the inaugural Peace Corps World Map Project manual [ICE No. R0088] in 1992. It is intended to show Volunteers how to trace, label, and grid a world map. The simple method of enlarging taught in the book is useful beyond maps, and the resource is cross-referenced in several other publications, such as *Adapting Environmental Education Materials* [ICE No. M0059] and the *Classroom Management Idea Book* [ICE No. M0088].

This is the fourth version of the *World Map Project* manual. The first was produced by White with funding from the Peace Corps' Youth in Development program. It was sent to Peace Corps libraries worldwide. Due to the project's widespread appeal, Peace Corps' Worldwide Schools worked with White in 1994 to revise and add to the earlier manual. The second version was written for many different groups: U.S. teachers, Peace Corps Volunteers, returned Peace Corps Volunteers, scout leaders, youth workers, and others.

In 2012, a third version contained a new section instructing PCVs on how to lead a World Map Project workshop. The most important difference was the digitization of the map. With new versions of the manual, White had always updated the original tracings, but 20 years of updates proved too difficult. Now, technology has made it possible to digitally produce the map that allow for easy updates in the future.

This version includes most of the elements contained in the earlier versions, in addition to updated maps and valuable links for additional resources.

The project has grown to include a wide range of murals, with HIV/AIDS being among many topics Volunteers approach with paint and brush in hand. It has also been used to facilitate teamwork with at-risk youth or those working toward conflict resolution. Many Volunteers speak English with their students while working on a map, while some have devised their own gridded maps for individual countries.

All Volunteers in Peru are asked to complete a World Map Project to help them integrate into the community. Many other Volunteers across the globe produce maps on the walls of schools, community centers, and government buildings, serving as testimony to the simplicity and durability of the maps. Since few rural schools have maps and many students leave school in their teens, some children never see a world map or have a true concept of the world that exists outside of their village, town, or community. The only way many can get and keep a map is to paint it on a wall, and this project helps those children gain a better understanding of the global community and important topics that can be easily shown on a map.



# The World Map Project: 10 Questions

Barbara Jo White

*RPCV, Dominican Republic (1987-89)*

## How did the World Map Project get started?

In 1988, I was on a small bus, called a *gua-gua*, headed to the capital of the Dominican Republic for an environmental education conference. A fellow Volunteer mentioned that she might write *National Geographic* for world maps in Spanish. "The only way you're going to get a map to stay on the wall is to paint it there," I said.

A \$20 donation from one Volunteer's brother funded the first World Map Project workshop. Then a Peace Corps Partnership grant helped me and other PCVs lead 10 World Map Project workshops across the Dominican Republic.

Toward the end of my Peace Corps service, I wrote an article about the World Map Project for the *Peace Corps Times*, which spread the project worldwide. Within two years, Peace Corps Volunteers had introduced the project to communities around the world. Meanwhile, returned Peace Corps Volunteer groups and I wrote the original World Map Project instructions to share the idea with U.S. teachers. Interest in the project kept growing. Former President Jimmy Carter publicly commended it. Also providing support were corporations such as Citgo, which funded the development of a 15-by-30 foot world map for the 1991 returned Peace Corps Volunteer conference in Eugene, Oregon. IBM promoted the project in all its "adopt-a-school" programs in Atlanta, Georgia.

Today the World Map Project has spread to hundreds of cities, towns, and villages across the globe.

Most of the hand-painted maps brighten the walls of schools and community buildings. Others hang in classrooms, gyms, and cafeterias. In short, World Map Project maps are fun to make. I've always thought the map project epitomizes the development process and takes groups from a place of wanting to improve their communities even though they might not be sure they can, to gathering materials and developing skills and capacity, to successfully making a difference and building confidence.

## When is the best time to make a World Map Project map?

Volunteers have made maps at the beginning of their service, between other larger projects, and at the end of their service when they don't have time to start another big project.



## Who can make a World Map Project map?

The project is for everyone. Mapmakers of all ages and abilities have had success: deaf students in Ghana, youth groups in Tunisia, school students in Thailand, 4-H'ers in North Carolina, returned Volunteers in Oregon, and at-risk kids in Atlanta. A Volunteer in Benin worked with female secondary school students to make a beautiful map, even though the headmaster initially balked at the idea. "We'll make a map with girls, or not at all," she told the headmaster. Everyone was very proud of the map the girls made!

## Help! I can't draw! How can we make a good world map?

Thousands of groups have made maps all over the world using the instructions in this manual. After completing the first successful World Map Project map at my school in 1988, I purposely sought out a Volunteer who couldn't draw at all and he and teachers from his school made another beautiful map at his site. The grid method, outlined in this manual, proved successful with artists and more importantly, non-artists. Using the grid method, you basically draw a big grid on the wall and then copy outlines of countries from the small blocks on the gridded map pages in this manual onto your larger grid one block at a time. Block by block, your map will grow.

## What should we use for our background surface?

Walls of plaster, dry wall, cinder block, wood, or even brick can be utilized.

Some mapmakers have opted for non-fixed surfaces like sheets of pre-cut plywood, particle board, cardboard, rice sacks, or heavy plastic. (Draw your map on a single piece or try a series of panels.) Still others have created their maps on canvas, cotton sheets, even pieces of heavy paper taped together. (Businesses that sell vinyl flooring may be able to donate very large pieces of heavy paper that come rolled with the flooring.)

**Note:** You may want to work with pre-cut surfaces whose corners are already squared (e.g., sheets of plywood, pre-cut canvas, etc.) as these will be the easiest to construct your grid on. If your surface isn't already square, don't worry! This guide tells you how to work with these situations too.

## How should we paint our map?

Most mapmakers have painted their maps with acrylic or latex (water-based) house paint. (For a 6-by-12 foot map, all you need is about 4 ounces of eight paint colors, plus a quart or more of ocean blue, a white/blue mix.)

Depending on your background surface (and stamina), you can also "paint" your map using colored markers, colored pencils, or crayons. Some school teachers in Peru and the U.S. have even made beautiful maps from colored tissue paper.

You can paint your World Map Project map using the color scheme suggested in this manual, or you can make up your own. If you like the challenge of designing your own color scheme, you will need at least four colors; the more colors you have, the easier it is. Remember, light colors will show map labels easier

than dark ones. In assigning colors to various nations, keep in mind that countries and their territories are the same color. Thus, if England is green, so are the Bermuda Islands and the Falkland Islands. Therefore, the U.S. can't be green, or the Bermuda Islands would appear to be territories of the U.S.

## **How big can we make our map?**

The World Map Project Maps can be made any size as long as the maps maintain the proportions of 30 blocks tall by 50 blocks long. Most groups have made maps about 7.5 feet tall by 12.5 feet wide. Mapmakers in Atlanta created one measuring 15 feet, 2 inches by 30 feet, 4 inches.

## **How long will it take us to make our map?**

It's best to take your time; this project is as much about process as product. Some groups have created their map in one intensive weekend. For others, the project evolves over several months. Each map is unique. Each has its own history. Relax: the learning is in the journey.

## **How much will it cost to make a World Map Project map?**

Not much. This is a very low-cost project. To make a map on a wall, all you need are pencils, paint, and brushes. Typically, a gallon of white, along with a quart each of red, yellow, and blue, will make 4-5 maps that are approximately 6 feet high by 10 feet wide. If you don't paint your map on a wall, it will cost more to purchase your background surface.

## **Can we improvise or make the map differently than the method suggested?**

Sure. Use your imagination. Try unusual materials. Depict physical features instead of countries. Create maps of your region. You can even apply your draw-by-grid skills to other projects, such as making posters and murals!



# **Part I: World Map Project Instructions**

# Plan Your World Map Project

## Overview

The goal is to create an accurate hand-drawn map of the world. To do so, you first draw a large grid on your background surface. Then, using the gridded map pages (Pages 48–65 of this manual) that serve as your guide, you transfer information block-by-block from the map pages onto your proportionately larger grid.

## Make Some Decisions

1. Approximately what size will your map be? Will it have any border?
2. What background surface will you use?
3. How will you paint your map?
4. Who will you involve in the map-making process?
5. Are Volunteers nearby who want to learn how to make a World Map Project map with you?
6. How will you pay for mapmaking materials?

## Prepare Your Materials

Each gridded map page represents a section of the world map that will require drawing, coloring, and labeling. Prepare your 18 map pages by doing the following:

- Photocopy each section sheet (Pages 48–65) to make single-sided copies.
- Color the countries on your photocopied section sheets according to your color scheme (Pages 67–74). It's usually easier to draw from colored map sections. Colored sheets also eliminate endless "What-color-do-I-paint-this-country?" questions later. Remind your mapmakers to color lightly over written information. Double-check the results.
- Protect the section sheets. Plastic-covered pages will last through many mapmakings and paint spills. Laminate them or slip them into plastic folders and tape the top shut or cover them with clear tape.

## Prepare Your Background Surface

### All surfaces

You'll want a background surface that is as clean, smooth, and as light-colored as possible. If you'll be painting your map, make sure your surface is non-porous. Prime it, if necessary, and let it dry.

Many Volunteers have painted the entire map area ocean blue, two coats if needed. With a blue background, you won't have to carefully paint the ocean around the continents and islands later. It's important to save some ocean blue paint for touch-ups. The general recipe: ocean blue = 1/2 quart of white + 3–5 teaspoonfuls of blue.

## Canvas, Cloth, Rice Sacks, Coffee Sacks, Paper or Cardboard

Volunteers don't usually make maps on canvas because using pre-coated artist-type canvas is expensive. If your cloth is not pre-coated, you'll need to prime it with a coat of paint. Primer may seep through your canvas, so protect your floor. Also, keep in mind that linen canvas or cloth may shrink after getting wet.

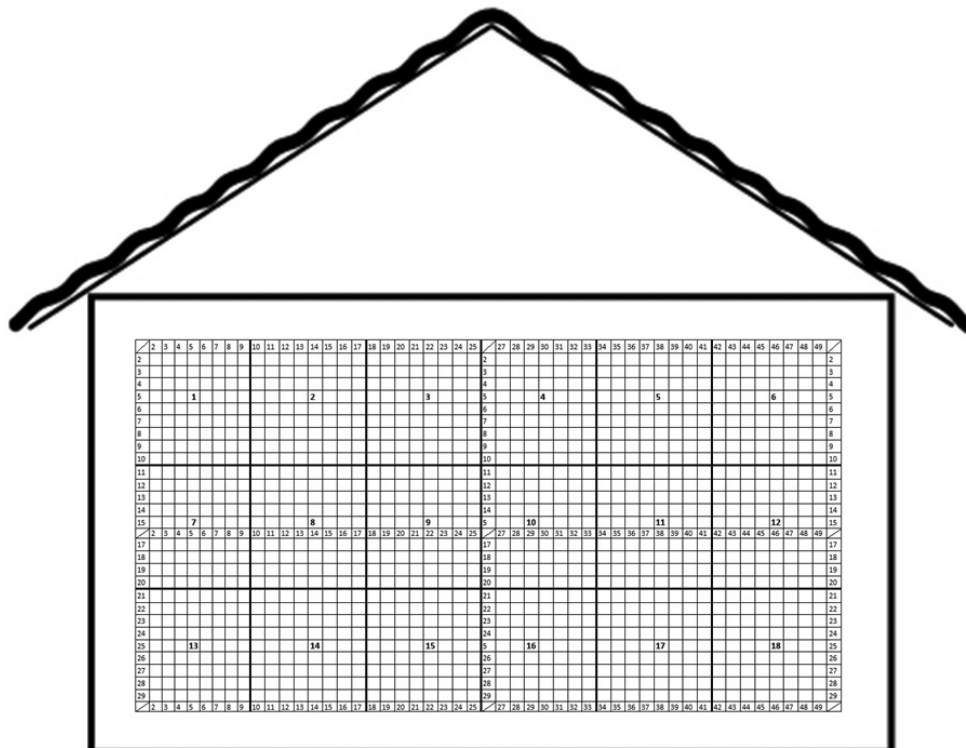
Think about how you'll display your canvas once it's painted. Though not necessary, you may want to consider stretching your canvas on a frame before priming and/or painting. Doing so will smooth and "square" the surface, in addition to providing an attractive way to display the completed map. Another option is to lash the canvas to PVC plastic tubing, or sew a "pocket" the length of the canvas through which you can later insert a strong rod.

## Draw Your Large Grid

### Overview

Although it involves a number of steps, actually making and using the grid is quite simple. Schoolchildren all over the world have succeeded, and you can too. If you look at the 18 map pages (Pages 48–65 of this manual), you will see grid blocks on each page. If you counted all the blocks on the 18 map pages, you would count 1,500 blocks (30 rows tall by 50 rows wide).

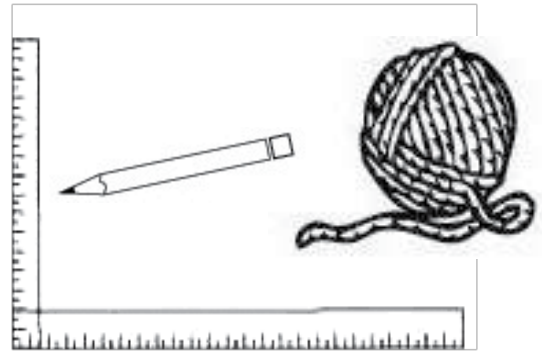
Your goal is to make a larger set of grid blocks on the wall (or whatever surface you are using to make your large World Map Project map). The following steps tell you how to size, center, and draw the horizontal and vertical grid lines. Many mapmakers find constructing the grid the most time-



consuming aspect of the whole project. After making all those straight lines, actually drawing the map goes quickly! Volunteers worldwide have come up with a multitude of ways to draw the grid on the wall. We'll describe one way here, but it is by no means the only way!

## Materials

- Map section sheets, Pages xx-xx
- Yardsticks/meter sticks
- Measuring tape (optional)
- Long straightedge (optional)
- Carpenter's square, protractor, or even a sheet of (squared) paper from this guide
- Pencils
- Pencil sharpeners
- Erasers
- Masking tape



## Plan Your Large Grid

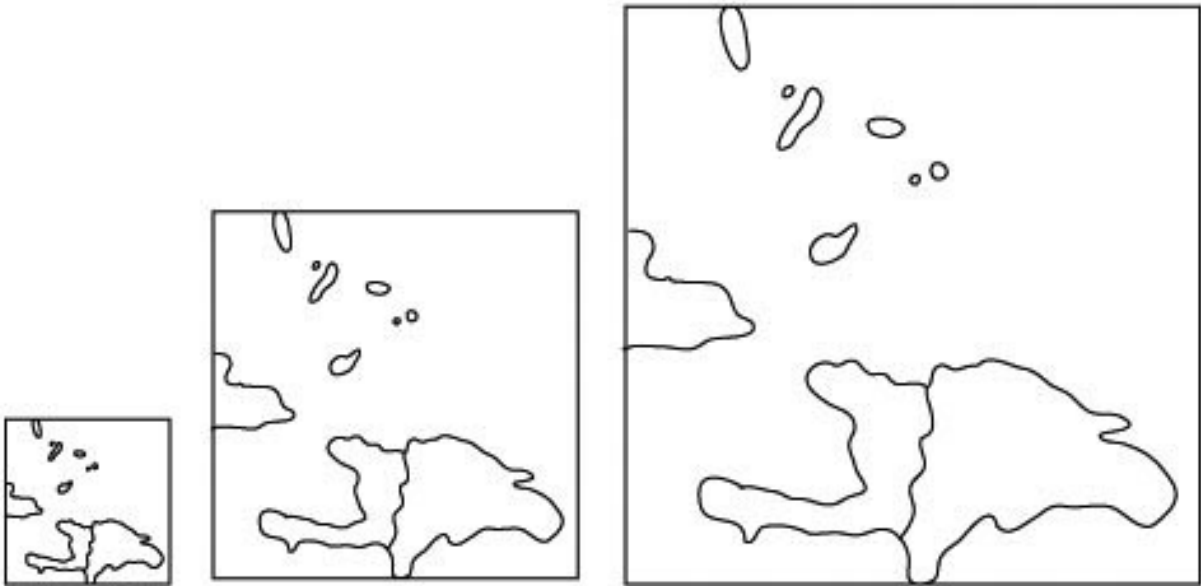
The following steps tell you how to size, center, and draw the horizontal and vertical grid lines. Many mapmakers find constructing the grid the most time-consuming aspect of the whole project; after making all those straight lines, actually drawing the map goes quickly.

## Determine the Size of Your Large World Map Project Map

There are two ways you can determine the size of your large map. One way is to determine the size of a block and then multiply by 30 and 50 to get the height and width of your map. The table below gives you some sample block sizes and tells how big the map would be if you used that block size.

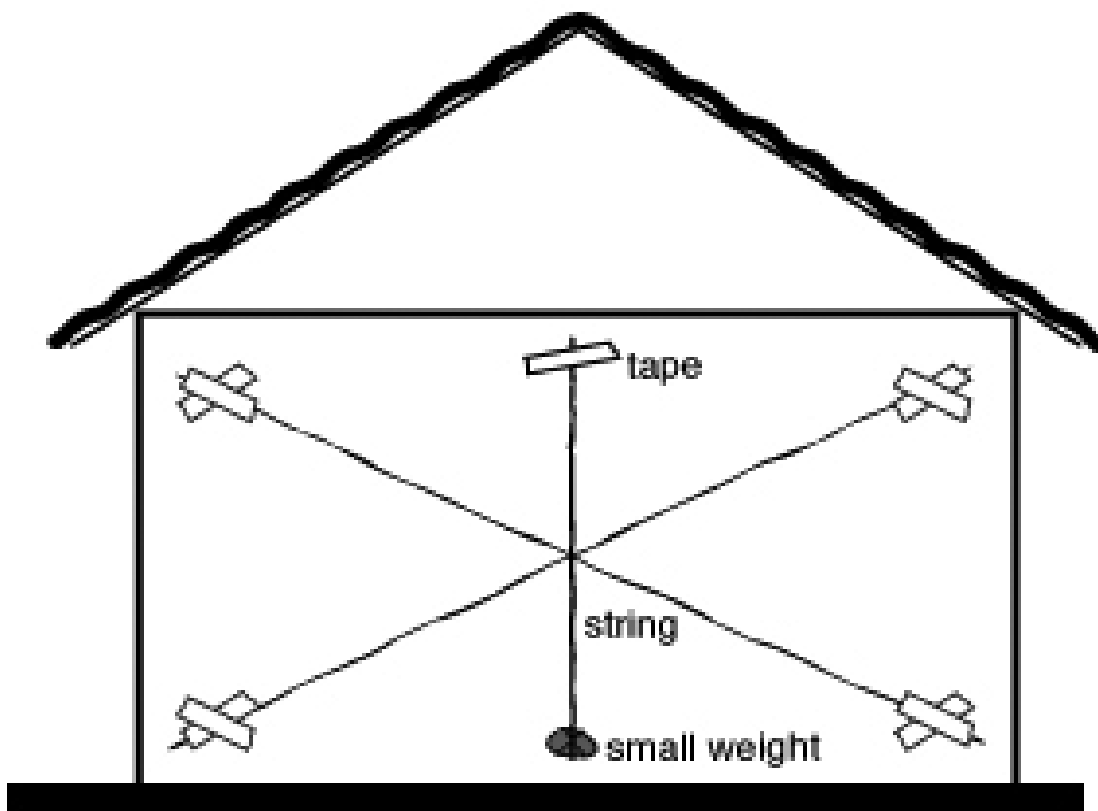
Block Size	Large Map Size		Good Surfaces
1.5 in.	3 feet, 9 inches	x 6 feet, 3 inches	Plywood
4 cm.	1.2 meters	x 2 meters	or other 4 ft. x 8 ft. surface
5 cm.	1.5 meters	x 2.5 meters	60-inch wide
2 in.	5 feet	x 8 feet 4 inches	cloth or canvas
6 cm.	1.8 meters	x 3 meters	School Wall
2.5 in.	6 feet, 3 inches	x 10 feet 5 inches	or Community Wall
3 in.	7 feet, 6 inches	x 12 feet 6 inches	

Another way you determine the size of your map is to find the maximum block size to fit the space you have. To do this, first measure the height and width of the space where you want to make the map. Divide the length by 50 and the height by 30. Whichever number is smaller is your maximum block size.



## Center Your Large Grid

The first step in drawing your large grid is to find the approximate center of your proposed map. To center the map on a wall, tape two pieces of string in the form on an "X." The center of your map is where the two lines cross. Attach a rock or weight (like a washer or bolt) to a string to make a plumb line and hang the plumb line vertically so that it crosses the center point.





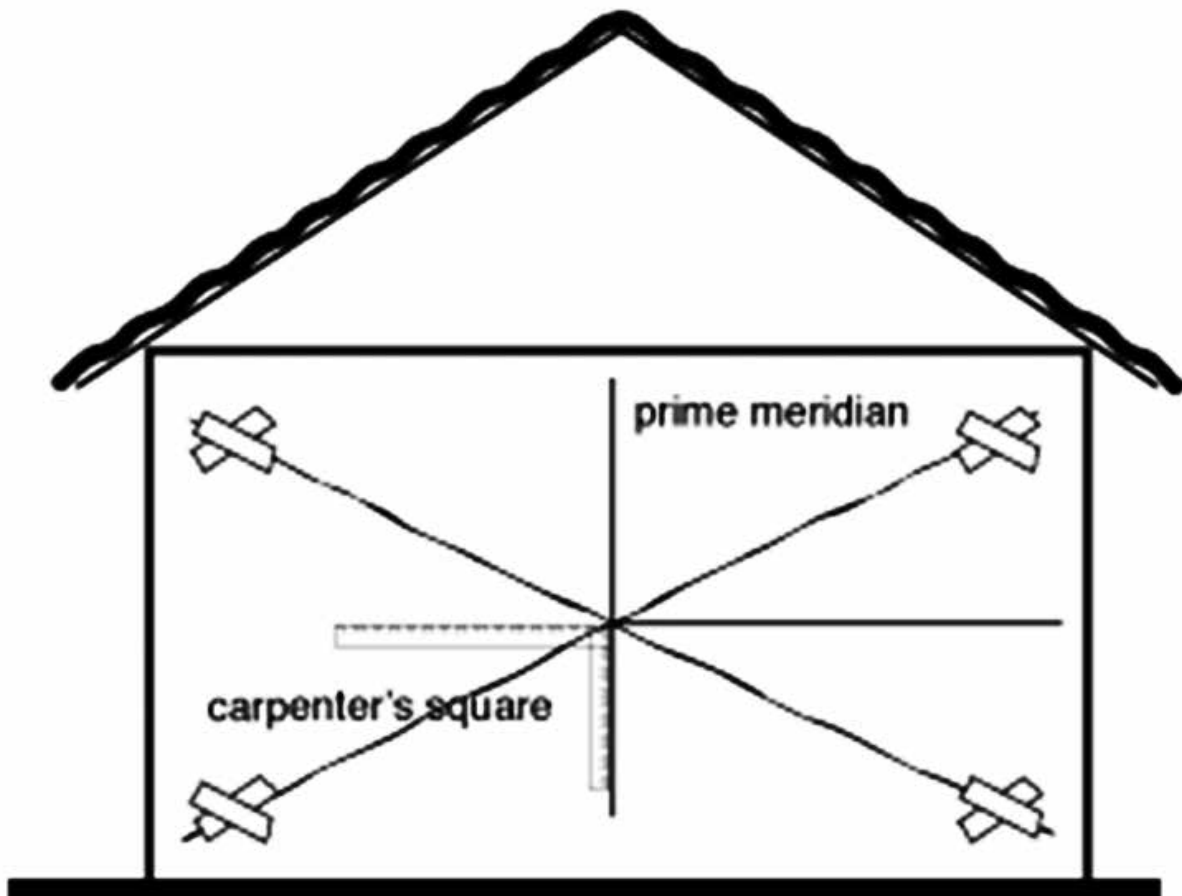
## Draw the Prime Meridian

Draw a vertical line along the plumb line. This will be the vertical center of your large grid and the prime meridian of your finished map.

