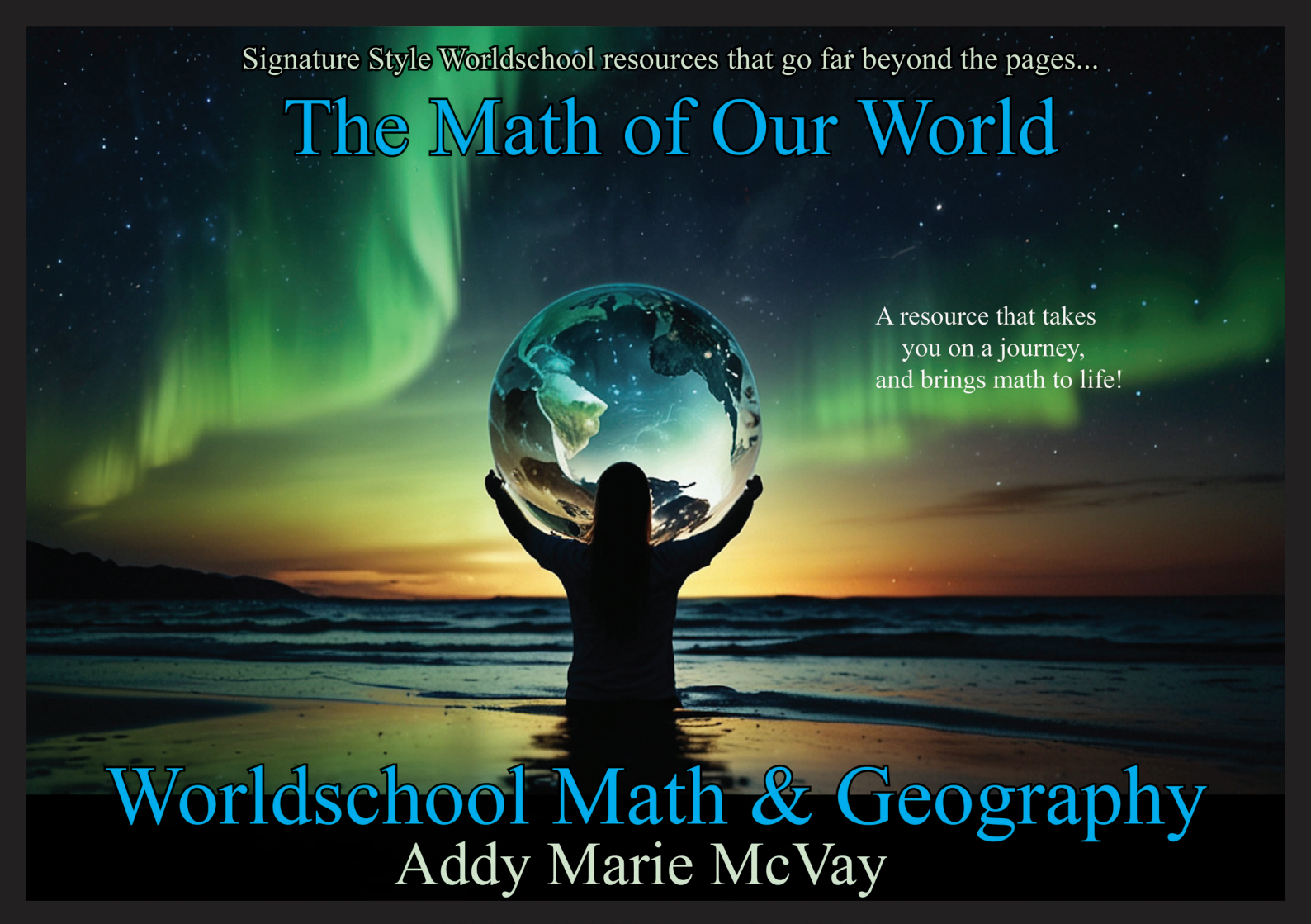


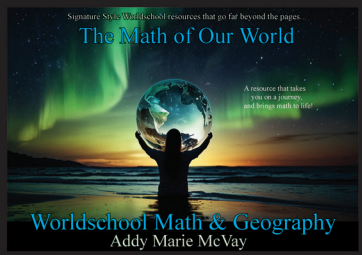
Signature Style Worldschoool resources that go far beyond the pages...