## Draw the Equator Line

Make sure the center point is at least the distance of 15 blocks from the bottom of the wall (plus a little extra for a border if you want one). Multiply your block size by 15 to determine the minimum amount of space you will need from the base to your proposed equator.

Draw the equator by laying a carpenter square along the vertical prime meridian line and drawing along the horizontal edge where it touches the prime meridian center point. You can also open up this manual (if you have a hard copy) and use it like a carpenter's square.



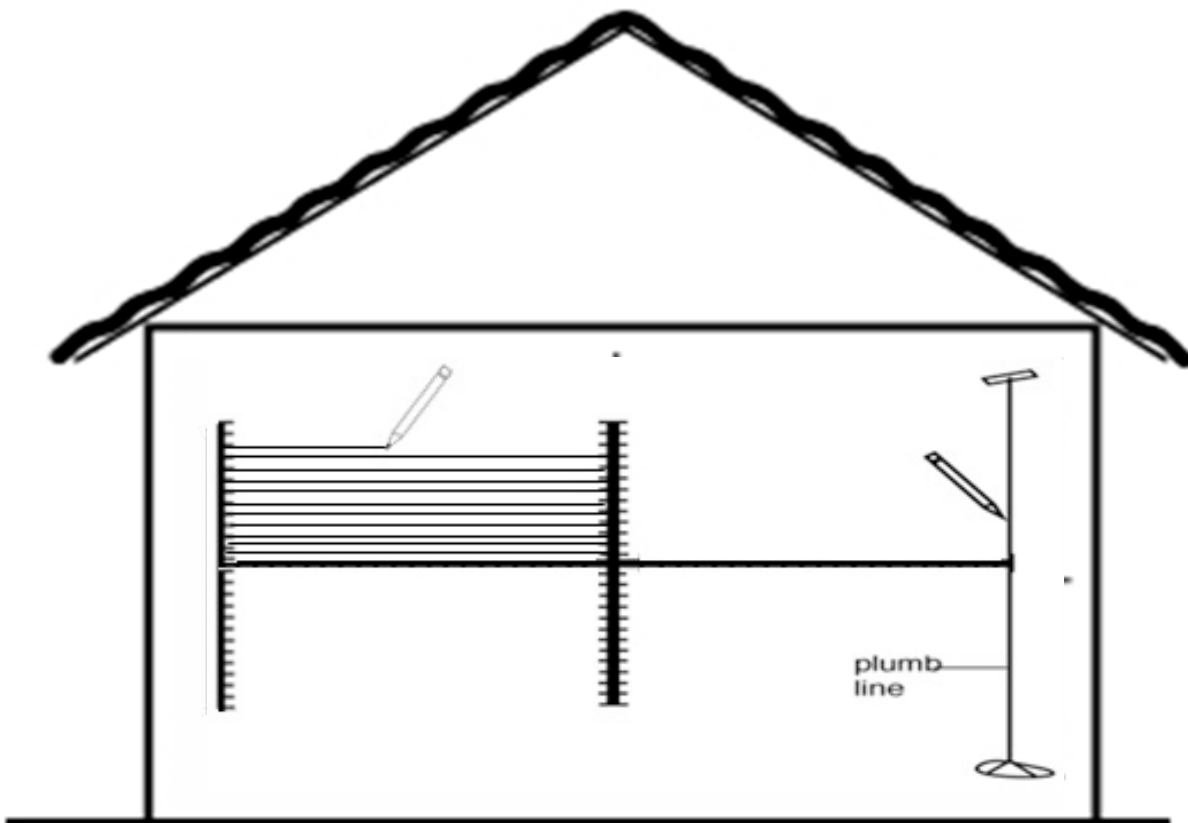
## Draw Horizontal Grid Lines

Draw “hash” marks according to the size of your blocks so there are 15 marks south of the equator and 15 marks north of the equator. Measure out from the prime meridian a distance of 25 blocks left and right and mark a spot.

Draw the left-hand side of the large grid (already drawn on the diagram to the right). Then draw the right-hand side of the large grid using your plumb line and a straight edge (or you can use a book as a straight edge).

Check along several points to make sure the distance between the left-hand line and the prime meridian is 25 x your block size.

The distance from the prime meridian and the right-hand line should also be 25 x your block size. Draw hash marks according to the size of your blocks along the right-hand and left-hand sides of the map too. Then begin drawing horizontal grid lines.

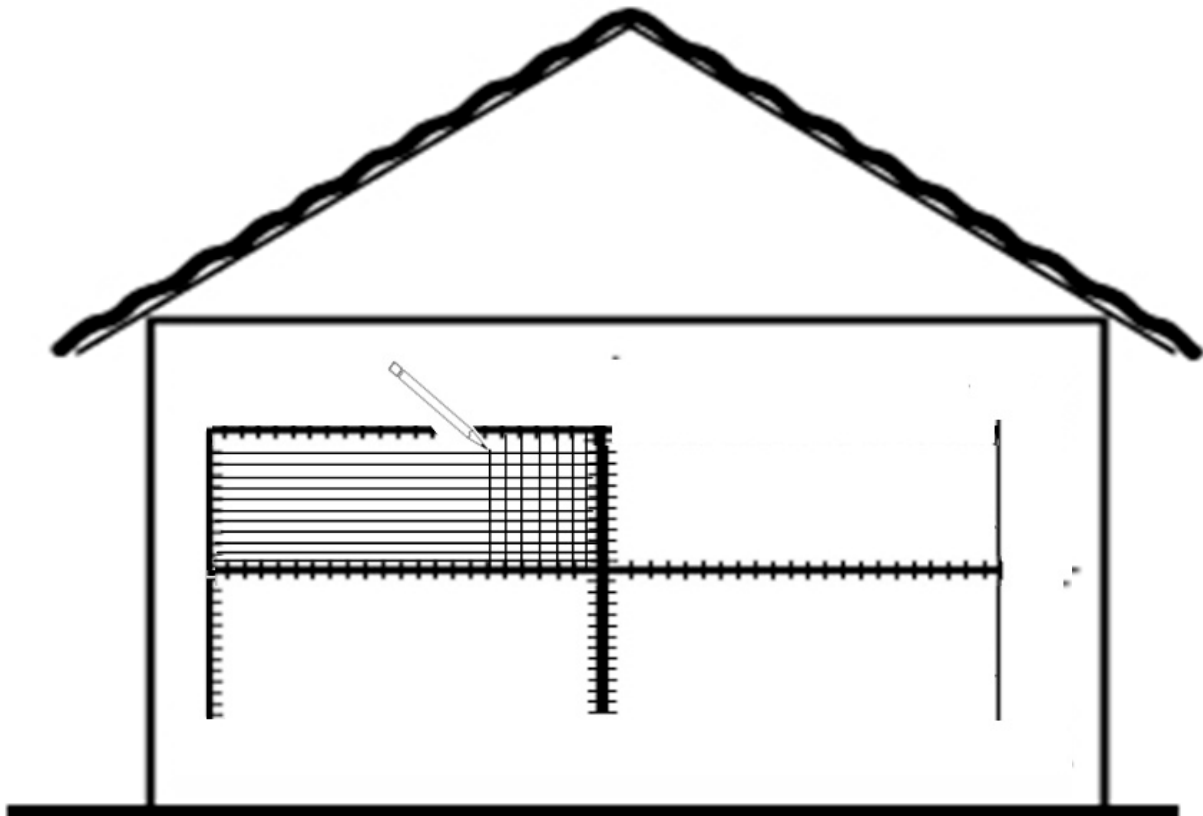


## Draw Vertical Grid Lines

Draw “hash” marks according to the size of your blocks so there are 25 marks to the right of the prime meridian and 25 marks to the left of the prime meridian.

Draw these marks in two places (along the equator and along the top and bottom of the map) Check along several points to make sure the distance between the equator and the top and bottom of your map is 15 x your block size. Then place a straight edge vertically between your two sets of hash marks (on the equator and top of the map, for example) and draw your vertical lines. If the distances aren’t exactly perfect, it’s not the end of the world!

For example, if one block is off by one-half inch, then spread the error out among all the blocks on that row so all the blocks are off by just a bit. Do make sure all the outside edges are squared up and look good.



# Number Your Large Grid

Numbering the large grid helps you stay on target as you transfer blocks of information onto your large grid from the map pages you use as your guides (Pages 48–65 in this manual).

## Number Across

Number the 50 grid blocks horizontally from left to right (1–50) in three places:

- Across the grid's top row (map Pages 1, 2, 3, 4, 5, 6)
- Across the center of the grid, starting in block 16 (the map's equator will be the line between blocks 15 and 16!) Across the grid's bottom row (map Pages 13, 14, 15, 16, 17, 18)

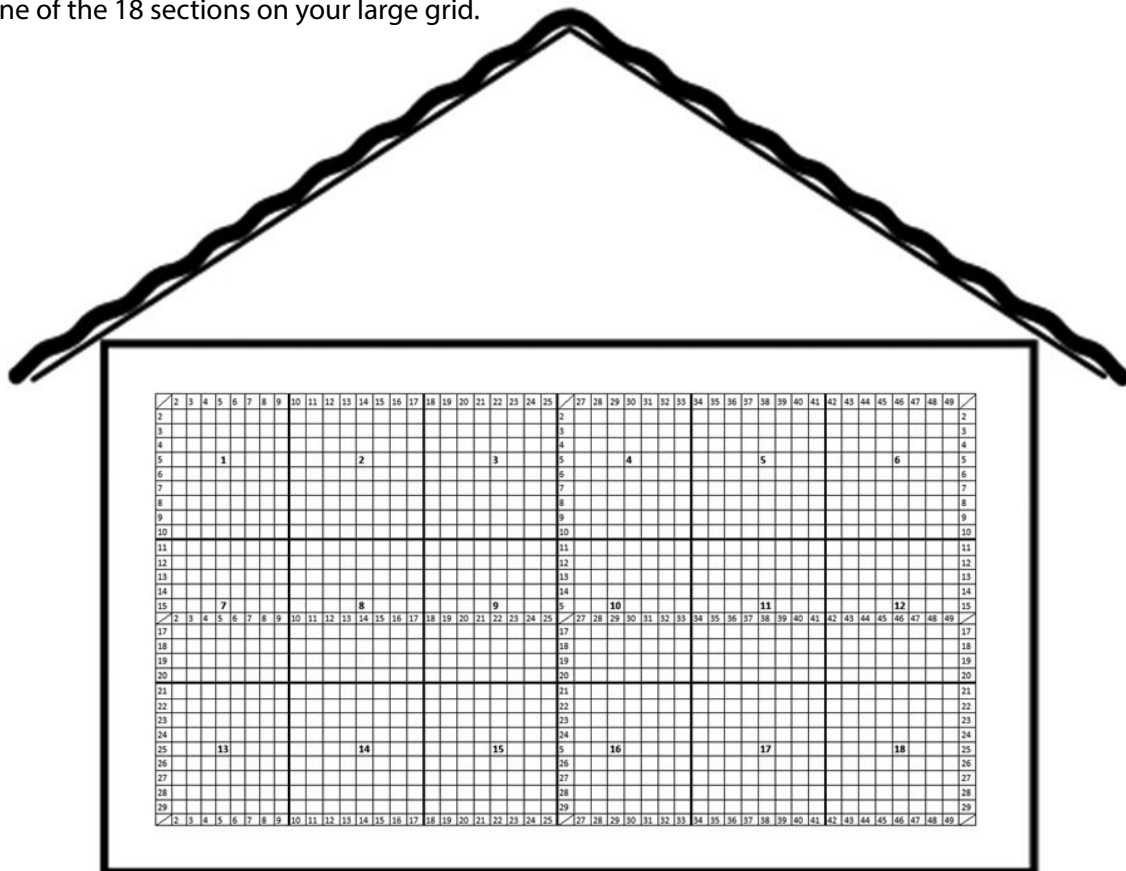
## Number Down

Number the 30 grid blocks vertically from top to bottom (1–30) in three places:

- Down the grid's left edge (map Pages 1, 7, 13)
- Down the grid's right edge (map Pages 6, 12, 18)
- Down the center of the grid, started in block 26 (the map's prime meridian will be the line between blocks 25 and 26)

## Number Each Section

Darken the grid lines that separate your future map into 18 sections. Number the sections 1–18 just like you see on the 18 map Pages (Pages xx-xx). Each of the 18 map pages in this manual corresponds to one of the 18 sections on your large grid.



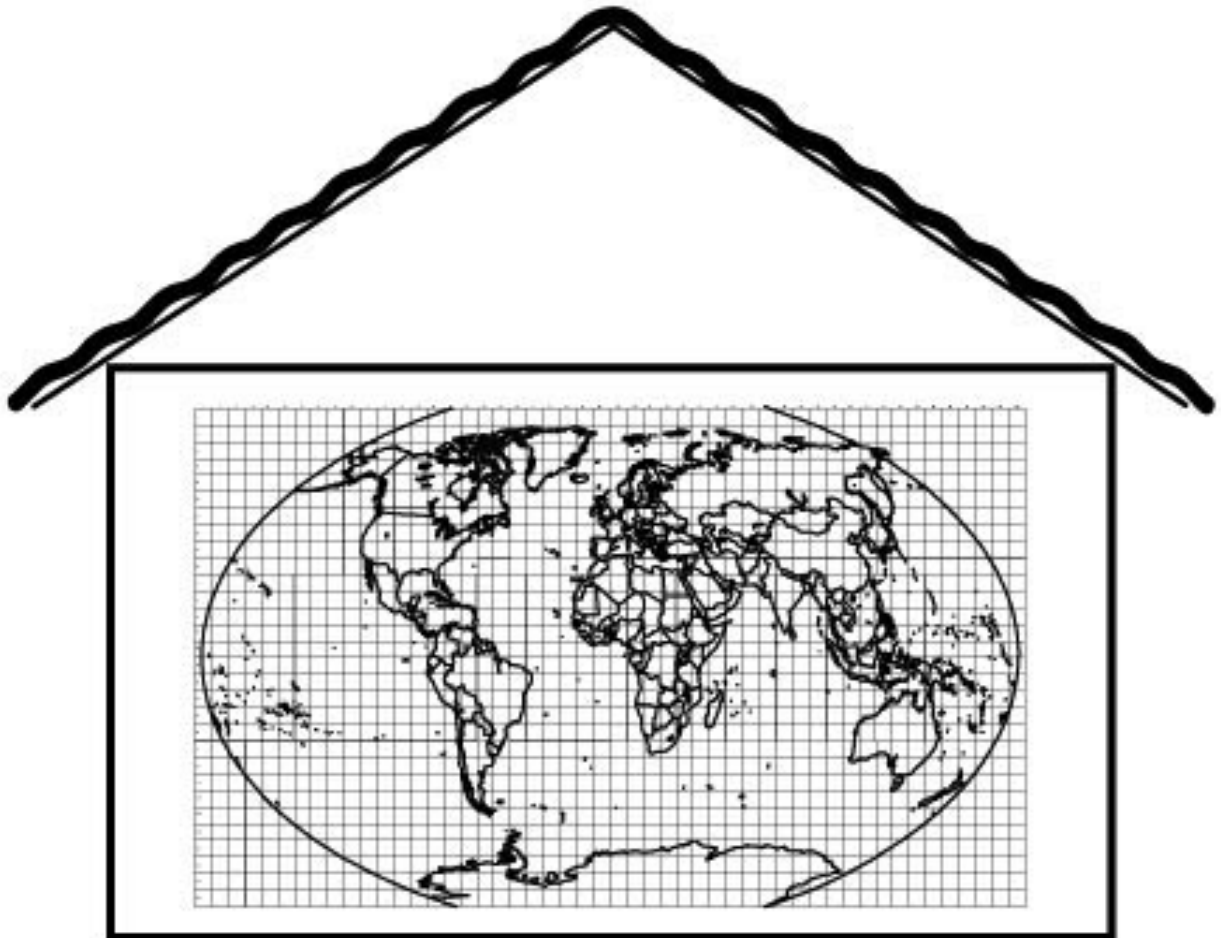
# Draw Your Map on the Large Grid

## Overview

Now you are ready to draw the whole wide world! Although it sounds like a big undertaking, transferring information from the section sheets onto your grid is relatively straightforward—almost anyone can do it.

## Materials

- Copies of Practice Exercise No. 1: Enlarging Drawings By Grid (Page 79)
- Copies of Practice Exercise No. 2: Drawing Maps by Grid (Pages 80–81)
- Copies of map pages (Pages 48–65)
- Pencils and erasers



# Devise a Strategy for Working on the World Map Project Map

Who will check the accuracy of each transferred section? How will it be done?

How many mapmakers can work on each section?

How many sections can they work on at one time?

In what order will they draw these sections?

## Practice How to Draw by Grid

### Handout Practice Exercise No. 1, Page 79.

This worksheet gives your mapmakers a chance to hone their skills. It also lets you know who among your group may need more assistance. Some people, especially young children, will have a harder time than others enlarging drawings using the grid method. Those who aren't particularly adept at map drawing, however, make wonderful map painters.

### Hand out Practice Exercise No. 2, Page 80–81.

Remind mapmakers that the key to success is making sure country borders or coastlines cross the large grid block in proportionately the same place as on the corresponding small grid block.

Discuss strategies for drawing difficult map areas:

- For complex borders, subdivide an especially challenging block into four smaller blocks. Be sure to subdivide the same block on the large map grid as well.
- For numerous small islands, draw in a few of the larger South Pacific islands in each island group (Tuvalu, Vanuatu, etc). Using these islands as reference points, paint the smaller islands directly on your surface.

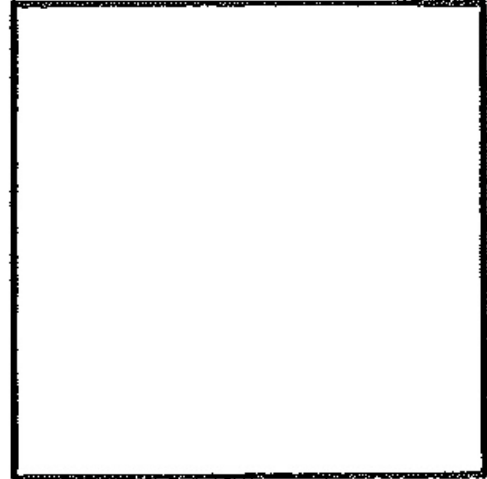
## Draw Your Large World Map

Now it's time to put pencil to wall and draw! Most often, mapmakers tape the page they're working on to the wall next to the place where they are drawing.

### Check and Check Again

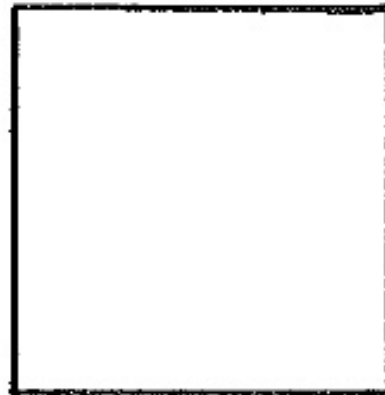
All the numbering of the large grid that you did earlier was designed to keep you in the right spot as you draw. When you're starting to draw in a new area, **always** check, double-check, and triple-check the numbered row and column coordinates on your colored map pages with the coordinates on your large grid. Be sure that you begin drawing your country in the correct block. You may want to use paired teams to minimize confusion: one partner "navigates" (points to the correct block and checks the work) while the other draws. Encourage partners to switch tasks.

Transfer information from the small map sections onto the corresponding sections of the large grid. Copy block-by-block until you have completely drawn the entire map. Remember to notice where the country lines cross the blocks and start in proportionately the same place in the block where you're drawing



### Subdivide Difficult Blocks

If you run into a block that is difficult, draw a dotted line and divide it into four blocks. Divide your block on the wall too. It will be four times easier to draw!



# Paint Your Large Map

## Materials

- Colored copies of the map section sheets
- Latex or acrylic paint containers for paint (screw-on lids sometimes stick)
- Plastic spoons/cups (for mixing/stirring paint)
- Brushes of a variety of sizes (small-tipped brushes will keep many painters busy)
- Rinse water cans
- Soap and water for acrylic paint for washing brushes or brush cleaner for oil-based paints
- Rags, newspapers, or sponges for catching drips
- Large erasers for removing the ocean grid lines

If not using paint on the map:

- Wide-tipped colored markers (waterproof)
- Colored pencils and sharpeners
- Crayons
- White cover-up for errors
- Colored tissue paper (see Page 86)

## Mixing Colors

If you can't get ready-mixed colors, here are some recipes you may want to try. Except for ocean blue, which calls for a half quart of white, the others are measured in teaspoonfuls, as you need only a small amount of each (depending on the size of your map, of course):

- Ocean blue = 1/2 quart of white + 3–5 teaspoonfuls of blue
- Green = 4 yellow + 2 blue
- Light Green = 7 yellow + 1 blue
- Purple = 4 red + 2 blue Lavender = 5 white + 2 purple
- Pink = 5 white + 3 red
- Orange = 5 yellow + 3 red

## Mixing Tips

Colors need to be light so that map labels will show up. To prevent a color from becoming too dark, always put the light color in your cup first and add the darker color bit by bit. Always shake or stir your paint before and after mixing for best consistency.

## Painting Tips

- Test your colors to make sure they cover your grid lines. If not, erase the affected grid lines. Light colors like yellow may not cover grid lines, even with two or three coats; mixing a little white with the color may help.



- Pre-code country colors on the large map. Although mapmakers can consult the colored section sheets, facilitate the process further by putting an appropriate dot of color in each country. This will eliminate questions and confusion while your group is coloring.
- Decide how you'll color the background area surrounding your oval map, the corner emblems (optional), and a rectangular border (optional).
- Alert mapmakers to any special care of materials (e.g., how to wash brushes).
- Devise a work strategy similar to the one you developed for drawing the map. Alternately, develop a job chart. Go over tasks and roles with your mapmakers. In addition to painters, you'll also need map checkers and those who will clean the area upon completion.
- For best consistency, always shake your paint before using it.
- Alert painters to the "danger" of painting adjacent to a still-wet country. Colors could mix at the border.
- If grid lines cross your oceans, erase the lines or touch up with paint.

## Label Your Large Map

### Materials

- Copies of map pages (Pages 48–65)
- Straightedges (optional)
- Pencils (optional)
- Permanent markers
- Extra paint for touch-ups and corrections
- Permanent black markers (or brushes and paint) such as: wide-tipped brushes for oceans, equator, large countries; medium tipped brushes for medium-sized countries; thin-tipped brushes for small-sized countries
- Clear water-based finish (makes the painted surface smoother and easier to write on) or another recommended material that someone in your town or village recommends

### Labeling Tips

Devise a work strategy:

- Who will do the labeling?
- What size(s) will the labels be?
- Where, exactly, will the labels go?
- Who will check the accuracy of the labeling (spelling, position)? How will it be done? How will errors be corrected?

Decide what you want to label. Some possibilities:

- Countries and territories
- Location of capitals
- Continents
- Bodies of water (oceans, seas, gulfs, bays, lakes)
- Equator

- Details on your emblems and on the compass
- Names of mapmakers
- Date of completion

Many Peace Corps Volunteers have had a great experience using varnish or some sort of finish on the map (if it's not oil-based paint already). For example, they have put on a thin coat of varnish before labeling and then another coat of finish after labeling. Other Volunteers have had to repaint large sections because the varnish made the paint run or made the country names run.

There are sure to be knowledgeable people right where you live who can offer good advice. Always test a small area to make sure that the product is compatible with the marker you used.

To minimize errors, labeler(s) may want to first write in pencil and then copy in ink.