The Math of Our World

A resource that takes
you on a journey,
and brings math to life!



Worldschool Math & Geography
Addy Marie McVay



Instructions: *Print entire document “double sided, size A5 in landscape, or A4” to follow T&Cs.
Document designed in A5 landscape*

Pages, 1 and 3, 2 options for cover / back of cover pages. Pages 6 - 19, Math Is A Powerful Tool.
Page 20 - 22, Sizing you Up. Pages 26 - 30, Challenge. Page 31, Games. Page 32, Yearly Round Up.

Title: The Math of Our World

Subtitle: Worldschool Math & Geography

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Author: Addy Marie McVay, [Adrienne M McVay] (Various roles) Writer, Concept by, Designed by, Compiled by,

Editor: Kleigh Klay McVay

Release: 13.07.2024

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Worldschool Math & Geography, is the resource that takes you on a journey, and brings math to life.

As you require, print and stack pages as you learn and dive deep into global mathematics, to see where numbers can take you. Scrapbook and Journal pages included, for your personal journey. Enjoy!

Tribe Motto: Community Is Ours, Adventure Is Yours, Endeavor For Life!

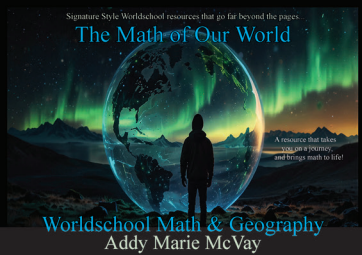
<https://www.WorldschoolTribe.com>

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The Math of Our World: Worldschool Tribe Math & Geography

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The Math of Our World: Exploring the Numbers Around Us



Imagine you're on a plane, flying over the vast expanse of the Earth. Below you, countries stretch out and rivers travel through landscapes like snakes through the grass. This isn't just a beautiful sight of natural entanglement, it's a world of math. In fact, simply effective numbers, waiting to be explored that change a scenery into a measurable journey is, "Math of the World". A fascinating way to understand our planet and the incredible things happening, are at our fingertips to explore. So...let's get into it!

Beginning with you, write about a journey where you travelled a long distance to somewhere new.

Do you know how far that was and do you remember how long it took to get there?

Take yourself back to that moment and journal what you can remember, then research the (math) for the distance you travelled if you don't already know. Journal, what were they?

Math is a Powerful Tool:



As you explore the Math of the World, you'll discover that numbers aren't just abstract concepts. They are the building blocks of our understanding, helping us interpret information, to solve problems, and make informed travel decisions.

So, as you go out there and venture, open your mind, and see the world through the lens of math. You might be surprised at what you find!

Journal:

Math is a Powerful Tool:



Our world is filled with numbers. From the basic bead counters and shapes learned when young, to the distances between your home and your friend’s house, to the height of the tallest building in your city, to the number of people in your country - these are all examples of math at work. But math can be more than just numbers on a page. It can be a tool to explore the world around us, helping us understand things like:

How big is the Earth? or How far is it to our friend’s home?

We can use math to measure its size, the distances between countries, and the length of rivers. To the population in one town in the northern hemisphere versus another in the southern hemisphere.

Journal: Name some examples of how you use math in real life?

Examples



Free writing: Journal

Math is a Powerful Tool:



How do things move? From bikes to planes, to even the wind and water, things are moving, constantly. Math helps us understand the distances they travel, the speed at which they move and how long it takes to get from one place to another.

As a Worldschooler and Roadschooler, identifying the importance for “Math of the World” paves the way for using math in real terms, from planning day trips to long distance adventures.