## **Celebrate Your World Map Project Map**

Congratulations! You've finished your World Map Project map! Why not hold a celebration to honor all those who helped with the map and to behold the beautiful result of all that collaboration? Fill out certificates of achievement and distribute them out at a special ceremony. Take a group photo of all the mapmakers and their certificates in front of the map

Coincide your "world premiere" with an event like Earth Day or Geography Awareness Week. Share photos of the work in progress. Invite parents, classmates, community members, and others to write comments in a guest book. Have fun!

## **Keep Your World Map Project Map Up-To-Date**

The world keeps changing. Your map can either be a "snapshot in time" or a periodically updated document. If you opt for "snapshot," do record the date of completion on your map.

If you want to keep the map current, keep abreast of political changes in our world. Create a file or compare your map with an updated one. Schedule an annual "catch-up" day to make changes; hang on to some supplies.

You might find a World Map Project map painted on a wall that could be up to 25 years old! PCVs have found maps on school walls that had an East Germany and a West Germany. Since Volunteers began making World Map Project maps, there have been nearly 50 changes in the world. If you find an old World Map Project map, consider updating it.

# Lead A World Map Project Workshop

## The Make-A-World-Map-Project-Map-In-One-Day Workshop

The goal of a one-day World Map Project Workshop is to do whatever it takes, in terms of preparation, so participants can essentially finish the map on the day of the workshop. People feel much better about a map that they have completed (even if some was drawn beforehand) compared to a half-finished map (if they start from a blank wall). Participants who feel a sense of accomplishment with their workshop map are more likely to make a map with folks in their communities.

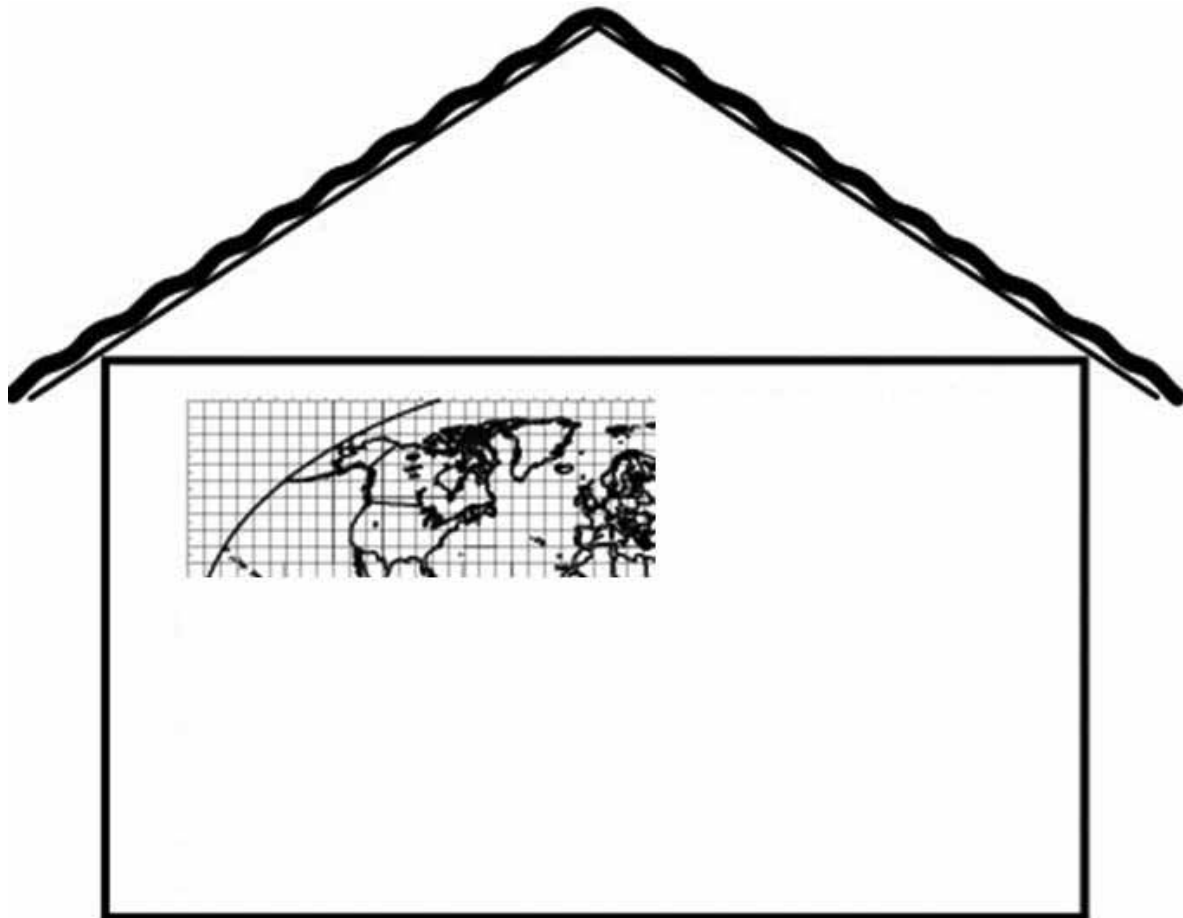
You can plan a workshop for fellow Peace Corps Volunteers or for Volunteers and their counterparts.

## The Day Before The Workshop

It's a good idea to take all the map-making materials over to the worksite where the workshop will take place.

To facilitate your workshop map, it's important to draw part of the grid and map ahead of time. You will need to draw the section of the grid and map that you see in the figure below.

Also, make any posters of practice exercises that you will use during your workshop.



## The Day Of The Workshop

As participants arrive, it's a good idea to have them print their names on a sheet of paper so someone can make name tags and fill in the diplomas before the end of the day.

Begin the workshop with introductions and discuss what has been done already. Explain the process of enlarging the map using the grid method. Some of your participants may already be familiar with the grid method. Demonstrate how to draw the grid. Have participants draw the rest of the grid and then number the grid. Make darker lines to delineate the different pages of the 18-page map.

Lead a practice exercise so participants can practice enlarging a small drawing using a larger grid.

Demonstrate how partners can work together, with one person drawing and another person checking the work. Be sure to tell the map checkers that the most important thing to remember when drawing using the grid method is to notice where the country lines on the map pages cross the grid blocks. Check to make sure the lines cross in the same place on the larger map as on the smaller map pages.

If you notice that some Volunteers or counterparts don't have a lot of skill with drawing, gently have them do some other work or they can start painting in large countries. Be mindful of your participants' self-esteem and don't erase work right in front of them. You can always do some border touch-up work the day after the workshop.

Generally, participants should finish most of the drawing of the large world map by lunchtime. During lunch, some PCVs can put dots of the appropriate paint color in the countries. This will help eliminate questions concerning what color to paint various countries.

After lunch, participants will generally paint for the rest of the afternoon. At the end of the workshop, have a ceremony to celebrate the participants' accomplishments!

## **Part II: How to Use Your World Map**

# Activities Before and During Mapmaking

## How World Wise Are You?

(all grades)

### Time Needed:

One session

### Summary:

Mapmakers measure increases in geographical knowledge: they identify countries and/or draw a world map from memory both before and after the World Map Project

### Curriculum Link:

**geography:** locations of countries/regions

### Materials:

- pencils
- unlined paper
- copies of a world map identification sheet

### To prepare:

1. Turn to the world map on p. 66
2. Number 10–20 countries/continents/seas, etc. on this map for participants to identify. Adjust the level of challenge to the age and ability of your mapmakers.
3. Make photocopies of this adapted map sheet. Participants can write their answers on this sheet-or devise a multiple choice answer sheet for them to use instead.

### Steps:

1. Briefly introduce the World Map Project and get feedback:

What kinds of things could we learn by doing this project?

- What could we specifically learn about geography?
- Is it important to know where countries are and what they are like? Why?
- How could we find out whether we have learned more about world geography by doing this project?

2. Introduce the map identification sheet as **one** way participants can measure how much they have learned about world geography during the course of the project. If appropriate, encourage your group to reflect on the strengths and weaknesses of this kind of assessment
  - What could this kind of survey measure? (knowledge of specific facts)
  - What couldn't it measure? (attitude changes, understanding of cultural, political and economic realities in other countries...)
  - Despite its limitations, how could this survey still be a useful tool for us?
3. Distribute the identification sheets. Ask individuals to complete the survey to the best of their abilities; remind them the assessment is not a test. In addition to (or instead of) using the map identification sheet, have participants draw and label a map of the world **from memory**.
4. Collect the completed sheets. Do not go over the surveys with your group at this time. Remind your group they'll take the same survey (or draw another map) at the end of the project. They will then compare results of the two assessments to see how making the map affected their knowledge of geography. At the end of the project, you might also ask mapmakers whether they have also noted other changes, such as increased interest in global issues and/or gains in confidence.



# Create Your World

(grades 3–9)

## Time Needed:

Several sessions

## Summary:

Mapmakers design and conduct a survey whose results help them plan the specifics of their world map-to-be. This activity encourages an early sense of project ownership among mapmakers. Taking the survey to the community publicizes the World Map Project and creates a wider circle of interest and support.

## Curriculum Link:

**language arts:** written and oral communication

**mathematics:** compiling, quantifying, and graphing data

## Materials:

- copies of a world map survey which your group will design during the activity
- graph paper or pie charts to record survey data (optional)
- chalkboard or flip chart

## Steps:

1. Inform your group they'll be designing a survey that will help them make decisions about how to make their map. Have group members identify some of the decisions they need to make about their world map (see p. 8 for ideas). Record these questions on the chalkboard.
2. Work with your group to develop these questions into a brief survey similar to the example below. Questions should have easily tabulated answers (e.g., yes/no), but consider asking an open-ended question or two as well:

*Example: "We're planning to make a really big world map..."*

- Do you think this is a good idea? yes/no (Why or why not?)
  - Of the following locations, which is the best place for our map?
  - Of the following colors, which 5 should we use to paint the countries?
  - Of the following sizes, which size map would you like us to make?
  - Would you like to help with this project? yes/no (In what ways?)
3. Have your group first survey themselves:
    - Distribute copies of your survey.
    - Have pairs survey one another.
    - When everyone has been surveyed, record the results of the survey on a chalkboard or flip chart.

- Have teams of 4-6 persons analyze specific portions of the survey data. (For example, team #1 analyzes all the data about map color preferences). Charge each team to visually represent that data using bar graphs or pie charts. Have them present their findings to the whole group.
4. Extend the survey process to your whole school or local community:
    - Have each member in your group survey three or more people. Be sure to first discuss survey etiquette. You may want community surveyors to travel in pairs, or with an adult; secure parental permission if necessary.
    - Compile the results by dividing the surveys among several teams. Have each team contribute its tabulations toward a whole group total. Record results on the chalkboard.
    - Now have teams analyze specific portions of the totaled data as in #2 above.
    - Have each team present its findings to the whole group. Compare the results of this larger survey with the smaller in-group survey. Make preliminary project decisions based on the results of the survey(s).
  5. Writing assignment: have group members do any of the following:
    - Summarize their team's data or impressions in a paragraph;
    - Compare/contrast the survey results: 1) between group teams, or 2) between the whole group and the wider community;
    - Draft a news release detailing the World Map decisions reached by your group; publish it in the school or local newspaper—let your community know what you're up to!

# Drawing by Grid

(all grades)

## Time Needed:

One session

## Summary:

Mapmakers practice drawing by grid in preparation for drawing countries on the world map.

## Curriculum Link

**mathematics:** measurement, ratio and proportion

**geography:** shapes and locations of selected countries/regions

## Materials:

- world map, p. 66 (optional)
- map sections sheets, p. 48–65 (optional)
- copies of Practice Exercise #1: Enlarging Drawings by Grid, p. 79
- copies of Practice Exercise #2: Drawing Maps by Grid, p. 80–81
- chalkboard or flip chart

## Steps:

1. Give a brief overview of the Grid Method. Mapmakers will quickly grasp the idea if you visually demonstrate what you're talking about. Make a few simple sketches and show the gridded world map (p. 66) or map section sheets (p. 48–65).
2. Have mapmakers practice making an enlarged drawing by grid: distribute Practice Exercise #1.
3. Have participants specifically practice drawing map sections by grid: distribute Practice Exercise #2. Discuss strategies. See p. 17.

## Peace Corps Connection:

Have mapmakers draw a map of the Volunteer's host country using the Grid Method. You will need to do some advance preparation Obtain a simple map of the Volunteer's country, construct a grid on it, and make photocopies. Also make and photocopy blank grids to transfer the drawing onto. Have mapmakers locate the Volunteer's site on the map.

# Changing the World

(grades 6–12)

## Time Needed:

One session for map work and one session for research

## Summary:

Participants note changes in political geography by comparing a section of the world map against an earlier map of the same region.

## Curriculum Link:

**language arts:** written and oral communication

**geography:** location of countries/regions

**social studies:** political history

**research skills**

## Materials:

- copies of world map section sheets or world map (if completed)
- out-of-date map resources (atlases, encyclopedia)—the older the better
- current encyclopedia

## Background:

The world keeps changing: the seas swell and recede, the continents drift, and land forms literally rise and fall. Geological changes may be often imperceptible within one human lifetime, but political change can be rapid. Nations too rise and fall, reshape borders, change names, and gain new capitals. Because of these historical changes, mapmakers are constantly re-drawing the world. In this activity, participants will look for changes in the world's political geography. For a tighter focus, you may want to adapt the lesson to address regions particularly rich in recent change: Europe, Africa, and/or Asia.

## Steps:

1. As introduction, draw your group's attention to the dynamic nature of the world map. Discuss:
  - What type of information on the map could be considered unchanging? Why?
  - What kind of information is subject to change? Why?

Inform your group they'll be looking for examples of how countries/regions on the world map have changed over time. Can anyone give an example of a recent change in political geography?

2. Divide regions of the world among teams of 2–4 persons. Assign specific section sheets to each team, as below, or make your own regional divisions.

- #2 (North America)
- #3 (North Atlantic)
- #4 (Eastern Europe)
- #5 (Asia)
- #6 and #1 (North Pacific)
- #7 and #8 (South America)
- #9 and #14–17 (South Atlantic and Antarctica)
- #10 (Africa)
- #11 and #12 (India/Australia)

3. Instruct each regional team to check the geographic information (borders, names of countries, capitals, rivers, etc.) on its map sections) against an out-of-date map. Have team members note the following:

- What year was the resource you consulted published?
- What changes (if any) in borders, names of countries/capitals, etc. do you find since that date?

**Note:** Your world map is drawn according to the Robinson Projection. The resource maps you consult may represent other projections. The difference in projections may affect the shape of land masses within a region. Greenland, for example, appears quite differently in the Robinson Projection than on the Mercator Projection. Alert your group to this possibility.

4. Challenge your teams to find out the reasons for the specific changes in political geography they discover; have them research the history of these countries or regions.
5. When research is complete, have teams share their findings with the whole group. Ask them to point out the changes on the world maps explaining reasons for those changes, if known.

### **Peace Corps Connection:**

Have your group pay particular attention to changes in the political geography of the Volunteer's host country or region. Encourage your group to share its findings with the Volunteer. Have group members ask the Volunteer to provide more detail, if possible, or to explain even earlier instances of change in that nation's political geography.

# Activities for a Completed World Map

## Musical Countries (a game for playgrounds and other flat maps)

(grades 3–5)

### Time Needed:

One session

### Summary:

Participants use the world map to play a geography game similar to musical chairs.

### Curriculum Link:

**geography:** location of countries/regions

**music:** music of various cultures

**physical education:** outdoor game with listening skills

### Materials:

- world map as painted on a playground or floor
- one tape player
- music tapes of various cultures
- individualized chip or playing piece (one per player)—optional
- geography game cards

### To prepare:

Create geographic criteria that, when read, will eliminate players from the game (see rules below). Write one statement per card. For example, a card that states *all equatorial countries* will force all players standing on countries straddling the equator to sit down (or remove their chips from play).

### Sample criteria:

all South American countries

all landlocked countries

the Pacific Ocean

all countries east of India and west of Japan

all countries bordering the Atlantic Ocean

all land and sea locations in the Northern Hemisphere

## **Background:**

This activity is designed for playgrounds where players can run around; however, you can adapt the game for smaller flat surfaces as well by playing with chips or game markers instead.

## **Steps:**

Inform your group it will be playing a game on the world map somewhat similar to musical chairs. The rules are as follows:

1. While the music plays, everyone is free to roam the Earth (or move his or her chip).
2. When the music stops, players must freeze in their tracks, and listen carefully to the statement you read from the game card you have randomly pulled from the pack.
3. Players whose position on the map is described by what you read on the card must remove themselves from play. Have them sit down near the map's border (or remove their chips).
4. Players continue to roam and halt according to the random breaks you make in the music. As the game progresses, fewer and fewer players will remain. Those still in the game after a pre-determined length of play are world champs!

# What Shape Am I?

(grades 3–9)

## Time Needed:

One session for map work and one session for research

## Summary:

Participants trace shapes of particular countries on the world map and discuss reasons for the locations of specific borders.

## Curriculum Link:

**geography:** location, shape, and topography of selected countries

**social studies:** political history of selected countries

**research skills**

## Background:

Physical factors such as rivers, mountains, and coastlines often form natural boundaries for a country. Many times, however, a country's shape reveals as much about its history as its topography. Human factors such as wars, treaties, ethnic demographics all influence borderlines too.

## Materials:

- world map
- sheets of tracing paper (or thin typing paper)
- cellophane tape (if needed)
- reference materials (topographical atlases, encyclopedia)
- colored pencils, crayons, or markers
- chalkboard or flip chart

**Note:** You can adapt this activity for different ages and interests. Emphasize steps 1–4 for younger groups, steps 4–7 for older groups.

## Steps:

1. Invite participants to join you in a hunt across the map for countries with interesting shapes. Many people see a boot and soccer ball when looking at Italy and Sicily; what do you see in Cuba? Australia? Senegal? Encourage imaginative responses.
2. Divide participants into pairs and have each pair trace on paper one or two countries from the world map whose shape is especially interesting to the two of them. Pairs may also want to color and/or decorate their traced shapes to illustrate what they resemble (e.g., put eyes on a country shaped like an animal).



3. When everyone is done, have pairs share their shapes with all or part of the whole group.
  - What do we “see” in the shape of this interesting country?
  - Who can identify this “mystery” country and/or locate it on the world map?

### **Variation:**

Invite pairs to share their shapes with the group without divulging the name and location of the country in question. After all shapes have been shared, distribute them to small teams. Challenge each team to work together to discover the name and location of each mystery country.

4. Re-focus your group’s attention to reasons why countries have different shapes. Discuss:
  - Why aren’t all countries the same size?
  - What causes countries to have different sizes and shapes?
  - Do countries ever change shape? Why? Can anyone give an example?
5. Have pairs (or individuals) find out why their chosen country has the shape it does. Have them consult a topographical map of their country and also research its history.

While they may not find reasons for the location of every border, challenge your researchers to identify as many factors as they can. For example, does a river or mountain range form the southern boundary; does a straight eastern edge suggest a political division? Encourage researchers to write down their findings on their individual maps, near the borders in question.

6. Have pairs share their findings. Make a list on the chalkboard of the most common factors influencing the placement of a country’s borders.
7. Display everyone’s labeled drawings next to the world map, if possible.

### **Peace Corps Connection:**

1. Have participants analyze the shape of the Volunteer’s country in a way similar to step #5 above. Make predictions about what caused the borders of this nation to be drawn where they were. Share the predictions with the Volunteer.
2. You may also want to ask the Volunteer to describe the size/shape of his or her country at an earlier point in its history. Why is it no longer this shape? What impact, if any, have these changes had on the country and its people?

# We are the World

(all grades)

## Time Needed:

Two sessions several days apart

## Summary:

Participants trace their family heritage on the world map.

## Curriculum Link:

**social studies:** immigration

**geography:** location of countries/regions

**mathematics:** quantifying data, creating charts

## Materials:

- world map
- adhesive colored dots which can be easily removed from the world map surface
- chalkboard or flip chart

## Background:

You can do this activity in one session. If many in your group are unsure of their heritage, however, you may want to do steps 3 and 4 several days later so these participants have a chance to talk to their families. As this activity involves personal information, you'll want to be sensitive in the manner in which you conduct it. Adapt the activity as necessary.

When introducing this activity, remind students that the United States is primarily a country of immigrants. Some of our ancestors came to the U.S. long ago, most freely, some by force. Others have arrived more recently. Only Native Americans have lived here for thousands of years, though long ago their ancestors arrived from other continents as well.

## Steps:

1. Have participants consider immigration issues in general. Discuss and record ideas:
  - Why do people immigrate? How many reasons can you think of?
  - What would it be like to leave a country and come to a new one? What would be difficult about doing so?
2. Inform your group that it will use the world map to locate what regions members' families originally came from.

Share your own genealogical history with participants. Place a dot on the country(ies) or region(s) you believe your ancestors came from. You may also want to explain the reasons for their immigration to the U.S., if known.

3. Invite everyone to place dots on the world map representing his or her family heritages. Those who may not know their specific ancestry can still place dots indicating likely world regions (Asia, Africa, Europe, and so on).
4. Survey the results as a whole group. Solicit general reactions, then discuss:
  - Which countries/regions seem to have been home for many of our ancestors? Why might so many people from **this** world region have settled in **this** area of the U.S.?
  - How might our dot distribution look different if we lived in a rural/urban area? Why?
  - How might our dot distribution look different if we lived on the West Coast or East Coast? In the US. Southwest/South/Midwest/Alaska or Hawaii? If we all lived in (name of another nation)? Why?
  - How would our dot distribution have looked different 100 years ago? Why? What might it look like 50 years in the future? Why?

### **Peace Corps Connection:**

Have your group ask the Volunteer about the cultural diversity in his or her host country:

- Does the Volunteer's country have many people who trace their heritage to other lands? Why or why not?
- If people in the Volunteer's country trace their ancestry to other places, what places are these? Why did people from these lands settle in the Volunteer's country? How did they get there?

### **Variation:**

Gather recent U.S. Census information about your region from a public library. Among other things, the Census breaks down information about your region's population by country of ethnic origin. Convert this data to percentage and have your group post this distribution on the world map as in steps 3 and 4.

# Made In...

(all grades)

## Time Needed:

One or two sessions

## Summary:

Participants locate countries on the world map that have manufactured common objects in their daily lives.

## Curriculum Link:

**geography:** location of countries/regions; natural resources

**social studies:** global economics; trade routes

## Materials:

- world map
- small squares of paper which can easily be affixed and removed from the world map cellophane tape (if needed)
- pencils
- 30–50 readily available objects from everyday life

The items must indicate their country of manufacture, e.g., “Made in China.” You can collect them before the activity or wait and have participants gather them from their immediate surroundings. In a school setting, items could include any or all of the following.

- classroom objects (globe, crayon box, ruler, and so on)
- contents of student backpacks or desks, voluntarily shared
- labeled apparel (shirts, shoes, jackets), voluntarily shared

## Background:

This activity introduces the concept of the interdependent global economy. Through just a sampling of items, participants identify a few patterns in international trade. In many cases, the patterns would have been far less complex one hundred years ago when a locality’s economy expanded little beyond its immediate region. Today, of course, is a different story. Because of advances in technology and infrastructure, natural resources move freely across the world and manufacturing centers dot the globe.

Keep in mind that many countries exporting goods may not be represented in your map sample. First, your sample is very small. Big U.S. import items such as automobiles, electronics, and petroleum products probably will not be represented in your sample at all. Second, not all nations trade primarily with the United States; other markets exist for both geographic and political reasons.

Currently the United States imports more than it exports. A nation imports items for a variety of reasons: it may lack the human or natural resources to manufacture the specific product; national demand may outstrip the ability to provide the item; and/or it is more economical to import the item than to manufacture it within country.