How so? Think about a special place you love to go to regularly. What math would help take you there that would be important to know and understand.

“How far is it and how long does it takes to journey there.”

For example, a special journey by car is 10 kilometres (6.2 miles) to our grandparents home and it takes 15 minutes to ride in the car, yet by foot the journey takes an hour. Part of planning a journey, is to know the math!

Activity 1: What Math can you find out about that helps you to travel to your special place by car and foot?

Journal:

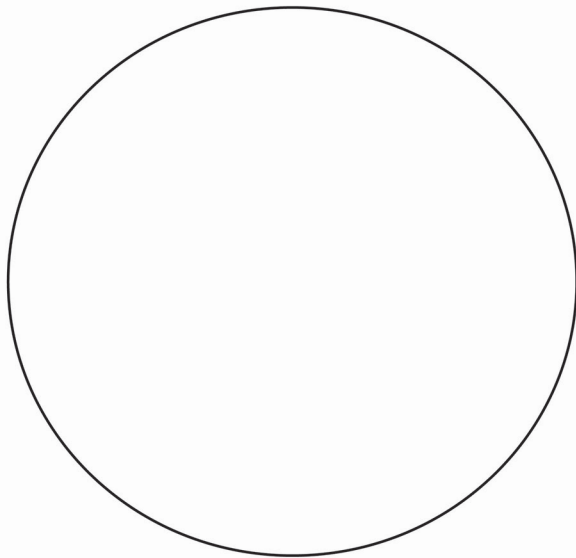
As you explore the “Math of the World”, you’ll discover that numbers aren’t just abstract concepts. They are the building blocks of our understanding, helping us interpret information, solve problems, plan schedules, juggle time frames and make informed travel decisions. So, go out there, open your mind, and see the world through the lens of math. You may be pleasantly surprised at what you find, and how “Math of the World” becomes the birthplace to concreting real-math.

Journal something NEW you discovered about math that arose from your travels.

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Journal Your Journey... 2024 / 25

Travel Scrapbook



Math is a Powerful Tool:



Our planet is a giant sphere, but, how BIG really... is our earth?

Activity 2:
What can you find out about the size of our earth?

Tip: use words like diameter and circumference when looking for the math.

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Our planet is a giant sphere, with land masses, oceans, rivers and mountains.

Activity 3:

- a) Name one river that runs into an ocean near you?
- b) Can you find out, how long that river is?
- c) Name one mountain that is the closest to you?
- d) Can you find out how high that mountain is?

Journal: Your findings

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Math is a Powerful Tool:



Our planet is giant, and people live all over the planet.

Activity 4:

What can you find out about, for how many people live on earth?

Tip: We can use math to understand population growth and how people are spread out across the globe.

Journal: Your findings

[illegible]

[illegible]

By understanding the math, we can approach Worldschoooling and Roadschoooling in a logical way and find solutions that allow us to more simply navigate starting points to our final destinations, and possible variables along the way.

and hours). Each are instrumental for getting from A to B, to creating an itinerary.

Sizing you up!



How many Pounds = 1 Kilograms _____

Question 1: In kilograms and pounds, how much do you weigh? _____

Question 2: Would you fit in:

(a) carry on luggage (7kg's) or, (b) under carriage luggage (7+kg's)? _____

Curious Q, weighing a passengers luggage to fly on a plane is important, why?

Sizing up Maps: Learn how to read paper maps and understand map scales.

In a world dominated by digital maps and GPS, the trusty paper map might seem like a relic of the past. Yet, the ability to read a paper map is a valuable skill, offering a deeper understanding of geography, time and real distance. Which provides a sense of independence when navigating your journey. Worldschoolling and Roadschooll becomes tactile with paper maps, and the first step in mastering this skill is understanding map scales.

What is a Map Scale?

A map scale represents the relationship between distances on a map and the corresponding distances in the real world. It tells you how much smaller the map is compared to the actual area it portrays. Think of it like a miniature model of a suburb, town or larger city – every detail is there, but in a shrunk down form. It helps us understand how much the map has been scaled down to, compared to reality. Which in turn helps us get from a to b, and gauge time.

Understanding the Basics:

Scaling is expressed as a representative fraction (RF), a ratio that shows the relationship between map distance and real-world distance. For example, a map with a scale of 1:100,000 means that 1 unit on the map represents 100,000 units in the real world. This could mean 1 centimeter on the map equals to 1 kilometer on the ground (metric), or 1 inch on the map equals to 1 mile on the ground (imperial).

Map scale units will most often be in one of two measurements systems. The map scale may show metric units such as meters or kilometers. The other common measurement system, used particularly in the United States and United Kingdom, the map scale in a British imperial unit and United States customary unit of distance such as feet or miles.

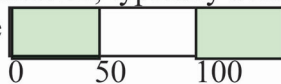
Tip: Go hunting through some maps books, and look around to familiarise yourself.

Types of Map Scales:

Verbal Scale: Uses words to express the relationship of Math and Distance.

Such as; 1 centimeter to 1 kilometer. (for example, 1 cm on the map = 1 km on the earth surface)

Graphic or Bar Scale: This uses a visual representation, typically a line divided into segments representing specific distances on the ground. Example, graphg scale



measured in km or mi.

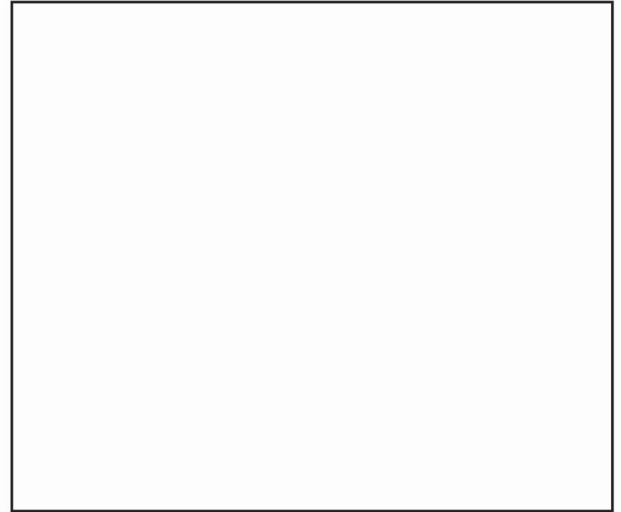
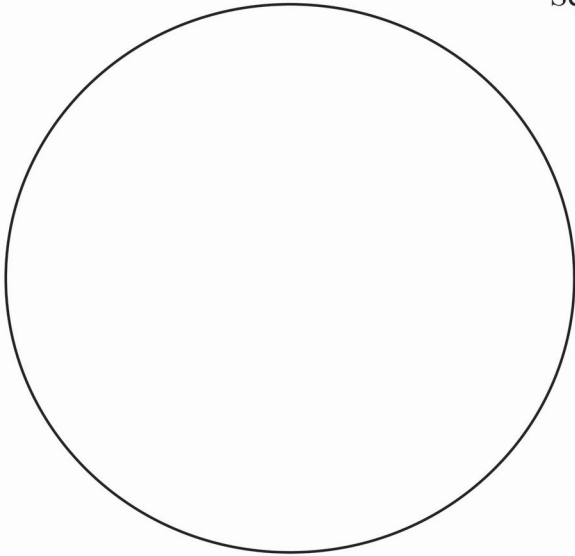
Representative fraction (RF) or natural scale

Representative Fraction (RF): This is the most common and precise way to express scale, as a ratio like 1:100,000.