## Steps:

1. Inform your group it will be investigating where everyday objects have come from. In anticipation of the lesson, have members “guess-timate” what percent of items they find will be made in the U.S. compared to those made overseas.
2. Have participants work individually (or in pairs) to locate items in their immediate environment that state their country of manufacture. To avoid duplication of effort, you may need to assign teams to specific search areas.
3. Instruct searchers to draw a small sketch of each item on a paper square. Have them also label the drawing with the name of the item and its country of origin.
4. When participants have identified and drawn at least 30 different items, have them go to the map and affix their squares by the relevant countries.
5. As a group, examine the product distribution on the world map. Solicit general reactions; then analyze the data by country, region, or continent. Look for patterns both in distribution and in types of items exported from particular regions. Discuss:
  - a. What regions of the world seem to be the source of many of our imported items?
    - Any pattern to the type(s) of items we import from this region?
    - Why might this region export these particular things to the U.S.?
    - How would items from this region reach the U.S.? What routes might the items take to get here? How long might that take?
  - b. What regions of the world aren't as well represented in our sample? What might be some of the reasons for this?
  - c. How would our product distribution have looked different 50/100 years ago? Why?
  - d. What countries/regions of the world do you think import items from the U.S.? Why? What kind of items might these be? Why?
6. For advanced groups: Have members group research topics related to U.S. trade relations with other countries. Have researchers share their findings with the whole group, making use of graphs/ charts and the world map as appropriate. Possible topics:
  - a. major U.S. import/export items
  - b. major U.S. trading partners
  - c. major trade routes to and from the U.S. (Trace them on an overlay; see p. 42)
  - d. trade imbalances and economic effects
  - e. major exports/imports of selected foreign nations

## **Variation:**

Have participants identify types and sources of all materials used to make one specific everyday product, such as a pencil, a chocolate bar, a running shoe. They'll need to write to the manufacturer for assistance. Share and post the information on the world map as it becomes available.

## **Peace Corps Connection:**

1. Have your group research the major imports and exports of the Volunteer's country.
  - Why might this country import the items it does?
  - Why might this country export the items it does?
  - With what nations does this country trade? Why?
2. Ask the Volunteer to list common manufactured items in his or her host country. Where were these items made? Post this data on the map as in step 4. How are the patterns similar/different from the U.S. import data? Why might this be?

# World Watersheds

(grades 6 and up)

## Time Needed:

Varies

## Summary:

Participants compare/contrast data drawn on an overlay across their world map

## Curriculum Link:

varies

## Materials:

- world map
- atlases that depict major rivers in each of the world's regions
- large sheets of acetate or other transparent plastic sheeting to cover the world map
- strong adhesive tape
- markers to use on the plastic overlay: permanent or washable—your choice, but test on the overlay beforehand
- reference materials related to your specific topic

## Steps:

1. Secure a sheet (or sheets) of plastic across your world map.
2. Have participants use markers to trace the outline of the continents and large land masses onto the plastic overlay.
3. Assign participants to specific regions on the map. Have them locate the major river systems in that area.
4. When the watershed overlay is complete, have participants look for connections between their data and the information on the world map beneath the overlay:
  - How frequently do rivers form natural boundaries between countries?
  - How frequently are country capitals located on a river or near a body of water?
5. Extend the investigation by doing a **second** overlay directly on top of the first. Repeat steps 1 and 2. This time have participants consult atlases to depict one of the following: mountain ranges, location of major cities, regional population densities. Analyze the results:
  - What connections do participants see between any of these depictions and the location of water systems?

- What predictions could they make about specific countries on the world map based upon these additional dimensions of information?

### **Variations:**

global patterns in vegetation

global climate zones

global patterns in agriculture

global patterns in population

distribution of world's language groups

distribution of world's major religions

former areas of colonialism

ocean currents

historic routes of explorers/navigators

current trade and travel routes

hurricane tracking

jet stream/prevaling wind patterns

areas of acid rain fallout

wildlife of the world (tape pictures of animals to country/regions of habitat where is it possible to predict the climate or terrain of that region based upon the type of wildlife living there?)

bird/whale migration routes

global reserves of oil and other natural resources

earthquake/volcano zones

plate tectonics

daily temperatures in select cities

locations of world-famous monuments/structures

time zones

world tours

hot spots in the news

comparative data between nations: per capita GNP, consumption rates, infant mortality rates, water use, AIDS cases, population density, percent of persons under 15, military expenditure



# Math and the Map

## Summary:

Participants use data from the world map to reinforce mathematical skills.

## Curriculum Link:

geography  
mathematics

## Materials:

- world map
- paper and pencils
- reference materials as needed

## Background:

You can incorporate the world map into many areas and levels of mathematics. Adapt the activities below to the needs and abilities of your particular group.

## Estimation:

- Numbers of countries in a given region.  
*Example:* How many countries would you guess are in Africa?
- Areas of countries in relation to one another.  
*Example:* How many times might France fit within the continental United States? How could we find out? (Note: the Robinson Projection, like other map projections, creates some slight land-mass distortions.)

## Venn Diagrams (sorting by principle):

Sets and subsets of countries sharing given criteria.

*Example:* Which equatorial countries in South America and Africa are landlocked?

## Advanced Calculations:

- Adding/subtracting time.  
*Example:* If it's 5:30 a.m. in Bangkok, what time is it in Washington, D.C.? (You'll need to have a time zone chart handy, or make an overlay-see p. 42.)
- Calculating population density.  
*Example:* How does the population density of Bangladesh compare with that of Pakistan? of the United States? (Divide area by population and post the figures on the map.)

- Using fractions.  
*Example:* What fraction of Central American countries border both the Atlantic and Pacific oceans?
- Finding percentage.  
*Example:* What percent of African nations are in the Northern Hemisphere?

### **Graphs and Charts:**

- Creating bar graphs to compare information between countries.  
*Example:* What are the five most populous nations in Asia?
- Creating pie charts.  
*Example:* What percent of Caribbean islands are territories? What percent of these belong to the United Kingdom? the United States?

### **Interpreting Statistics:**

Comparing similar data among different countries, representing information in a visual, non-graph way.

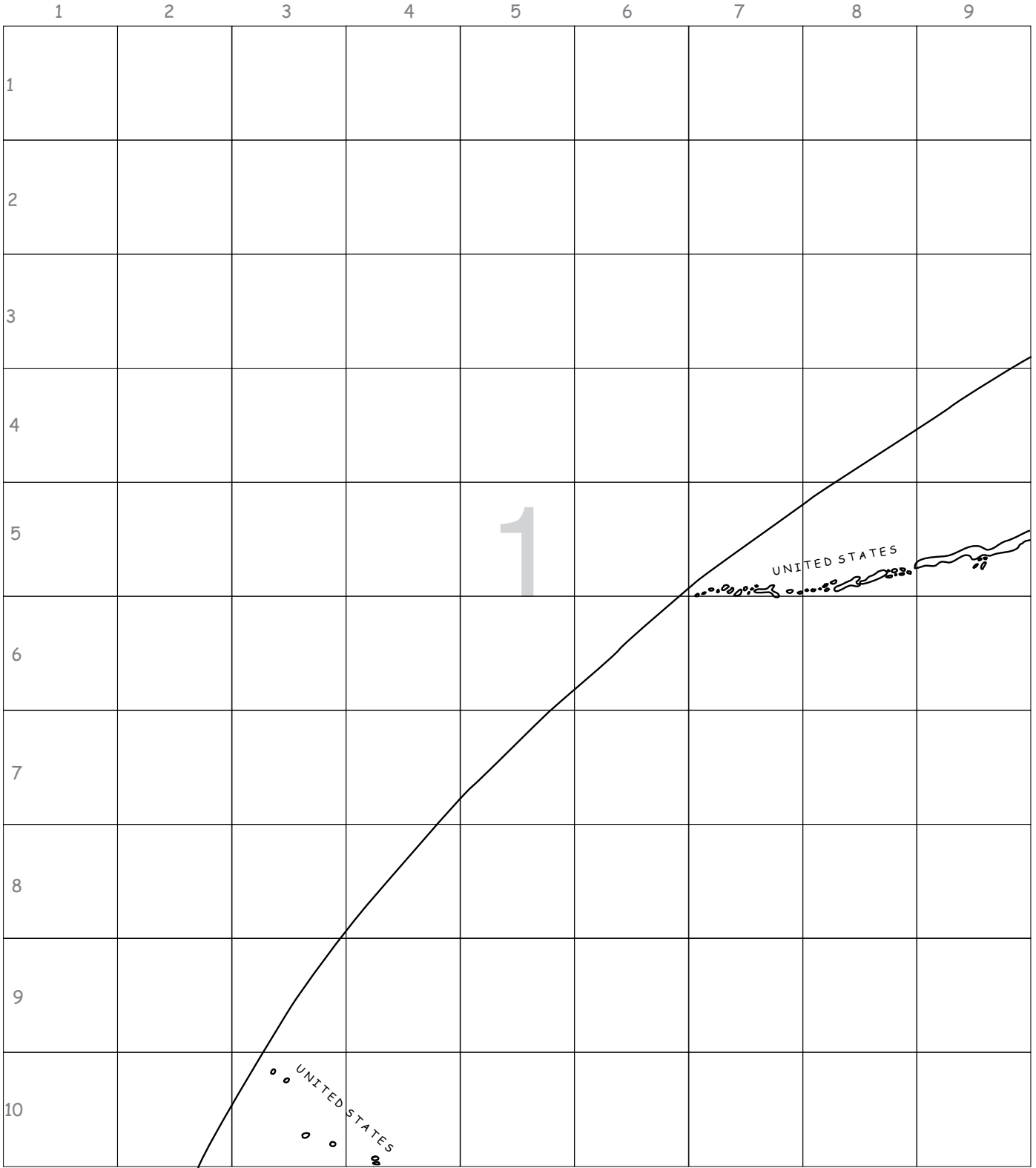
*Example #1:* Using a resource like a world almanac, find the per capita GNP for various nations. Represent this information on your map, using adhesive (but removable) sticker dots, where one dot = x number of dollars. Remember to create a key to accompany your dot display.

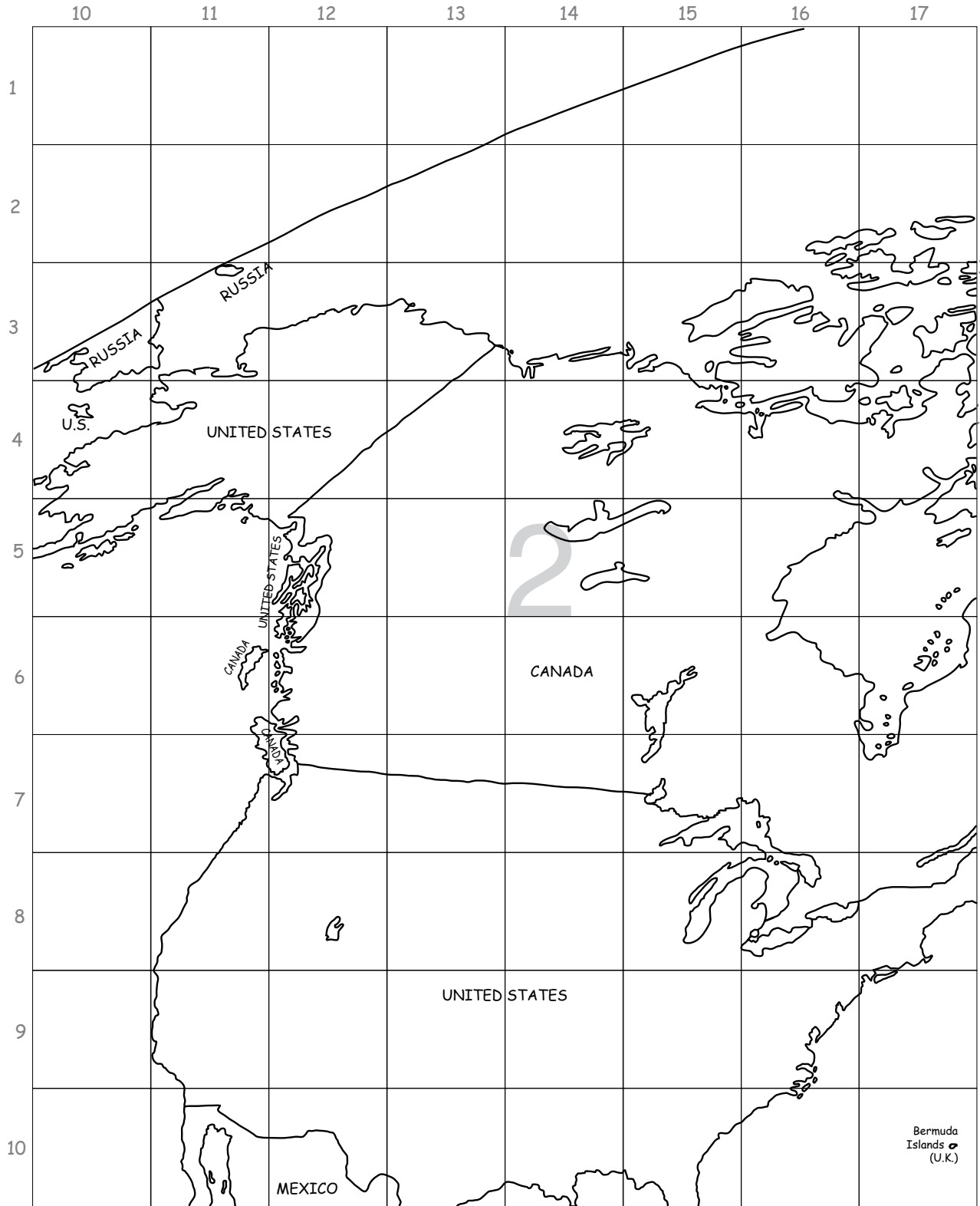
*Example #2:* Collect daily temperature readings from cities around the globe (check daily paper). Post the data on the world map:

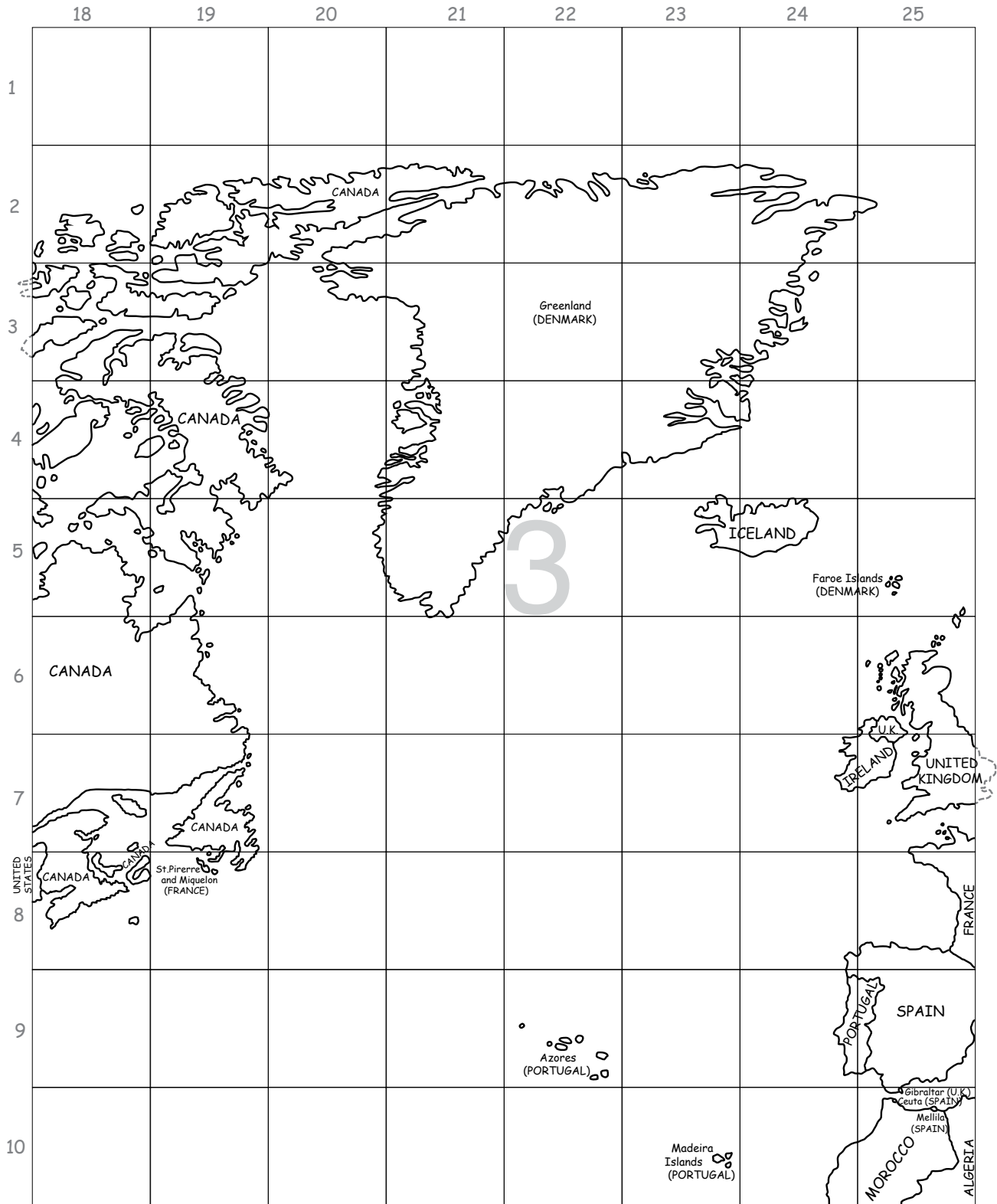
- track temperature patterns for one or more days
- calculate average daily highs/lows, or range
- search for patterns in global temperature distribution: What's the effect of longitude? latitude? being near bodies of water? elevation?