Link to a Map scale calculator:[https://www.maptools.com/scale_calculator]

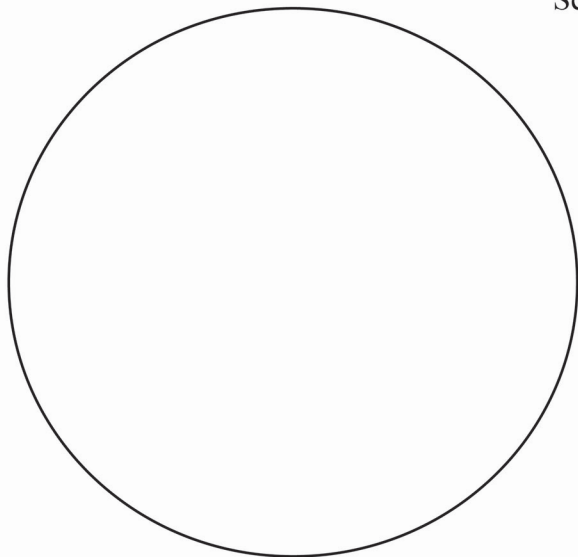
Journal Your Journey... 2024 / 25

Scrapbook



Journal Your Journey... 2024 / 25

Scrapbook

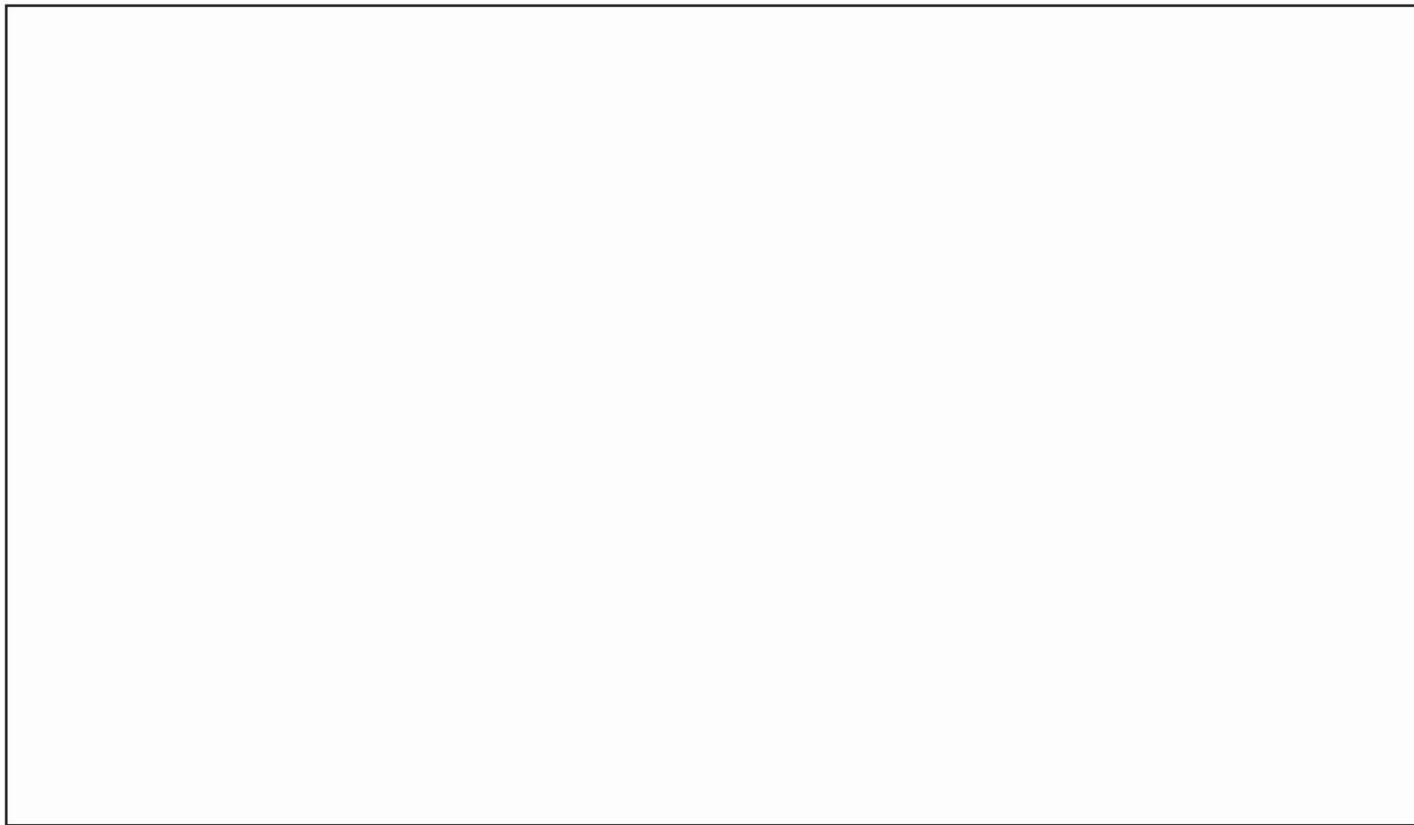


Maps and scales:

Activity 5: Step 1, Below, draw a map from your starting point to your special place you wrote about on page 8.

Step 2, Map the scales using one of the techniques to measure the distance.

Tips: Use your pencil lightly, for ease to erase and have another go...Practise Makes Better, & Better Never Ends!





Travel words: What do these words mean to you?

Step 1. First write what these words mean to you,

Step 2. Then look in a physical dictionary, for the explanation,

Step 3. Compare the meanings to gather a better understanding.

Curious Q, was your understanding for each word, the same as what's in the dictionary?

Depart

Map

Atlas

Diagram

Draft

Projection

Tracing

Terrain

Landmark

Distance

Duration

Altitude

Pace

Itinerary

Journey

Voyage

Expedition

Itinerary

Pace

Arrive



Harder Words: Are you up for the challenge...
Can you find the meanings for the list of words?

2 Part Challenge:

Part 1.

Step 1. Find the meanings for the 20 words,

Cartographer
Topographical
Sojourn
Wanderlust
Transport
Geoscience
Commute
Transit
Navigate
Compass
Bearing
Planetary
Landmark
Destination
Adventure
Explore
Direction
Journey
Prominent
Speed



2 Part Challenge: continued

Step 2. Pick 1 word that grabs your attention,

Step 3. Use that word in a practical way 3 times today!

Curious Q, was that easy... how did you go?
Journal your experience:

Journal Your Journey... 2024 / 25

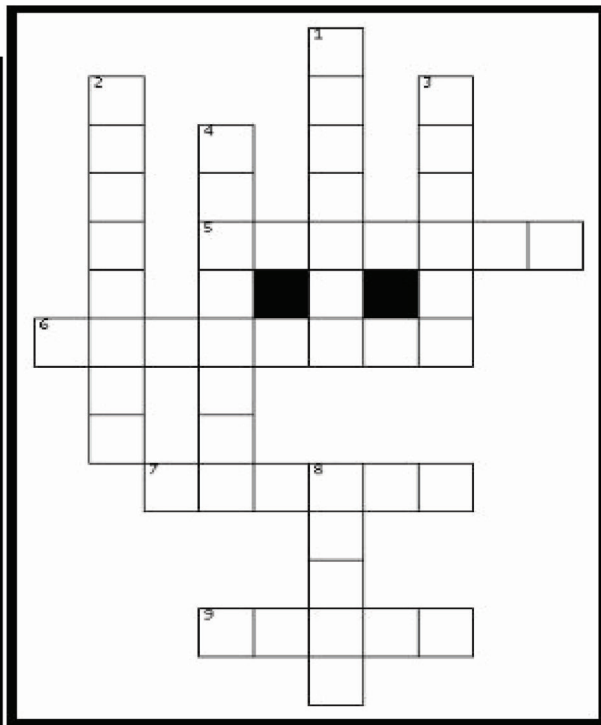
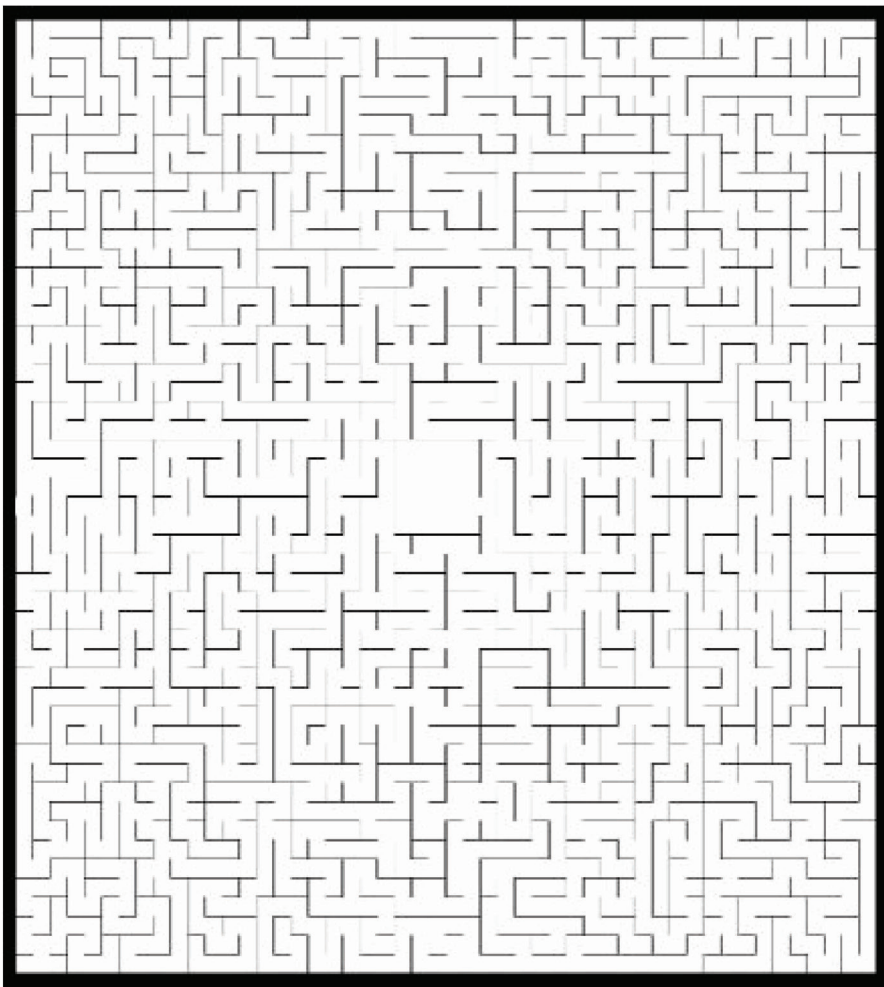


7 Top Tips for Navigating Maps... 2024 / 25

1. Location identification: Accurately identify your current location and surrounding landmarks.
2. Route planning: Chart your own course and choose the best route based on where you want to go.
3. Distance estimation: Gauge distances between locations and plan travel time more effectively.
4. Landform recognition: Identify tricky terrain like sand, mountains, rivers and other geographical features.
5. Understanding scale: Interpret the relationship between real-world distances and map scales.
6. Develop map literacy: Comprehend map symbols and legends to decipher key information.
7. Independent navigation: Where technology fails or is unavailable, you will be better prepared to navigate.

Name 3 more... Add your own 3 Top Tips for knowing how to read maps:

Games: The Answers will fit if correct. Have confidence!



ACROSS

- 5. A action for drawing the edge
- 6. the length from a to b, is what?
- 7. opposite to arrive
- 9. a practise effort

DOWN

- 1. land or earth
- 2. How long it takes to get from a to b, is what?
- 3. The opposite to depart
- 4. Pilots use this word to descibe how how the plane is flying
- 8. A map for all countries

Yearly Round-up: What were your most valued outcomes from this resource?