## **Part III: Resources For Making Your World Map**

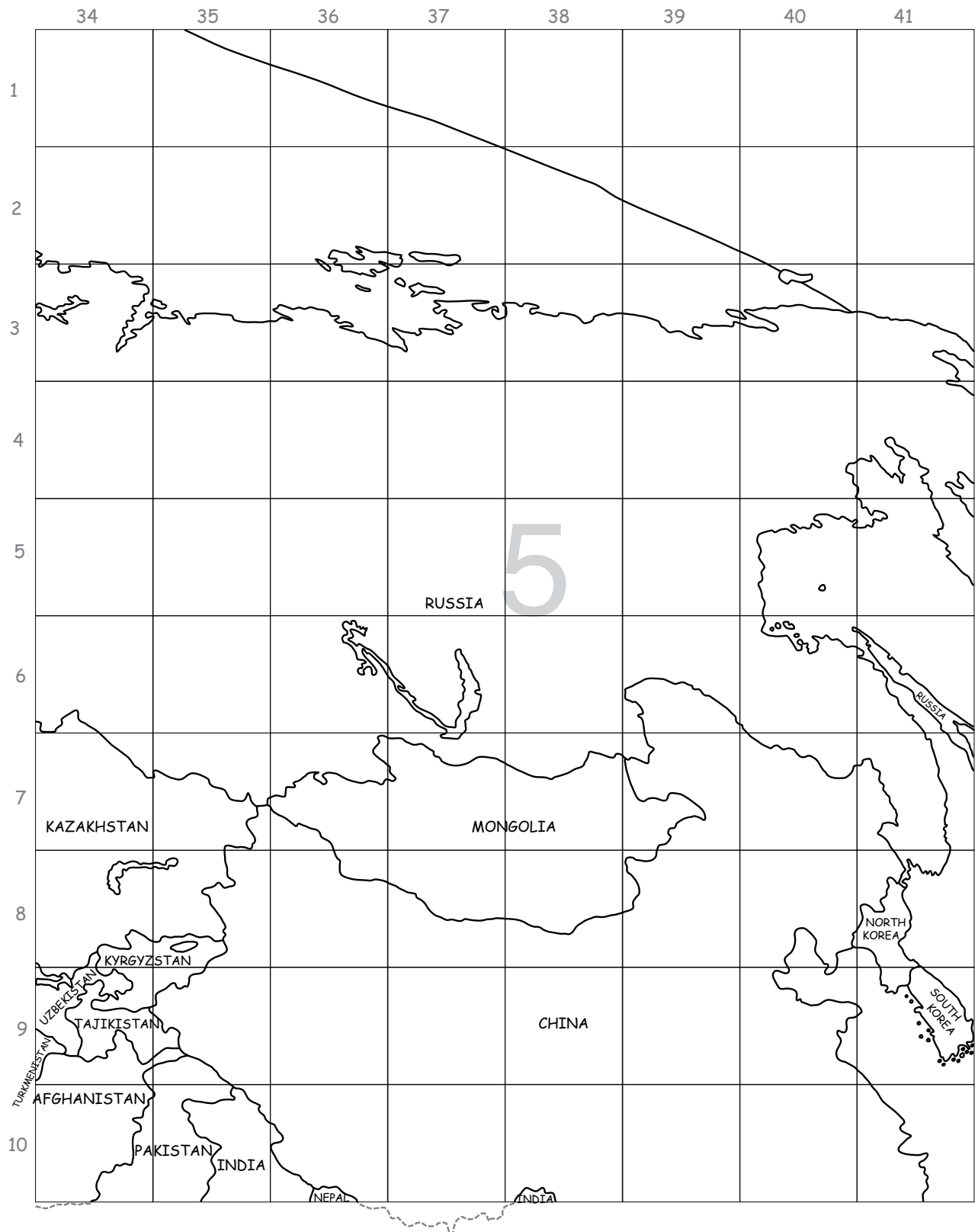


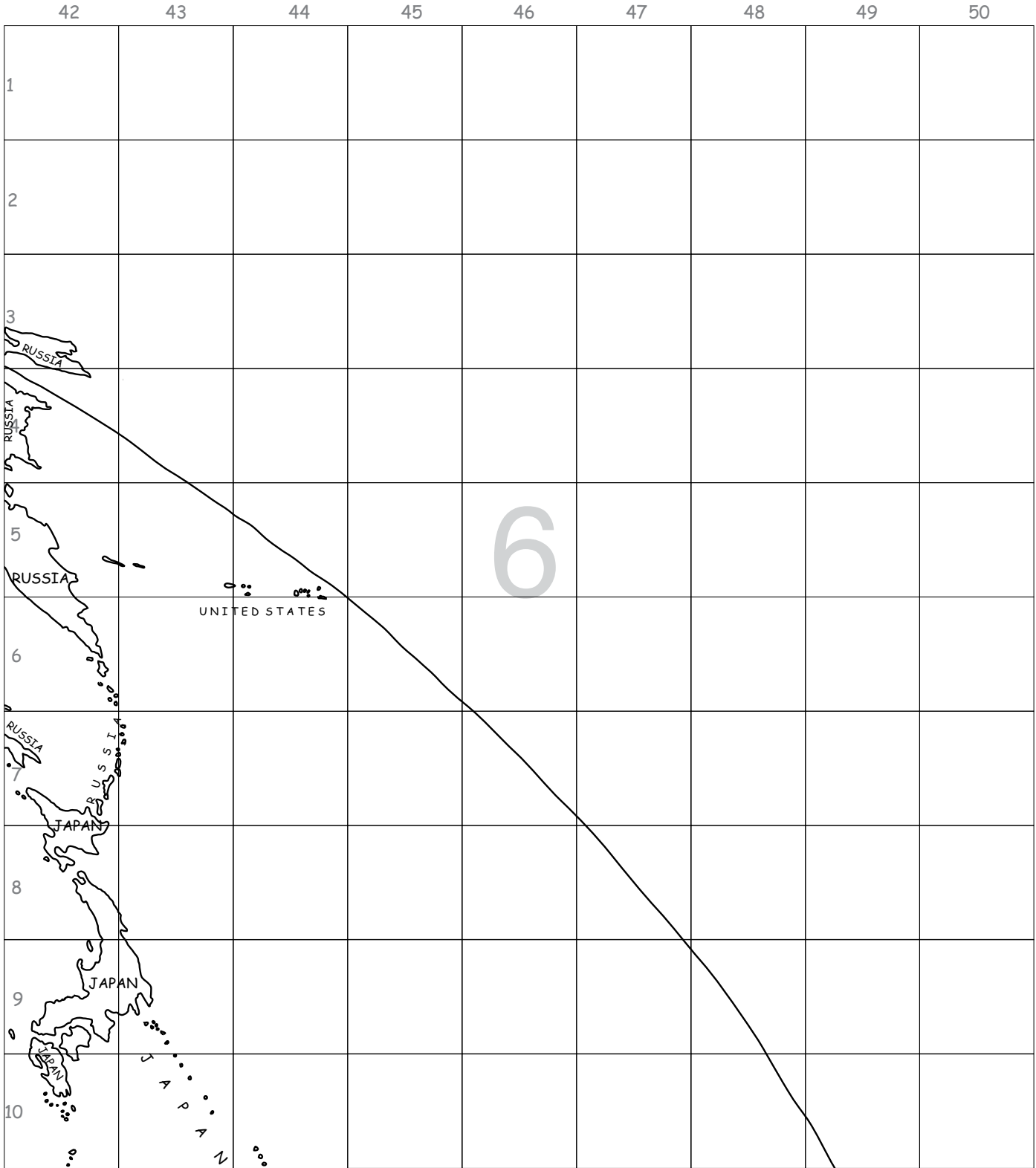


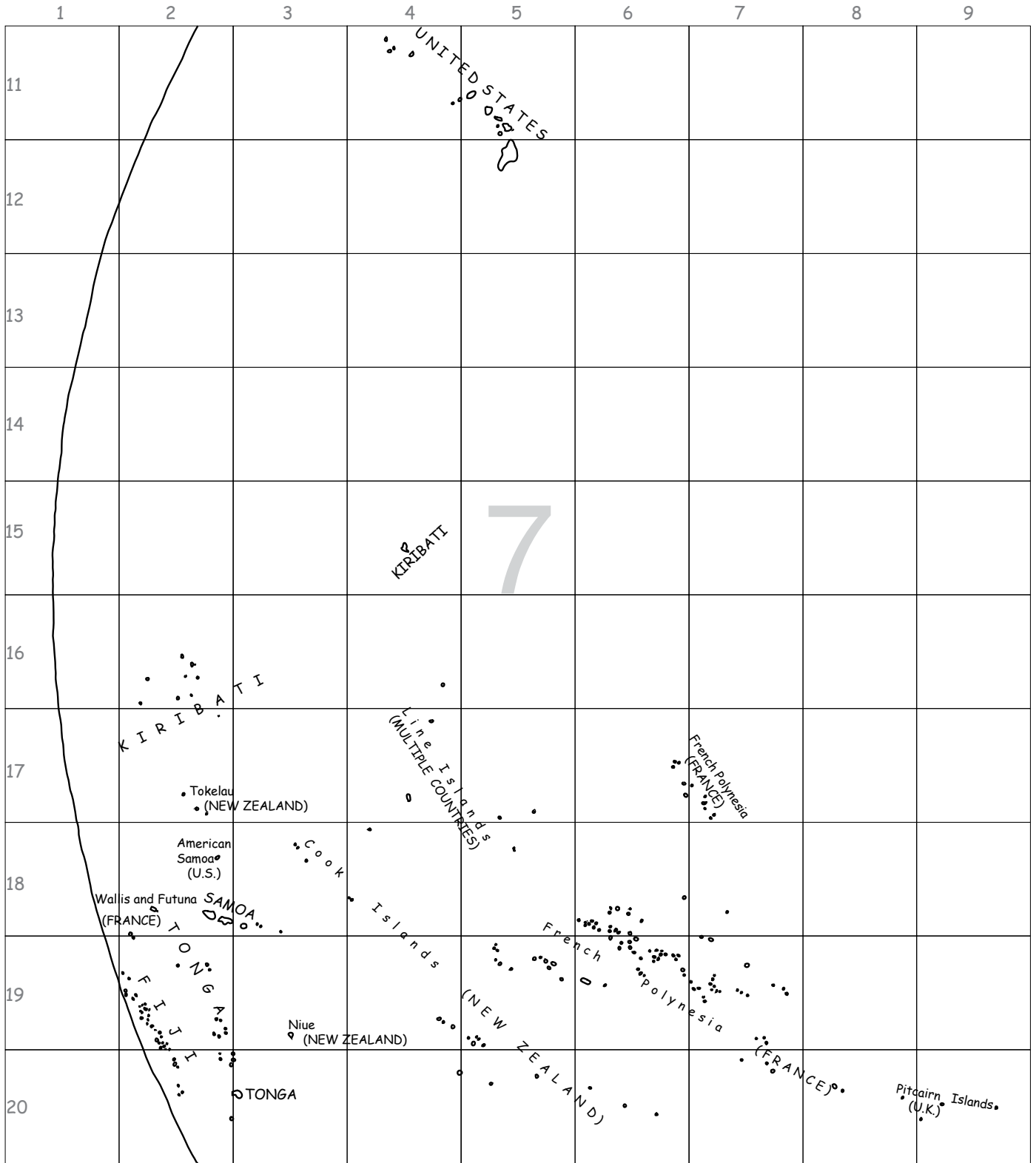


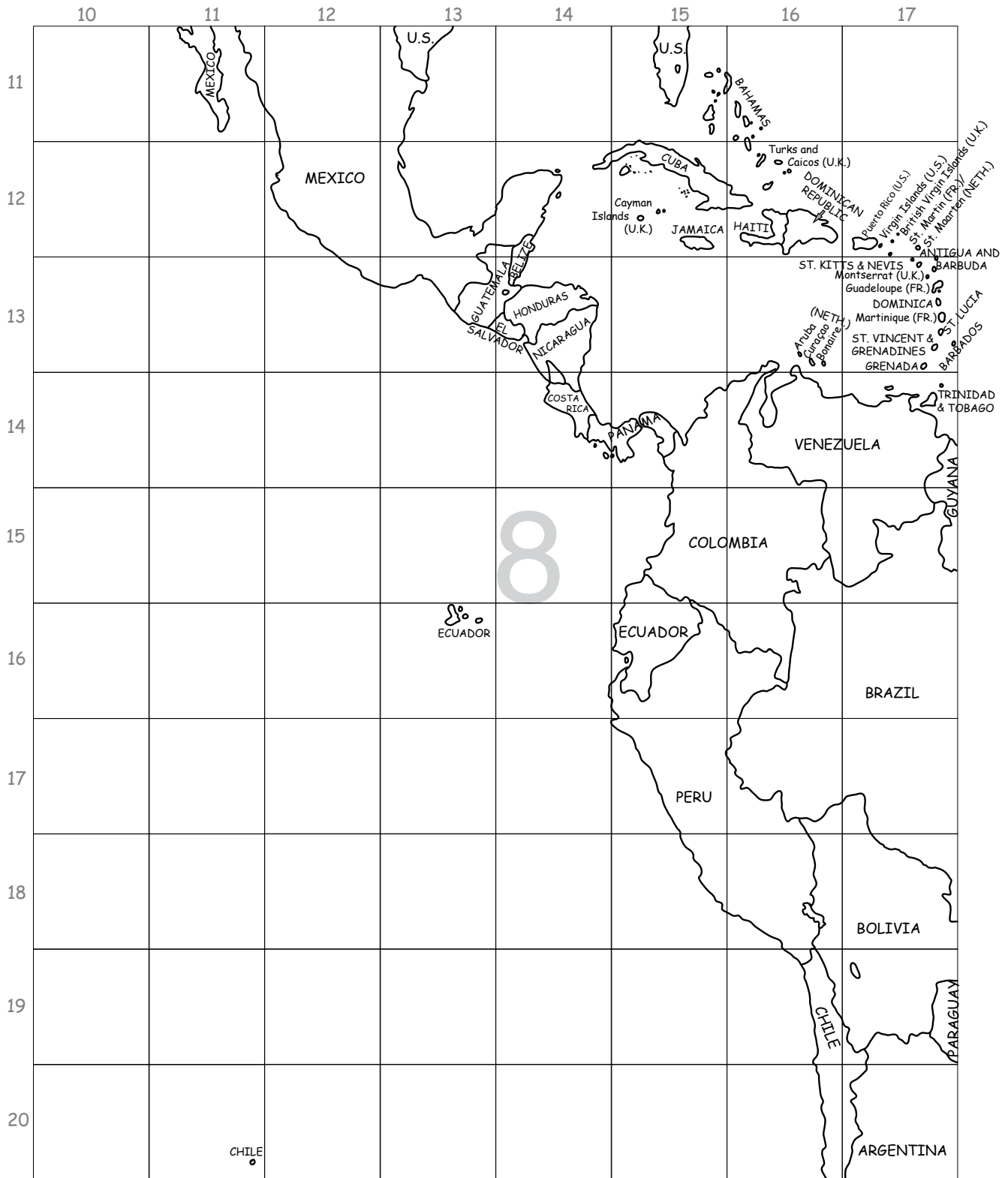


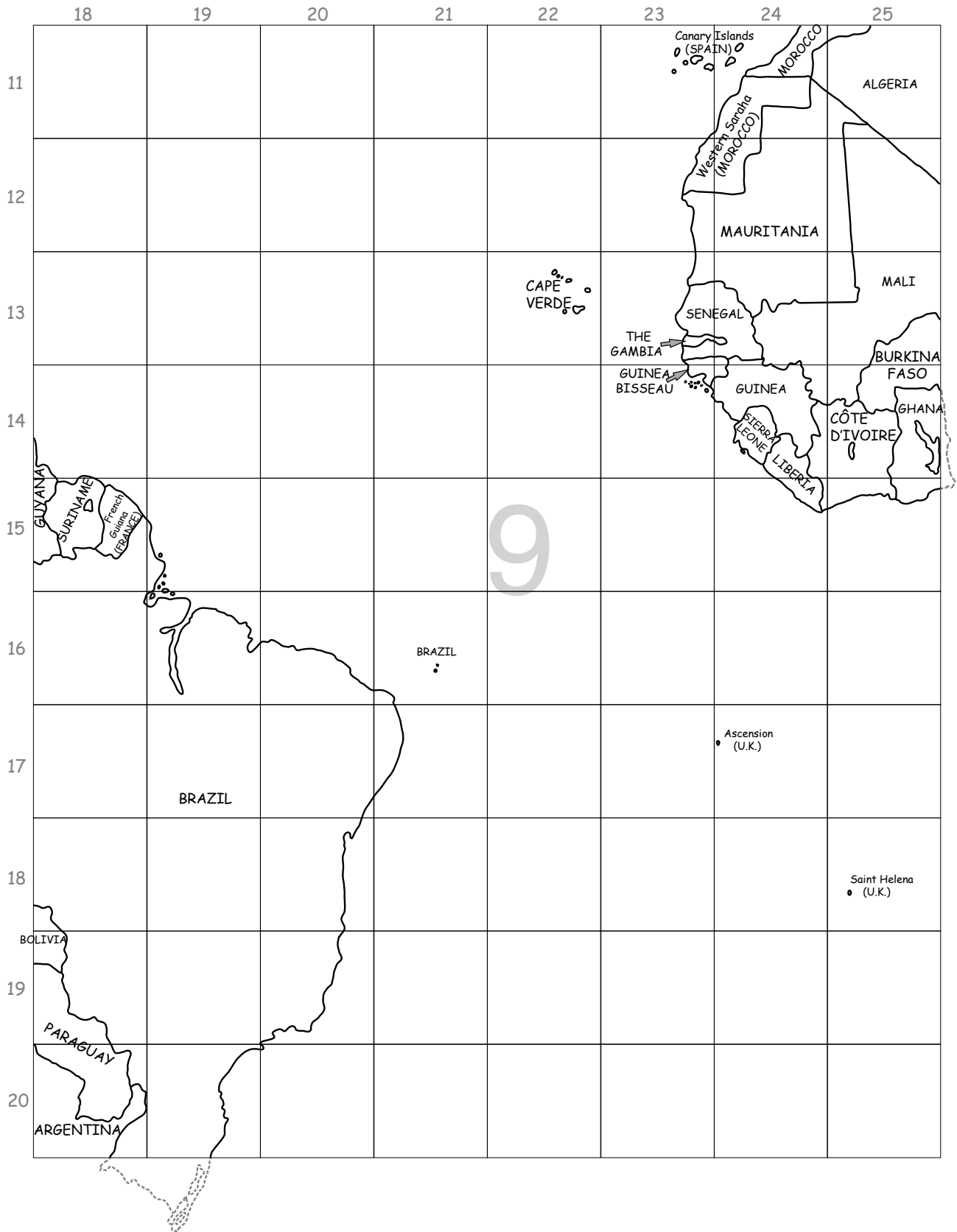


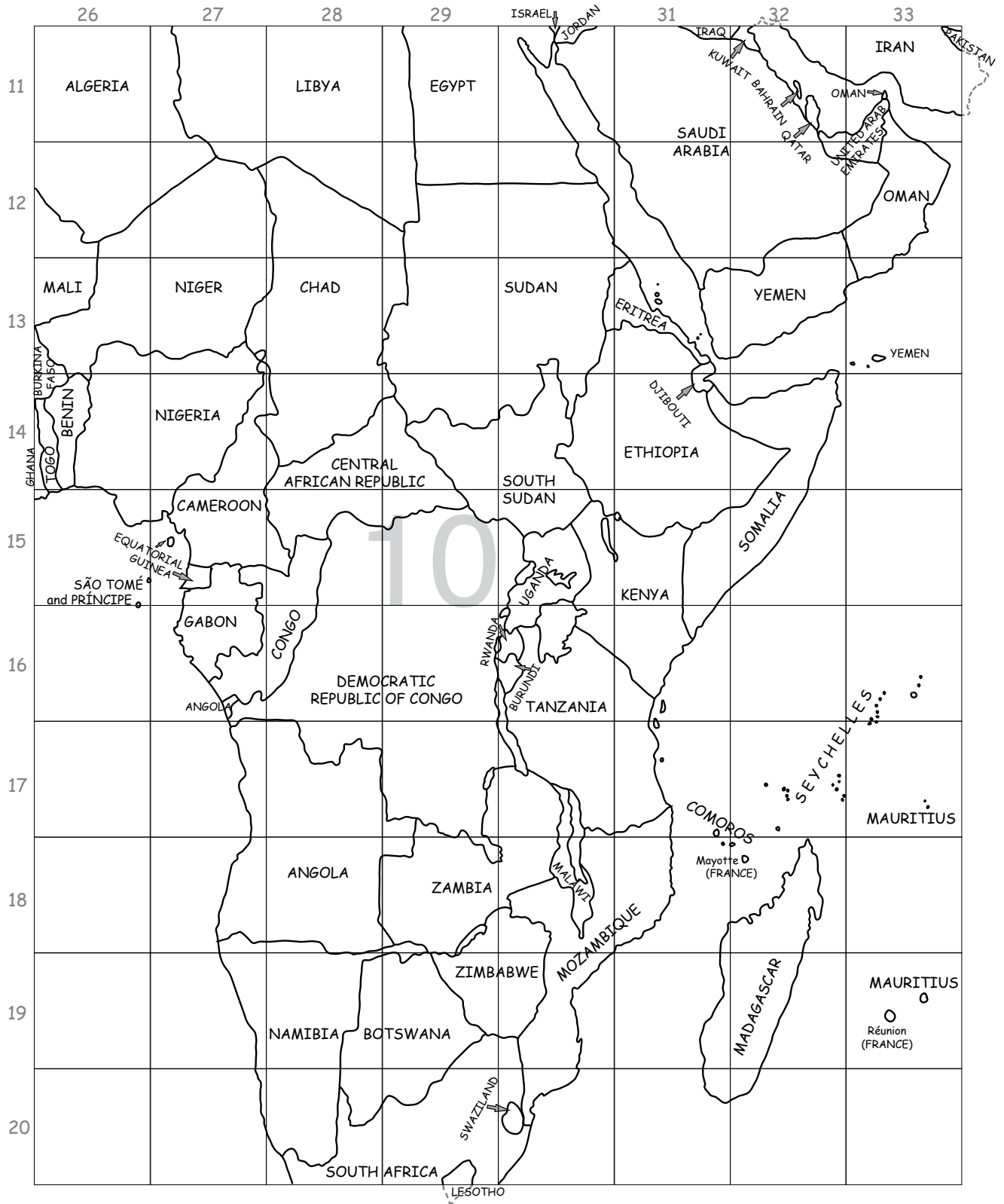


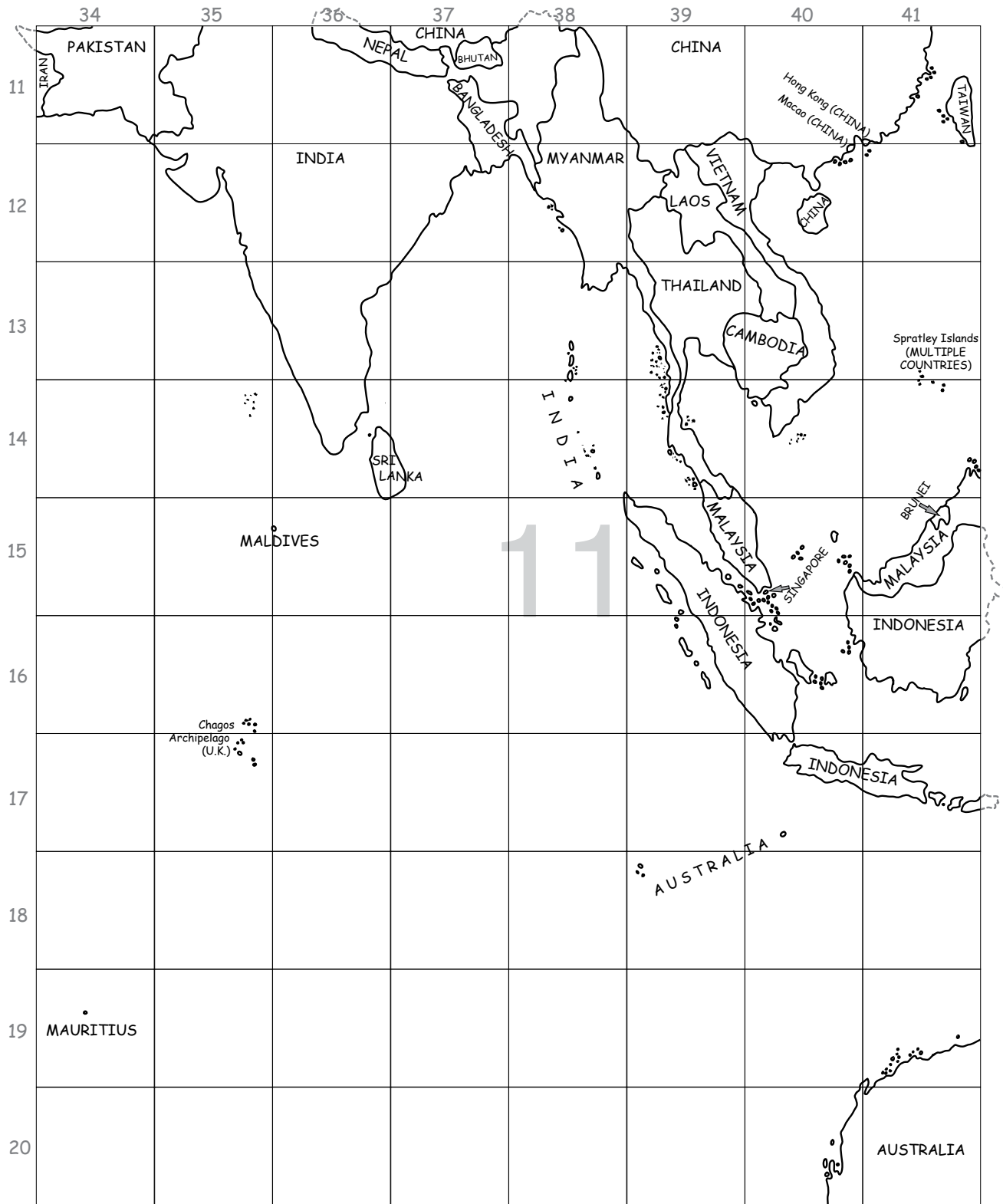


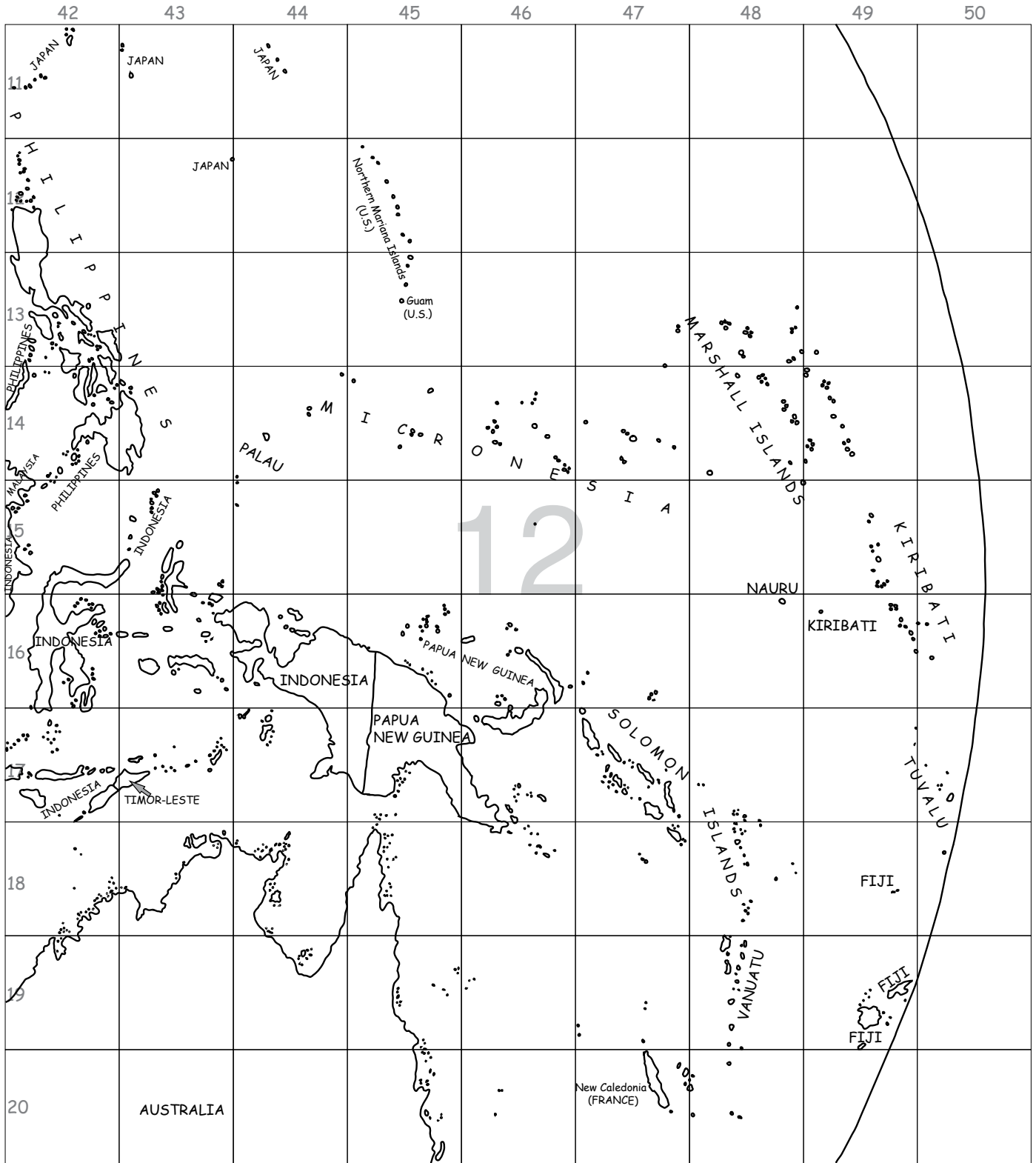




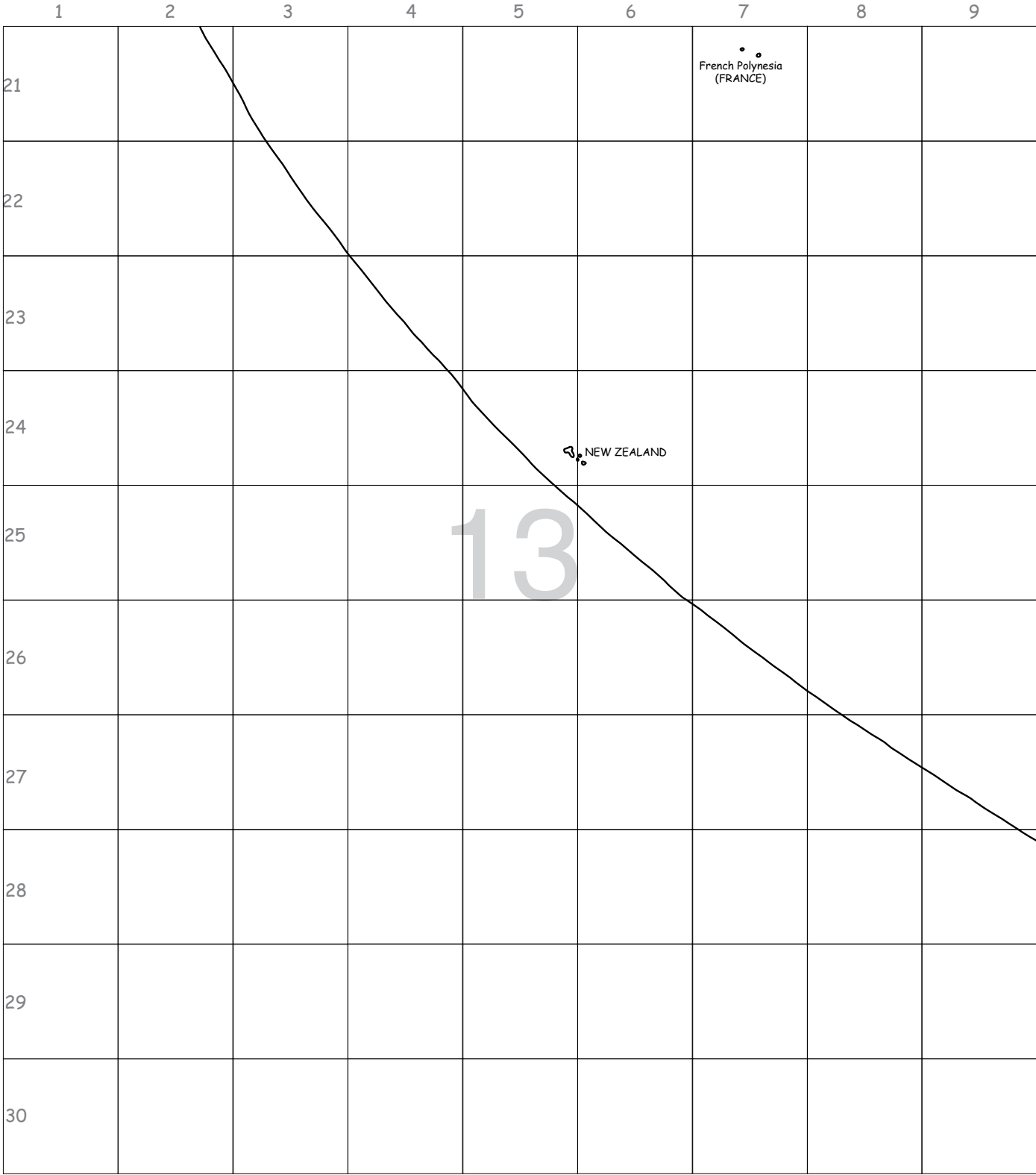


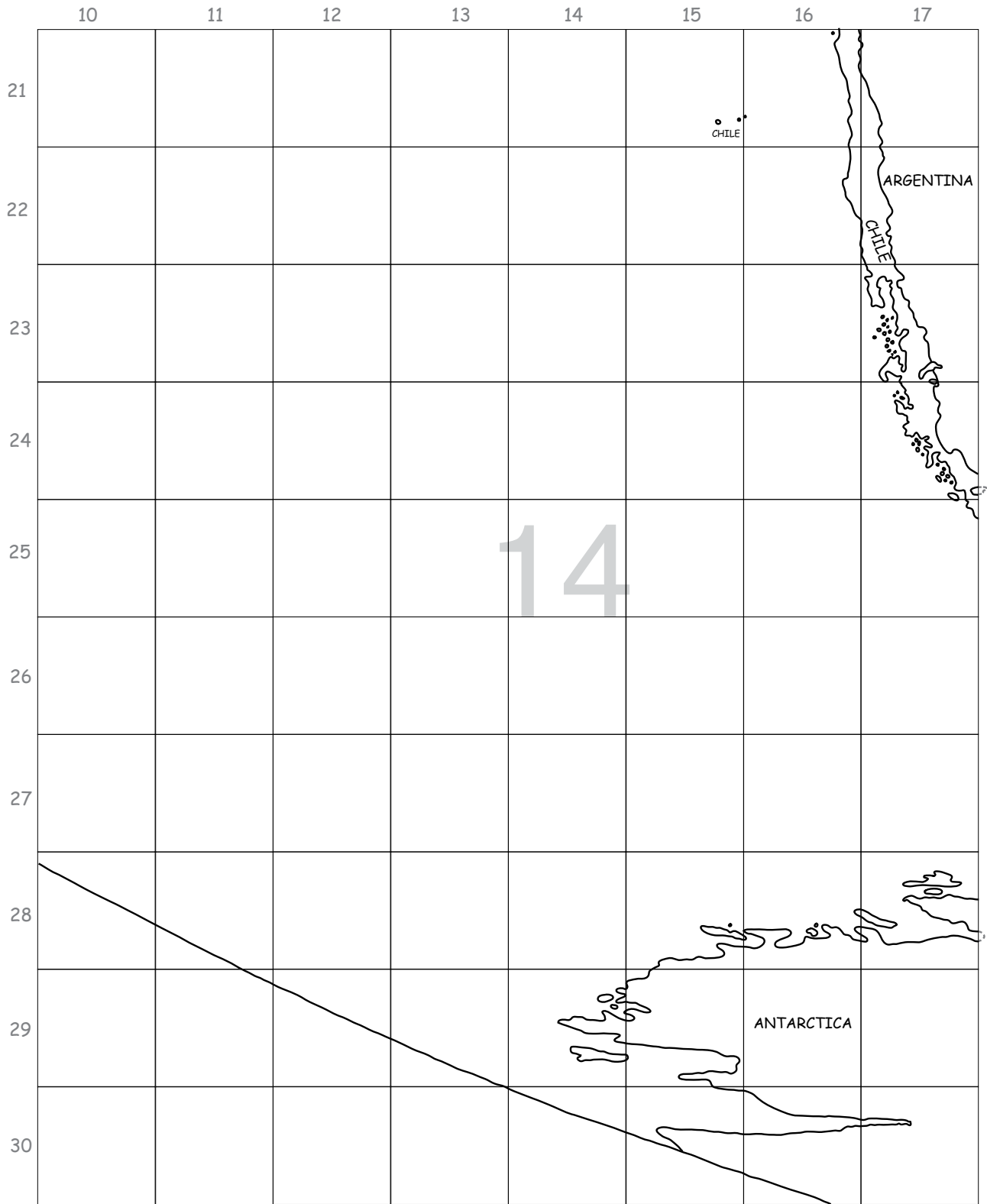


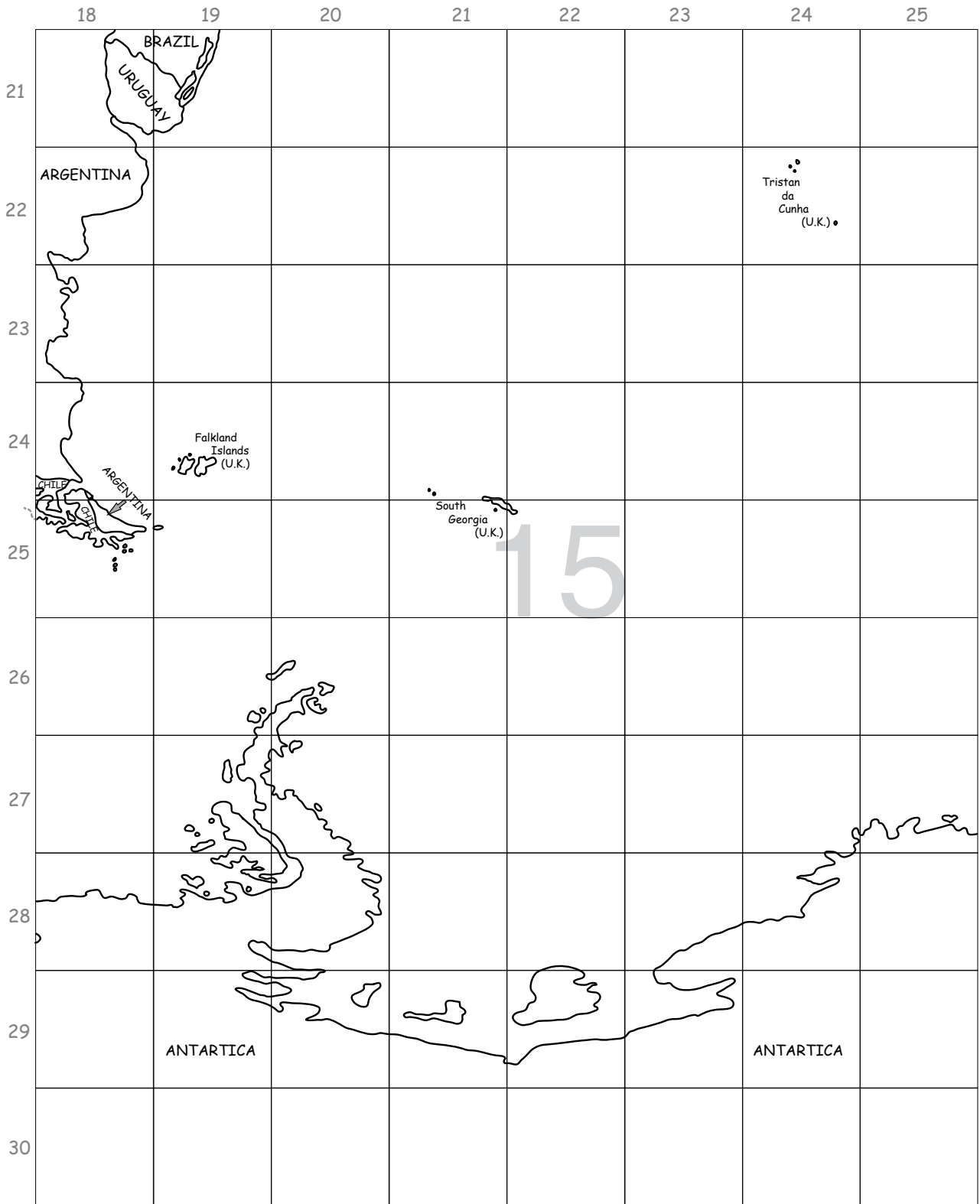


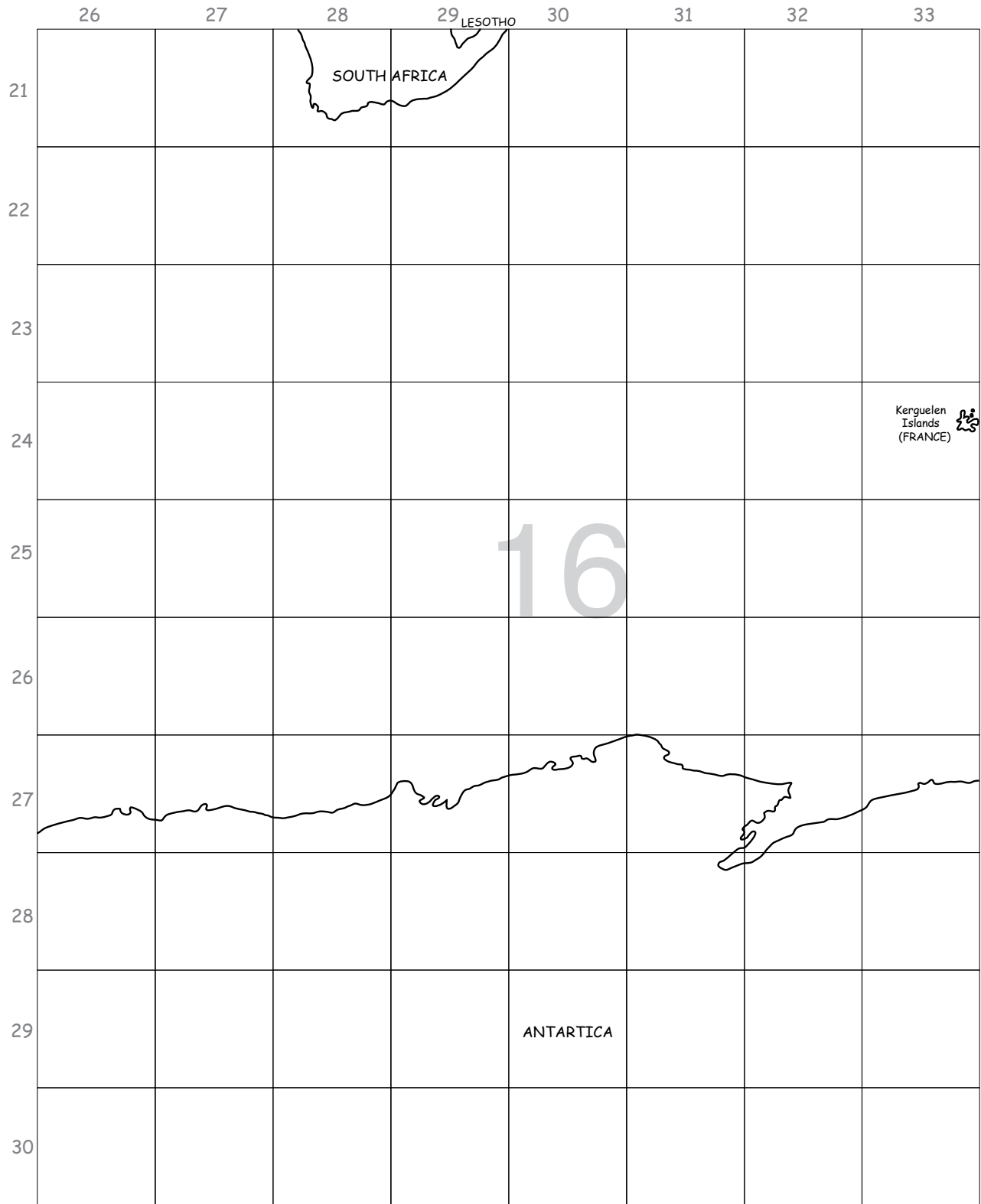


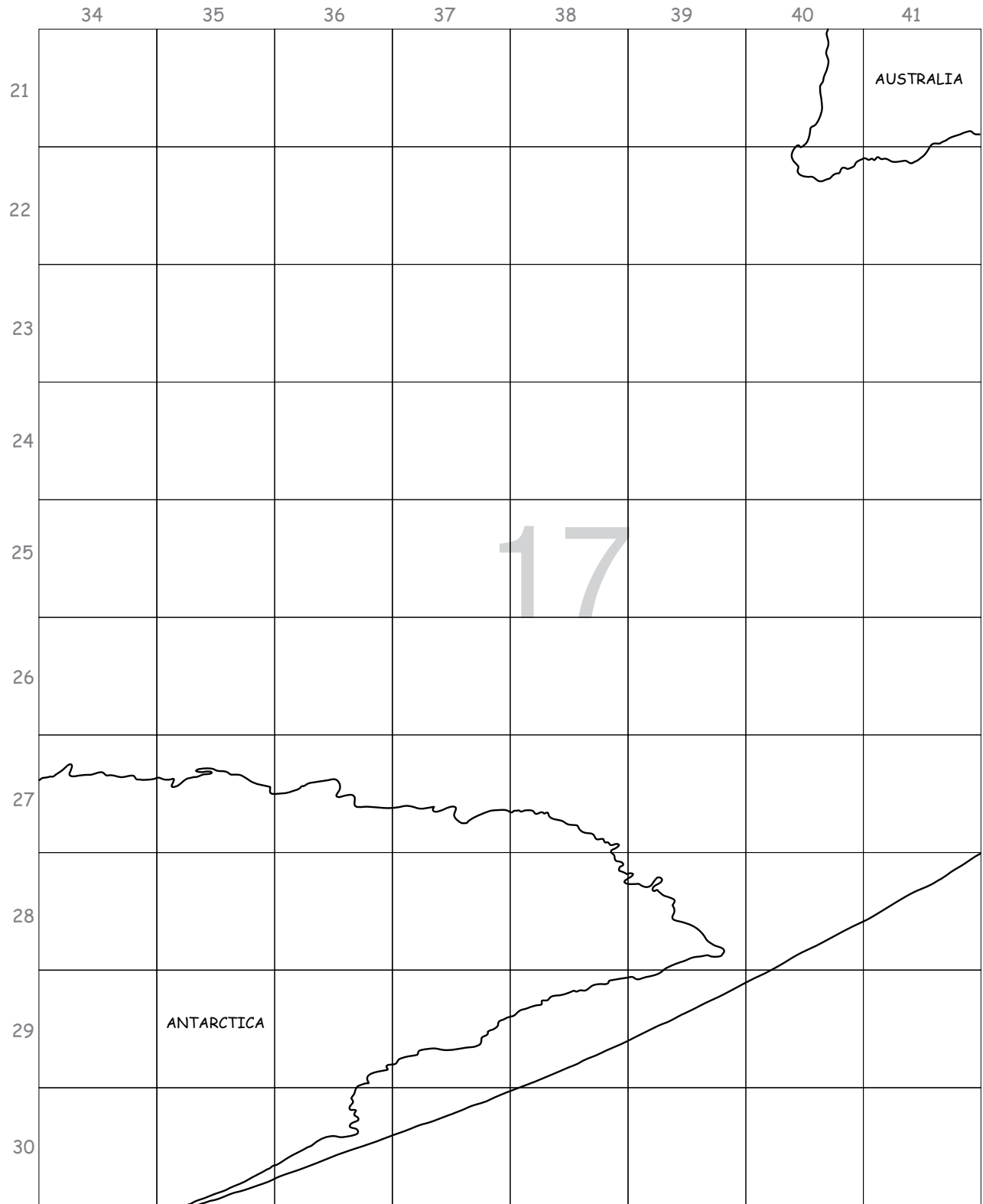


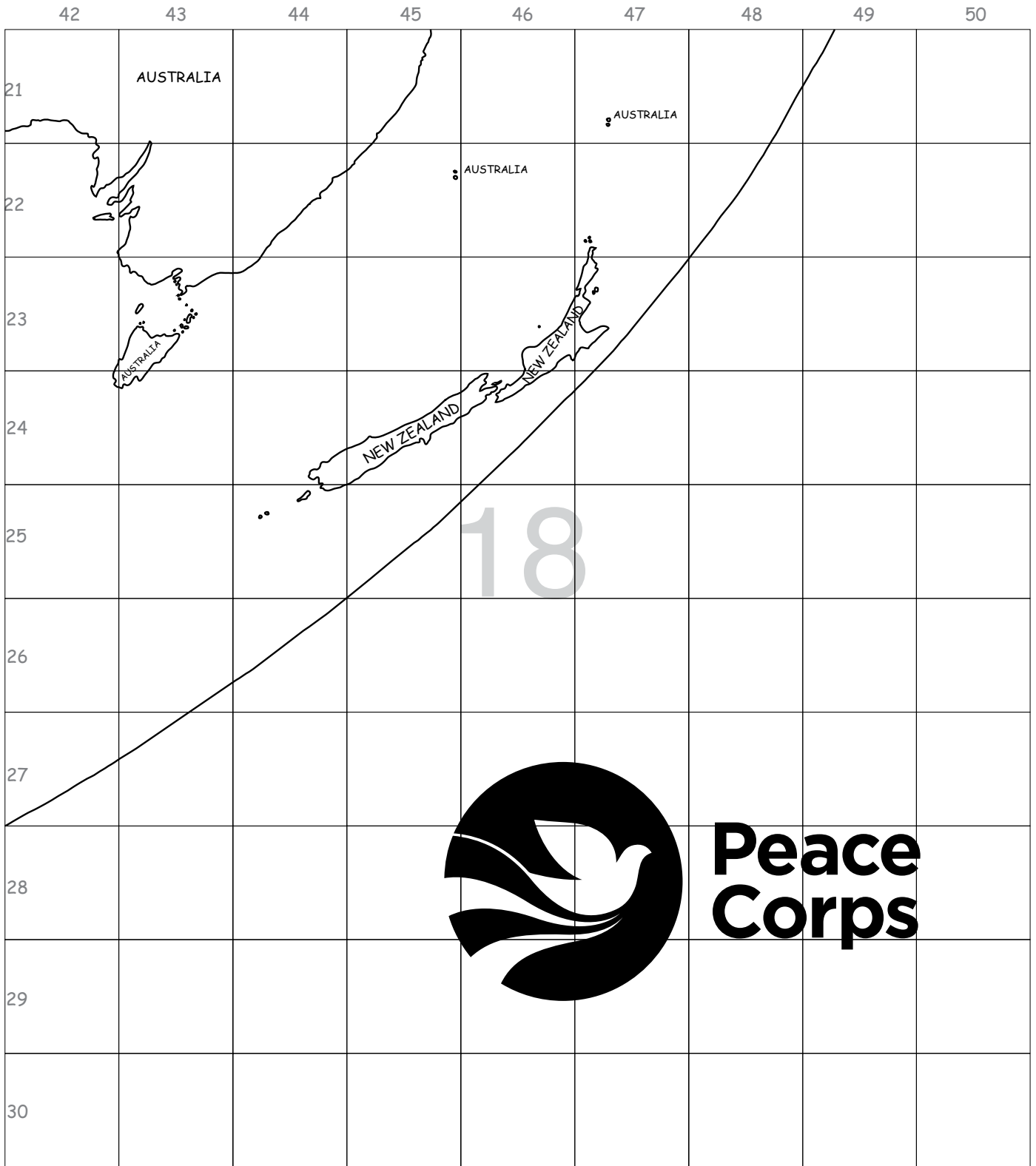


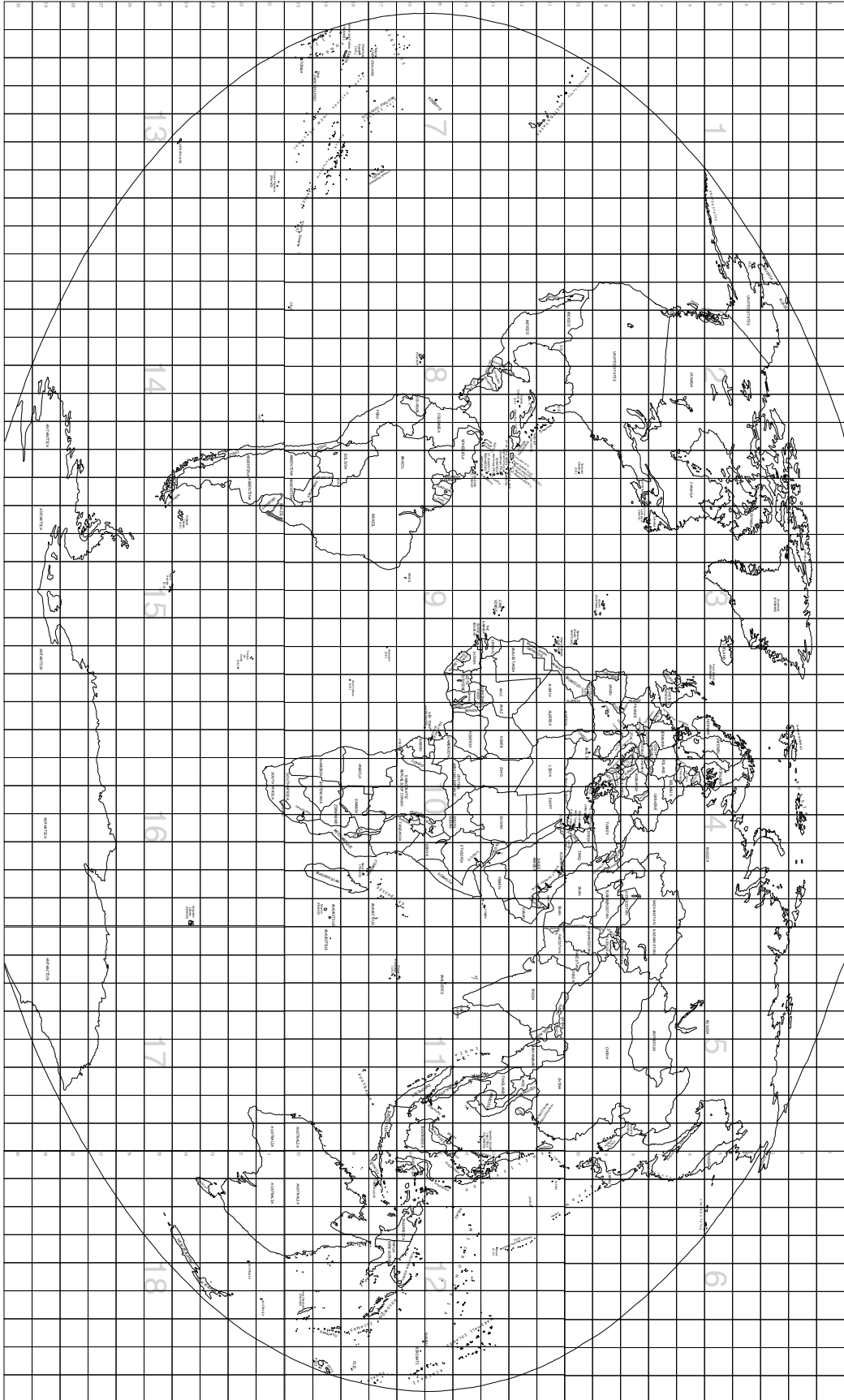












# Color Scheme and Index for Countries and Nearby Areas

Creating an accurate list of the regions of the world is no easy task, and one that geographers have wrestled with for a long time. We decided to group countries by continent, so a familiar region like Central America appears with North America. Oceania, which is not a continent, is listed with Australia for convenience and is used as a heading to represent the countries and other islands in the tropical areas of Pacific Ocean. Islands outside the Caribbean Sea and tropical Pacific Ocean area are grouped with the nearest geographically adjacent continent.

The continents Africa, Asia, Australia, Europe, North America, and South America are listed alphabetically below. The seventh continent, Antarctica, does not contain a recognized country, but is labeled on the World Map Project map. Antarctica is generally painted white. Every fifth line is underlined to aid readability.

<b>AFRICA</b>			
<b>Color</b>	<b>Name</b>	<b>Capital</b>	<b>Map Page Number</b>
Green	Algeria	Algiers	3, 4, 9, 10
Green	Angola	Luanda	10
Orange	Benin	Porto-Novo	10
Yellow	Botswana	Gaborone	10
Green	Burkina Faso	Ouagadougou	9, 10
Yellow	Burundi	Bujumbura	10
Pink	Cameroon	Yaoundé	10
Green	Cape Verde	Praia	9
Yellow	Central African Republic	Bangui	10
Light Green	Chad	N'Djamena	10
Green	Comoros	Moroni	10
Red	Congo	Brazzaville	10
Pink	Côte d'Ivoire	Yamoussoukro	9
Pink	Djibouti	Djibouti	10
Blue	Democratic Republic of Congo	Kinshasa	10
Yellow	Egypt	Cairo	4, 10
Light Green	Equatorial Guinea	Malabo	10
Blue	Eritrea	Asmara	10
Green	Ethiopia	Addis Ababa	10
Orange	Gabon	Libreville	10
Orange	Gambia, The	Banjul	9
Light Green	Ghana	Accra	9, 10
Red	Guinea	Conakry	9
Pink	Guinea-Bissau	Bissau	9
Purple	Kenya	Nairobi	10



<b>AFRICA</b>			
<b>Color</b>	<b>Name</b>	<b>Capital</b>	<b>Map Page Number</b>
Blue	Lesotho	Maseru	10, 16
Light Green	Liberia	Monrovia	9
Purple	Libya	Tripoli	4, 10
Yellow	Madagascar	Antananarivo	10
Yellow	Malawi	Lilongwe	10
Yellow	Mali	Bamako	9, 10
Blue	Mauritania	Nouakchott	9
Light Green	Mauritius	Port Louis	10, 11
Red	Morocco	Rabat	3, 9
Light Green	Mozambique	Maputo	10
Pink	Namibia	Windhoek	10
Red	Niger	Niamey	10
Blue	Nigeria	Abuja	10
Light Green	Rwanda	Kigali	10
Green	São Tomé & Príncipe	São Tomé	10
Light Green	Senegal	Dakar	9
Orange	Seychelles	Victoria	10
Blue	Sierra Leone	Freetown	9
Red	Somalia	Mogadishu	10
Red	South Africa	Pretoria	10, 16
Red	South Sudan	Juba	10
Orange	Sudan	Khartoum	10
Green	Swaziland	Mbabane	10
Red	Tanzania	Dar es Salaam	10
Yellow	Togo	Lomé	10
Light Green	Tunisia	Tunis	4
Pink	Uganda	Kampala	10
Orange	Zambia	Lusaka	10
Purple	Zimbabwe	Harare	10

<b>AFRICA: Entities, Associated Areas, and Administrative Areas</b>			
<b>Color</b>	<b>Name</b>	<b>Associated With</b>	<b>Map Page Number</b>
Orange	Ascension	United Kingdom	9
Yellow	Canary Islands	Spain	9
Yellow	Ceuta	Spain	3
Blue	Kerguelen Islands	France	16
Purple	Madeira Islands	Portugal	3
Blue	Mayotte	France	10
Yellow	Melilla	Spain	3
Blue	Réunion	France	10
Orange	Saint Helena	United Kingdom	9

**AFRICA: Entities, Associated Areas, and Administrative Areas**

<b>Color</b>	<b>Name</b>	<b>Associated With</b>	<b>Map Page Number</b>
Orange	Tristan Da Cunha	United Kingdom	15
Pink	Western Sahara	Morocco	9

**ASIA**

<b>Color</b>	<b>Name</b>	<b>Capital</b>	<b>Map Page Number</b>
Purple	Afghanistan	Algiers	4, 5
Light Green	Bahrain	Manama	10
Green	Bangladesh	Dhaka	11
Purple	Bhutan	Thimphu	11
Yellow	Brunei	Bandar Seri Begawan	11
Light Green	Cambodia	Phnom Penh	11
Pink	China	Beijing	5, 11
Pink	Gaza Strip	N/A	4
Light Green	India	New Delhi	5, 11
Orange	Indonesia	Jakarta	11, 12
Red	Iran	Tehran	4, 10, 11
Pink	Iraq	Baghdad	4, 10
Red	Israel	Jerusalem	4, 10
Green	Japan	Tokyo	6, 12
Green	Jordan	Amman	4, 10
Orange	Kazakhstan	Astana	4, 5
Yellow	Kuwait	Kuwait City	4, 10
Green	Kyrgyzstan	Bishkek	5
Purple	Laos	Vientiane	11
Light Green	Lebanon	Beirut	4
Blue	Malaysia	Kuala Lumpur	11, 12
Green	Maldives	Male	11
Blue	Mongolia	Ulaanbaatar	5
Yellow	Myanmar	Naypyidaw	11
Red	Nepal	Kathmandu	5, 11
Purple	North Korea	Pyongyang	5
Purple	Oman	Muscat	10
Orange	Pakistan	Islamabad	5, 10, 11
Yellow	Philippines	Manila	12
Orange	Qatar	Doha	10
Yellow	Russia	Moscow	2, 4, 5, 6
Blue	Saudi Arabia	Riyadh	4, 10
Light Green	Singapore	Singapore	11
Orange	South Korea	Seoul	5
Red	Sri Lanka	Colombo	11
Orange	Syria	Damascus	4

**ASIA**

<b>Color</b>	<b>Name</b>	<b>Capital</b>	<b>Map Page Number</b>
Pink	Taiwan	Taipei	11
Red	Tajikistan	Dushanbe	5
Green	Thailand	Bangkok	11
Green	Timor-Leste	Dili	12
Blue	Turkey (TURK.)	Ankara	4
Light Green	Turkmenistan	Ashgabat	4, 5
Green	United Arab Emirates	Abu Dhabi	10
Blue	Uzbekistan	Tashkent	4, 5
Red	Vietnam	Hanoi	11
Pink	West Bank	N/A	4
Yellow	Yemen	Sanaa	10

**ASIA: Entities, Associated Areas, and Administrative Areas**

<b>Color</b>	<b>Name</b>	<b>Associated With</b>	<b>Map Page Number</b>
Orange	Chagos Archipelago	United Kingdom	11
Red	Hong Kong	China	11
Red	Macao	China	11

**AUSTRALIA AND OCEANIA**

<b>Color</b>	<b>Name</b>	<b>Capital</b>	<b>Map Page Number</b>
Purple	Australia	Canberra	11, 12, 17, 18
Light Green	Fiji	Suva	7, 12
Green	Kiribati	Tarawa	7, 12
Green	Marshall Islands	Majuro	12
Orange	Micronesia	Palikir	12
Orange	Nauru	Yaren District	12
Pink	New Zealand	Wellington	13, 18
Light Green	Palau	Melekeok	12
Light Green	Papua New Guinea	Port Moresby	12
Purple	Samoa	Apia	7
Yellow	Solomon Islands	Honiara	12
Orange	Tonga	Nuku'alofa	7
Purple	Tuvalu	Funafuti	12
Red	Vanuatu	Port-Vila	12

**AUSTRALIA AND OCEANIA: Entities, Associated Areas, and Administrative Areas**

<b>Color</b>	<b>Name</b>	<b>Associated With</b>	<b>Map Page Number</b>
Red	American Samoa	United States	7
Pink	Cook Islands	New Zealand	7
Blue	French Polynesia	France	7, 13
Red	Guam	United States	12

**AUSTRALIA AND OCEANIA: Entities, Associated Areas, and Administrative Areas**

<b>Color</b>	<b>Name</b>	<b>Associated With</b>	<b>Map Page Number</b>
Blue	New Caledonia	France	12
Pink	Niue	New Zealand	7
Red	Northern Mariana Islands	United States	12
Orange	Pitcairn Island	United Kingdom	7
Pink	Tokelau	New Zealand	7
Blue	Wallis & Futuna	France	7

**EUROPE**

<b>Color</b>	<b>Name</b>	<b>Capital</b>	<b>Map Page Number</b>
Blue	Albania	Tirana	4
Red	Andorra	Andorra La Vella	4
Light Green	Armenia	Yerevan	4
Yellow	Austria	Vienna	4
Green	Azerbaijan	Baku	4
Blue	Belarus	Minsk	4
Yellow	Belgium	Brussels	4
Yellow	Bosnia & Herzegovina	Sarajevo	4
Pink	Bulgaria	Sofia	4
Light Green	Croatia	Zagreb	4
Green	Cyprus	Nicosia	4
Pink	Czech Republic	Prague	4
Green	Denmark	Copenhagen	4
Orange	Estonia	Tallinn	4
Blue	Finland	Helsinki	4
Blue	France (FR.)	Paris	3, 4
Purple	Georgia	Tbilisi	4
Purple	Germany	Berlin	4
Green	Greece	Athens	4
Blue	Hungary	Budapest	4
Blue	Iceland	Reykjavík	3
Light Green	Ireland	Dublin	3
Red	Italy	Rome	4
Red	Kosovo	Pristina	4
Light Green	Latvia	Rīga	4
Orange	Liechtenstein	Vaduz	4
Pink	Lithuania	Vilnius	4
Red	Luxembourg	Luxembourg	4
Purple	Macedonia	Skopje	4
Yellow	Malta	Valletta	4
Orange	Moldova	Chişinău	4
Yellow	Monaco	Monaco	4

**EUROPE**

<b>Color</b>	<b>Name</b>	<b>Capital</b>	<b>Map Page Number</b>
Blue	Montenegro	Podgorica	4
Light Green	Netherlands (NETH.)	Amsterdam	4
Light Green	Norway	Oslo	4
Green	Poland	Warsaw	4
Purple	Portugal	Lisbon	3
Light Green	Romania	Bucharest	4
Light Green	San Marino	San Marino	4
Orange	Serbia	Belgrade	4
Orange	Slovakia	Bratislava	4
Purple	Slovenia	Ljubljana	4
Yellow	Spain	Madrid	3, 4
Red	Sweden	Stockholm	4
Light Green	Switzerland	Bern	4
Red	Ukraine	Kyiv	4
Orange	United Kingdom (U.K.)	London	3, 4
Green	Vatican City	N/A	4

**EUROPE: Entities, Associated Areas, and Administrative Area**

<b>Color</b>	<b>Name</b>	<b>Associated With</b>	<b>Map Page Number</b>
Purple	Azores	Portugal	3
Blue	Northern Cyprus (N. Cyprus)	Turkey	4
Green	Faeroe Islands	Denmark	3
Orange	Gibraltar	United Kingdom	3
Light Green	Svalbard	Norway	4

**NORTH AMERICA**

<b>Color</b>	<b>Name</b>	<b>Capital</b>	<b>Map Page Number</b>
Pink	Antigua and Barbuda	Saint John's	8
Yellow	Bahamas, The	Nassau	8
Green	Barbados	Bridgetown	8
Blue	Belize	Belmopan	8
Purple	Canada	Ottawa	2, 3
Blue	Costa Rica	San José	8
Light Green	Cuba	Havana	8
Yellow	Dominica	Roseau	8
Blue	Dominican Republic	Santo Domingo	8
Light Green	El Salvador	San Salvador	8
Yellow	Grenada	Saint George's	8
Orange	Guatemala	Guatemala City	8
Pink	Haiti	Port-au-Prince	8
Purple	Honduras	Tegucigalpa	8

**NORTH AMERICA**

<b>Color</b>	<b>Name</b>	<b>Capital</b>	<b>Map Page Number</b>
Green	Jamaica	Kingston	8
Yellow	Mexico	Mexico City	2, 8
Green	Nicaragua	Managua	8
Red	Panama	Panama City	8
Purple	Saint Kitts & Nevis	Basseterre	8
Light Green	Saint Lucia	Castries	8
Orange	Saint Vincent & Grenadines	Kingstown	8
Purple	Trinidad & Tobago	Port of Spain	8
Red	United States	Washington D.C.	1, 2, 3, 6, 7, 8

**NORTH AMERICA: Entities, Associated Areas, and Administrative Areas**

<b>Color</b>	<b>Name</b>	<b>Associated With</b>	<b>Map Page Number</b>
Light Green	Aruba	Netherlands	8
Orange	Bermuda	United Kingdom	2
Light Green	Bonaire	Netherlands	8
Orange	British Virgin Islands (Is.)	United Kingdom	8
Orange	Cayman Islands	United Kingdom	8
Light Green	Curaçao	Netherlands	8
Green	Greenland	Denmark	3
Blue	Guadeloupe	France	8
Blue	Martinique	France	8
Orange	Montserrat	United Kingdom	8
Red	Puerto Rico	United States	8
Blue	Saint Martin	France	8
Blue	Saint Pierre & Miquelon	France	3
Light Green	Sint Maarten	Netherlands	8
Orange	Turks & Caicos Islands	United Kingdom	8
Red	Virgin Islands	United States	8

**SOUTH AMERICA**

<b>Color</b>	<b>Name</b>	<b>Capital</b>	<b>Map Page Number</b>
Light Green	Argentina	Buenos Aires	8, 9, 14, 15
Blue	Bolivia	La Paz	8, 9
Orange	Brazil	Brasília	8, 9, 15
Red	Chile	Santiago	8, 14, 15
Yellow	Colombia	Bogotá	8
Light Green	Ecuador	Quito	8
Red	Guyana	Hagåtña	8, 9
Yellow	Paraguay	Asunción	8, 9
Green	Peru	Lima	8
Green	Suriname	Paramaribo	9

**SOUTH AMERICA**

<b>Color</b>	<b>Name</b>	<b>Capital</b>	<b>Map Page Number</b>
Purple	Uruguay	Montevideo	15
Pink	Venezuela	Caracas	8

**SOUTH AMERICA: Entities, Associated Areas, and Administrative Areas**

<b>Color</b>	<b>Name</b>	<b>Associated With</b>	<b>Map Page Number</b>
Orange	Falkland Islands	United Kingdom	15
Blue	French Guiana	France	9
Orange	South Georgia	United Kingdom	15

# A Word about Geography

Though most of us recognize the common designation of “country” to describe an area or region, the world is made up many diverse entities. In addition to countries, there are special areas that include entities such as territories, special administrative regions, etc. These special areas are generally linked with a country in some way. On the map, they are indicated by a) both upper and lower case lettering and b) country affiliations appearing in parentheses. In the index, these country affiliations appear in the “Associated With” column. See Faeroe Islands, Hong Kong, etc.

Please note that these linkages do not indicate governmental structure, sovereignty, etc., and are not meant to be a formal recognition or opinion of any political structure/issue. Users will also note that while certain types of special areas are generally linked, the majority of semi-autonomous or administrative regions (especially those occurring within the main land mass of a country itself) are not labeled separately in the world map.

## Other notes:

The list does generally not include uninhabited islands like the Antipodes<sup>1</sup> or uninhabited geologic features such as Ball’s Pyramid<sup>2</sup>. Large uninhabited islands such as Kerguelen are included solely based on size.

Northern Ireland, Scotland, Wales, and England comprise the United Kingdom<sup>3</sup> and are all labeled as United Kingdom on the map.

Some islands that are well-known in some cultures are not autonomous regions and are located fairly closely to their affiliated country. These islands (e.g. Easter Island, Galapagos<sup>4</sup>) are thus only given the country designation (Chile, Ecuador)

Groups or chains of islands that are claimed by multiple countries, such as the Spratley Islands (claimed by China, Japan, Vietnam, Malaysia, Philippines, Taiwan<sup>5</sup>) or the Line Islands (claimed by the U.S. and Kiribati<sup>6</sup>) are not assigned a color and may be painted any color that is not already in use on your map. These are not included on the index.

Lakes will be unlabeled, so if no country label exists, it’s a lake and you can paint it ocean blue.

Generally, islands that are close to their “home” country are not labeled separately.

Please note that the words territory, special area, autonomous regions can be interpreted differently by different sources. We recommend consulting two or more of the sources in the bibliography to clarify any conflicting information.

Please see the following bibliography for the sources consulted during the creation of the world entities color scheme and index.



# World Map Bibliography

## World Entities Index

All named entities, area-country associations, and capitals were verified using a combination of the sources listed below. Information should be considered up-to-date as of July 2012.

Central Intelligence Agency. *The World Factbook*,  
<https://www.cia.gov/library/publications/the-world-factbook/> (accessed April – July, 2012).

Cohen, Saul B., ed. 2008. *The Columbia Gazetteer of the World*. 3 vols. 2<sup>nd</sup> ed. New York: Columbia University Press.

Encyclopædia Britannica, Inc. *The Encyclopædia Britannica*, <http://www.britannica.com> [accessed April – July, 2012].

United Nations Statistics Division. 2011. *Countries or Areas, Codes and Abbreviations*.  
<http://unstats.un.org/unsd/methods/m49/m49alpha.htm> [accessed April – May, 2012].

United Nations. 2006. *Member States of the United Nations*.  
<http://www.un.org/en/members/index.shtml> [accessed April – May, 2012].

*The World Almanac and Book of Facts 2012*. 2012. New York: World Almanac Books.

# World Map Selected Readings

## Countries and Cultures

The following is a list of useful and reliable resources for information regarding countries and the culture of their peoples. Some resources are available for free online while some can be found only in a library or online via a library subscription. For the non-free resources, we have selected those that are widely held by libraries. Consider this list a starting point for your ethnological readings.

Country Profiles. 2012. [http://news.bbc.co.uk/2/hi/country\\_profiles/default.stm?AX42843](http://news.bbc.co.uk/2/hi/country_profiles/default.stm?AX42843)

This free online resource from the BBC provides brief overviews of countries with basic facts, information about current leaders, and a chronology of the major events in each country's history. *Country Profiles* also describes current media outlets and the state of both independent and country-run media for each particular nation.

Central Intelligence Agency. *The World Factbook*. 2012. Washington, D.C.: Central Intelligence Agency. <https://www.cia.gov/library/publications/the-world-factbook/>

*The World Factbook* is one of the best-known resources for information on countries and other world entities. Profiles are broken into broad sections including introduction/overview, geography, people, government, economy, communications, transportation, and military. Most information is reported in tabular format and is quite current. *The World Factbook* is particularly useful for finding information about entities such as territories and special administrative areas.

Ember, Melvin, and Carol R. Ember. 2001. *Countries and Their Cultures*. 4 vols. New York: Macmillan Reference USA.

This multi-volume reference work provides an encyclopedic look at the cultures that exist within countries of the world. This people-centric focus is useful for those interested in learning about a country's ethnic relations, social class and structure, education, religion, and healthcare.

Encyclopædia Britannica, Inc. 2010. *The Encyclopædia Britannica*. 32 vols. Chicago: Encyclopædia Britannica. <http://www.britannica.com>

As one of the world's premier sources of information, *Encyclopædia Britannica (EB)* provides enormous amounts of material on countries and other world entities, as well as on world cultures. History, geography, culture, environment, and economics are just a few of the topics each entry includes. *EB* also includes multi-media and useful web links to reliable online resources. Consider using the World Data Analysis section of *EB* to look at country statistics and to create comparisons. Both historical and current statistics are available.

*Europa: Regional Surveys of the World*. Dates vary. Routledge: New York.

This multi-volume series is organized by geographic region. Coverage for each country includes an excellent historic overview as well as more detailed information about current economic development, social policy, etc. The Europa surveys also include in-depth statistical information for

each country. A directory of important organizations, associations, and agencies is included for each country. Updates are issued frequently.

Gall, Timothy L. 1998. *Worldmark Encyclopedia of Cultures and Daily Life*. 4 vols. Detroit: Gale.

Though not recently updated, this multi-volume set includes excellent information regarding the different cultures that exist in the world. Each culture has its own entry that includes an introduction and detailed information about the location of the culture, language, folklore, religion, holidays, rites of passage, interpersonal relations, living conditions, family life, clothing, food, education, cultural heritage, work, sports, entertainment, recreation, and social problems.

United Nations Development Programme. 2011. *Human Development Statistical Annex*.

[http://hdr.undp.org/en/media/HDR\\_2011\\_EN\\_Tables.pdf](http://hdr.undp.org/en/media/HDR_2011_EN_Tables.pdf)

The Statistical Annex is a compilation of statistical tables released by the UN each year that report key aspects of human development. Broad measurement categories include poverty, environmental sustainability, education and health, and population and economy. Use this resource as a statistical snapshot of where a country ranks in development.

United States Department of State. 2012. *Background Notes*. <http://www.state.gov/r/pa/ei/bgn/>

These profiles compiled by the U. S. State Department include overviews of the people, history, government, economy, etc., of a country. Though production ceased in early 2012, archives are available from 1990 to 2012. These serve as a valuable quick introduction to a nation and its people; comparing newer reports to older reports can be useful to see how a nation has changed in the recent past.

The World Almanac and Book of Facts 2012. 2012. New York: World Almanac Books.

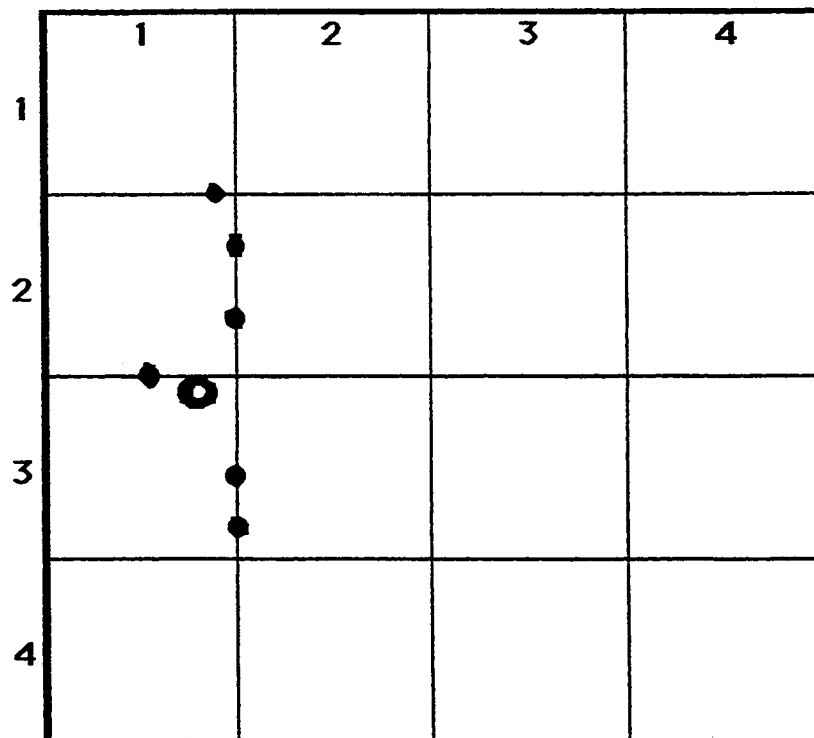
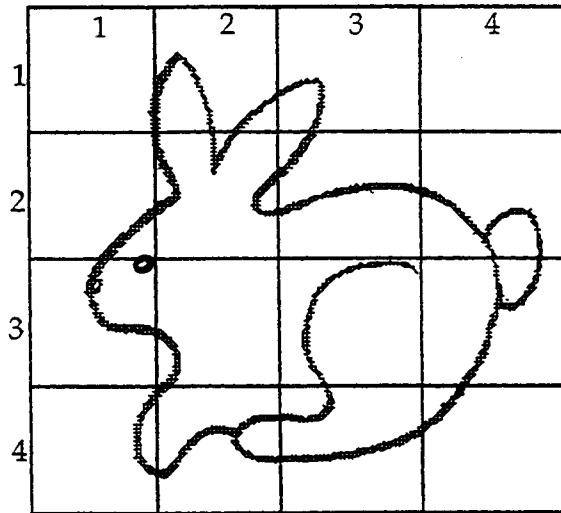
The World Almanac has brief but information-rich entries on all nations of the world. Most information is presented in a simple list format with very little explanatory information or context, excepting the country overview/history that is presented at the end of each entry. Statistical comparisons and rankings appear throughout the rest of the Almanac, and can be found by using the index to browse by subject.

Worldmark Encyclopedia of the Nations. 2001. 6 vols. 10th ed. Detroit: Gale.

Worldmark Encyclopedis of the Nations is another slightly dated but still wonderful multi-volume set that manages to provide a good overview while still including a lot of data. Like many other great encyclopedic sets, this one covers the basics: geography/climate, people and culture, history, government, and the economy. Some special entities have their own entries, such as the French American Dependencies or Netherlands American Dependencies. These are much briefer than entries for countries but still provide useful and interesting information.

# Practice Exercise #1: Enlarging Drawings by Grid

**Directions:** Make a larger copy of the rabbit in Grid #1 by drawing it in Grid #2. **Hint:** In order to draw a bigger rabbit in the grid on the right, you need to look at where the lines of the rabbit's body cross the grid squares in the smaller drawing. You can make dots on the large grid where these lines should cross the squares. Then connect the dots and look how your rabbit grew!

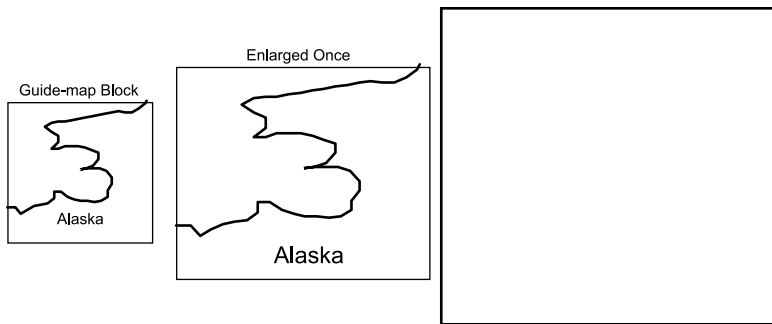


# Practice Exercise #2: Drawing Maps by Grid

**Directions:** Read the suggestions below; then practice your map drawing skills using the grid.

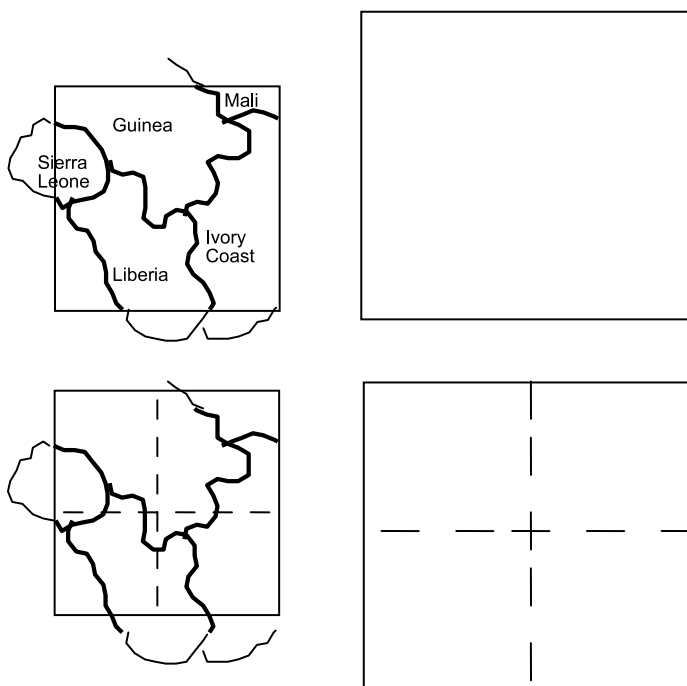
## Enlarging Your Drawing

First, look at the guide-map block. Do you see how the form in the “enlarged once” block is larger but still has the same shape and proportions? When you draw, make sure the country border or coast lines cross the large grid block in proportionately the same place as in the guide map block. Now, you try it. In less than a minute, you’ve drawn over a thousand miles of North Alaskan coastline.



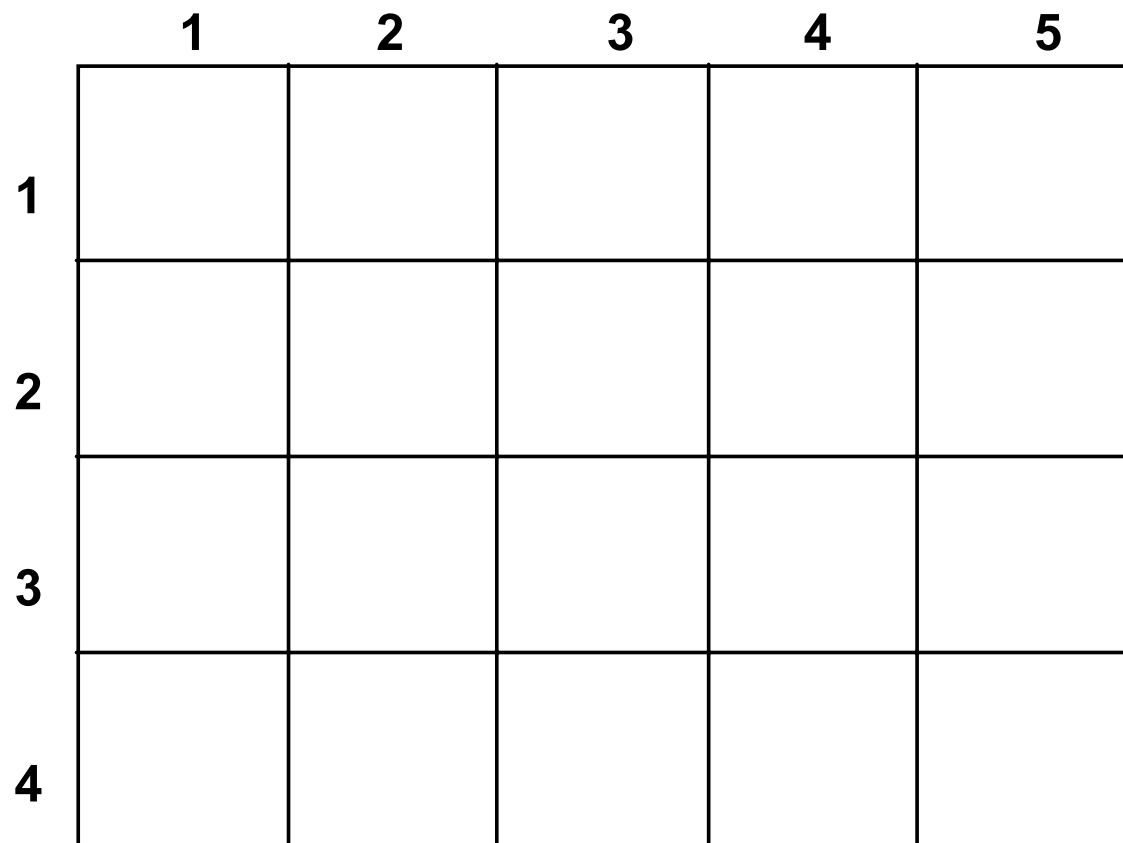
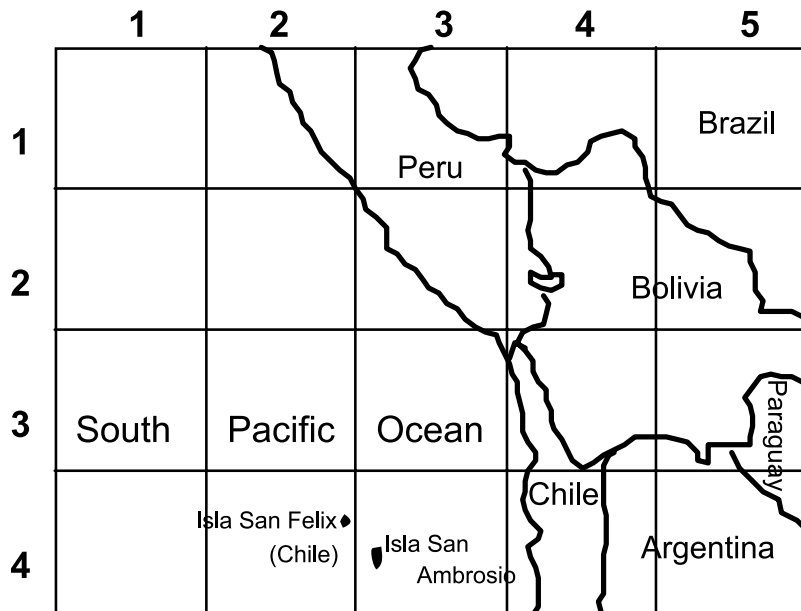
## Sub-dividing Difficult Blocks

Drawing difficult map blocks will be four times as easy if you divide the guide map block into four smaller blocks. Be sure to sub-divide the same block on the large map grid as well.



## Putting It All Together

As you draw this section of South America, notice where the borders cross the grid blocks. Remember to draw one block at a time.





# Appendix



# How to Draw Your Grid on Walls

These instructions are for mapmakers who are drawing their maps on unsquared walls or irregular pieces of hanging canvas. Don't be put off by the number of steps. They simply tell you how to make a grid box with perpendicular sides using a simple plumb line.

## Materials:

- yardstick/meter stick(s)
- long straightedge
- pencils
- simple plumb line

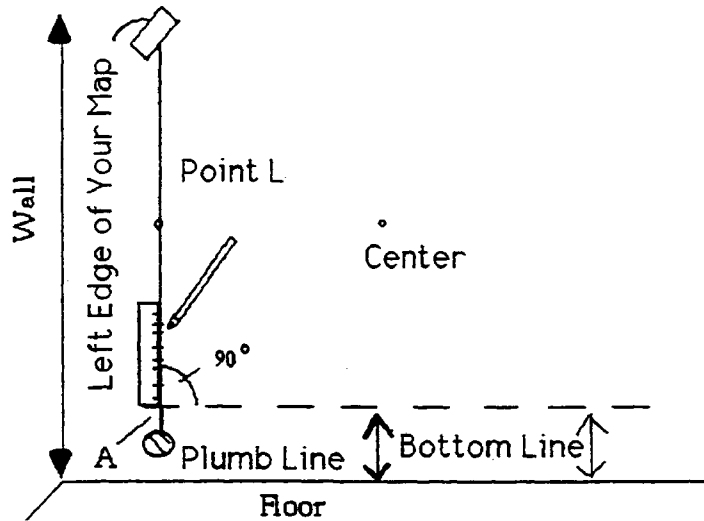
## To make:

Attach a long string to a small flat weight, such as a washer or rock. The string should be longer than the height of your map. The weight should be about the size and shape of a half-dollar. It should also be smooth and flat on one side.

## Steps:

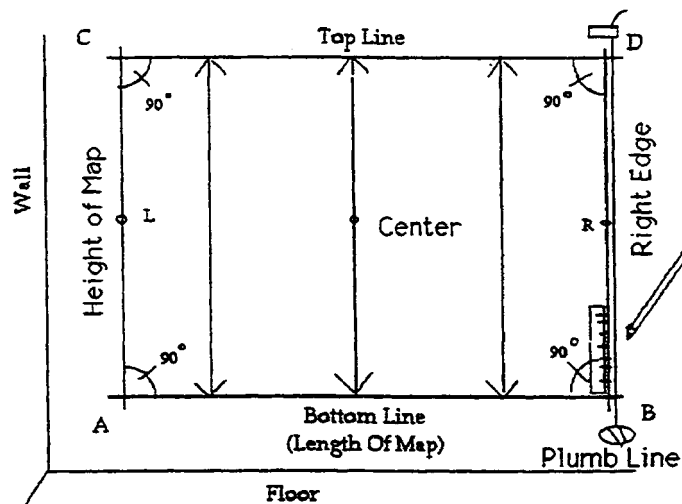
1. Roughly center your map on your background surface. You can find the center point of your map by drawing a big X corner-to-corner across an area of background that is roughly the same size as your map. The center of the X is the center point of your map's grid.
2. Draw the left edge of your grid box:
  - a. From your center point, measure left  $\frac{1}{2}$  the length of your map. Let this be Point L.
  - b. Hang your plumb line through Point L. Tape the top of the string to the wall so that the plumb line crosses directly over Point L. Your plumb line should lie directly against the wall or cloth. When it is still, make marks on the background surface every foot (half-meter) or so down along the string.
  - c. Connect these marks with a pencil and straightedge to make the left edge of your grid.
3. Draw the bottom of your grid box:
  - a. Decide where you want the bottom of your map to be. Measure up from the floor this distance and make a series of marks the length of your map.
  - b. Connect these marks with a pencil and straightedge to make your bottom line.

Figure 10: Grid Box Left Edge and Bottom Line



4. Draw the right edge of your grid box. Repeat steps 2a-c on the right side of your map. (Let R be the right edge point and B be the point of intersection between the bottom line and the right edge line.)
5. Draw the top of your grid box:
  - a. Mark the height of your map on both the left and right sides of your grid box. Do this by measuring up from Points A and B the same distance. Let the top left point be Point C and the top right point be Point D.
  - b. Draw a line connecting these two top marks (Points C and D). This top line should be parallel with the bottom line. If you don't have a very long straightedge, first make top points.

Figure 11: Grid Box Right Edge and Top line



6. Now that you have your grid box, go to [p. 13](#) and continue the process from there.

# How to Draw Your Grid on Floors, Playgrounds and Other Flat Surfaces

These instructions are for mapmakers who are drawing their maps on an **unsquared** horizontal surface like a part of a floor or a playground. You can also follow these instructions if you are working flat with an irregular piece of canvas.

## Materials:

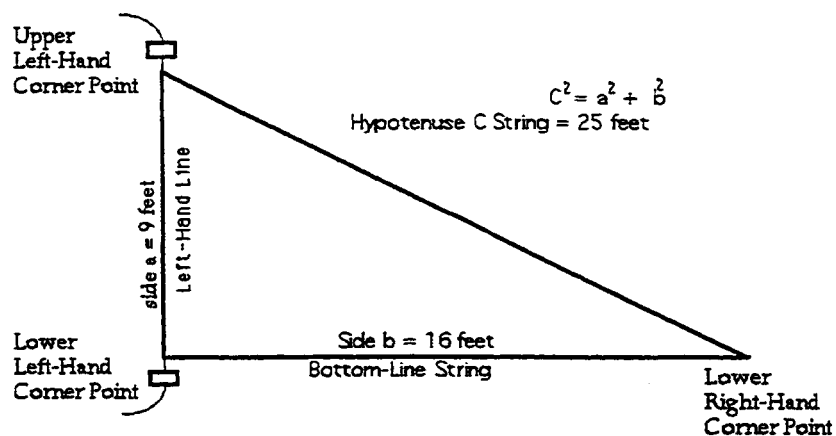
- pencil or chalk
- string
- measuring tape or stick
- long straightedge
- carpenter's square (two rulers joined in an L shape)

## Steps:

1. Use the measuring tape and chalk to draw the **bottom line** of the grid.
2. Draw the **left line** of the grid. The trick here is to make sure that the left line is perpendicular to the right line. To do this, take advantage of the Pythagorean Theorem:  $a^2 + b^2 = c^2$ . For example,  $3^2 + 4^2 = 5^2$  because  $9 + 16 = 25$ .
  - a. First, cut a string 16 feet long and lay it along the bottom line.
  - b. Cut another string 9 feet long and lay it along the left side of the bottom line.
  - c. Cut the third string 25 feet long. This string is the hypotenuse, so lay it in position. While keeping the bottom line string along the bottom line, move just the left line string until all the points match up. This produces a triangle where the bottom line is perpendicular to the left line. Draw the left line along the string.

**Note:** When laying the string for steps 2a–c, do not pull the string so tight that it stretches.
3. To make the rest of the grid, measure up from the bottom line and over from the left line.

Figure 12



# How to Make a Tissue Paper World Map

Colored tissue paper makes beautiful, textured maps. Glued to lightweight paper, these maps have an illuminated quality when taped to windows. They also involve less clean-up than painted maps.

## Materials:

- copies of map section sheets, p. 48–65
- “butcher block” paper or pre-gridded flip-chart paper (available through business supply stores)
- tissue paper in a variety of colors
- glue sticks
- black markers

## Steps:

To make a tissue paper map, draw your grid on lightweight sheets of paper taped together. Some mapmakers have simplified the process by purchasing large sheets of pre-gridded paper. Hand draw your map information block-by-block as usual. (Note: If necessary, you can cut your paper map into workable sections during the project and reassemble it at the end.)

## When you are ready to add color.

1. Select tissue paper appropriate to the countries you are coloring. Tear the paper into strips or patches.
2. Cover your targeted area with glue.
3. Affix the tissue paper strips so that they cover the targeted area in a collage-like way.
4. Don't worry about rough borders between colors. Once the paper is dry, outline the borders with a wide black marker, which will cover any gaps.
5. Label your map; see p. 20.

# Bibliography

The following list of publications is provided for your information only. Inclusion or exclusion in no way reflects endorsement or lack of endorsement on the part of Peace Corps or the U.S. Government.

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*Cultures of the World*, 6 volumes. North Bellmore, New York: Marshall Cavendish, 1992. (grades 5–10)

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*People and Places Series*, 24 books. Morristown, New Jersey: Silver Burdett, 1989. (grades 4–8)

Taylor, Barbara. *Be Your Own Map Expert*. New York: Sterling, 1994.

Taylor, Barbara. *Maps and Mapping: Geography Facts and Experiments*. New York: Kingfisher LKC, 1993.

Williams, Brian. *Countries of the World: A Visual Factfinder*. New York: Kingfisher LKC, 1993. (grade 5 and up)

# Additional Information and Resources

## COMMUNITY PRIDE

Community Development Volunteer Kyle Greufe (2009-2012) shared a World Map Project with youth in Costa Rica. Click on the header for videos, games, the World Map Project Manual and more.

## LINK TO INTERACTIVE SOURCES:

\\PCFS\Agency Folders\OPATS\KEPD-ICE\Materials\_Development\World Map Project updates 2011-1013\Interactive Resources

## READY TO BEGIN?

Check out these time-lapse instructional videos showing projects from Panama, Paraguay, and El Salvador. The latter includes overlaid easy-to-follow instructions.

<http://www.youtube.com/watch?v=xE75LIInqbiM>

<http://www.youtube.com/watch?v=yybEn8jWxaw>

<http://www.youtube.com/watch?v=HXTEJNgbMqw>

<http://www.youtube.com/watch?v=4fCqwad1Kc0>

## National Geographic interactive map:

[http://education.nationalgeographic.com/education/mapping/interactive-map/?ar\\_a=1](http://education.nationalgeographic.com/education/mapping/interactive-map/?ar_a=1)

## The Peace Corps interviews World Map Project founder Barbara Jo White:

<http://www.youtube.com/watch?v=xE75LIInqbiM>

## Go here to check World Map Project founder Barbara Jo White's website:

<http://theworldmapproject.com/>

## Go here to see the World Map Project Manual:

[S:\CEN\Knowledge\_Exchange\_Professional\_Development\WEBSITE MATERIAL\World Map Project 2013]

## Go here for a World Map Project grid with labels:

[S:\CEN\Knowledge\_Exchange\_Professional\_Development\WEBSITE MATERIAL\World Map Project 2013]

## World Wise Schools Interactive Game(s):

<http://wws.peacecorps.gov/wws/educators/enrichment/peacecorpschallenge/>

<http://www.peacecorps.gov/kids/>

**Peace Corps World Map resources/background:**

<http://www.peacecorps.gov/resources/returned/thirdgoal/getinvolved/map/>

<http://www.peacecorps.gov/about/fiftieth/folklife/white/>

<http://www.peacecorps.gov/resources/media/medstories/1536/>

<http://www.theworldmapproject.com/>

**The World Map Project celebrated its 24th year in 2012:**

<http://iipdigital.usembassy.gov/st/english/article/2012/12/20121226140393.html#ixzz2GHTjVss4>

## **Overseas Programming and Training Support**

The Peace Corps Office of Overseas Programming and Training Support (OPATS) develops technical resources to benefit Volunteers, their co-workers, and the larger development community.

This publication was produced by OPATS and is made available through its Knowledge & Learning unit (KLU), formerly known as Information Collection and Exchange (ICE). Volunteers are encouraged to submit original material to [KLU@peacecorps.gov](mailto:KLU@peacecorps.gov). Such material may be utilized in future training material, becoming part of the Peace Corps' larger contribution to development.

Peace Corps  
Office of Overseas Programming and Training Support  
**Knowledge & Learning**  
1111 20th Street, NW, Sixth Floor  
Washington, DC 20526

[KLU@peacecorps.gov](mailto:KLU@peacecorps.gov)

Abridged Dewey Decimal Classification (DDC) Number: 526