

OCEANOGRAPHY

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The activities in this book explain elementary concepts in the study of oceanography, including mapping the oceans, characteristics of water, the ocean floor, waves and currents, tides, life in the ocean, and underwater exploration.

General background information, suggested activities, questions for discussion, and answers are included.

Encourage students to keep completed pages in a folder or notebook for further reference and review.

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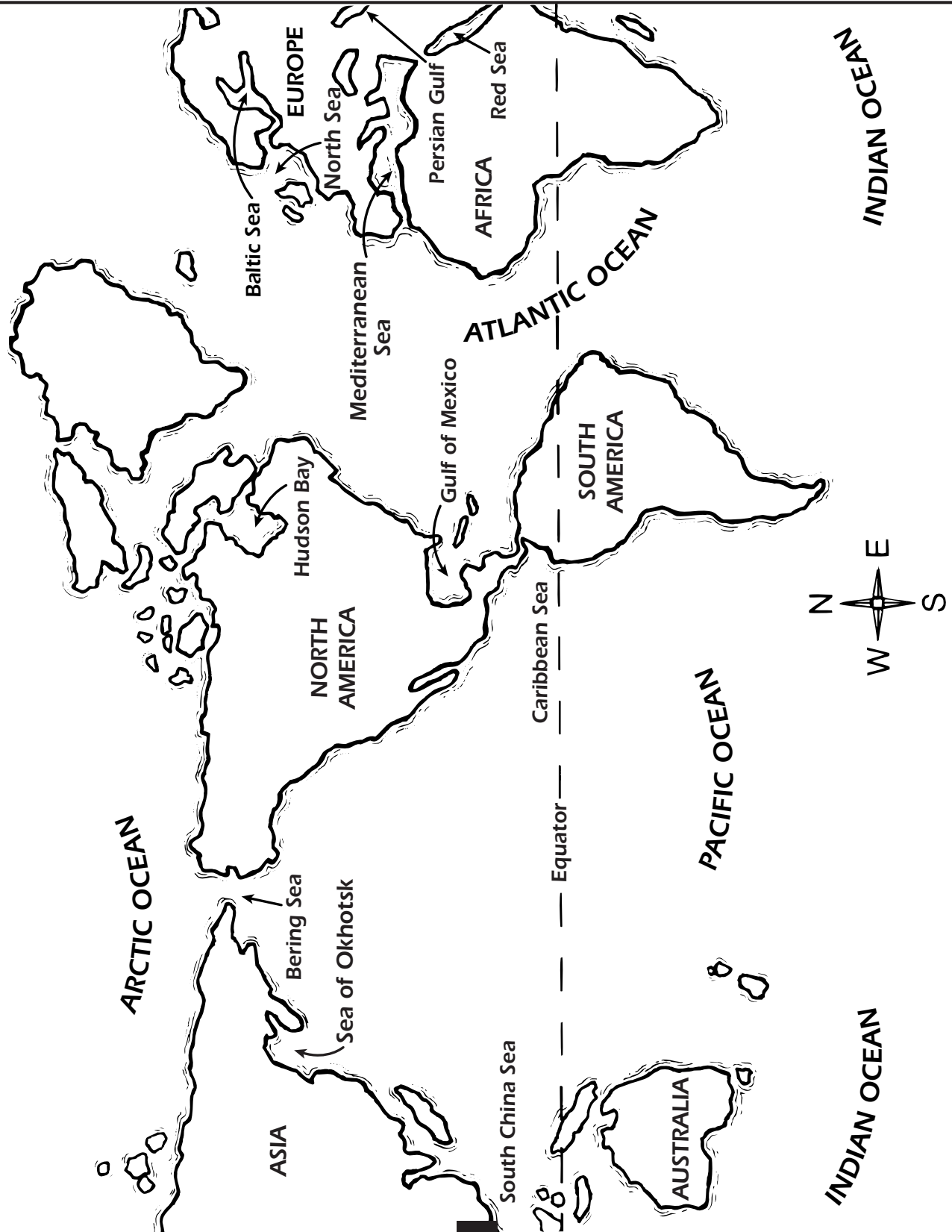
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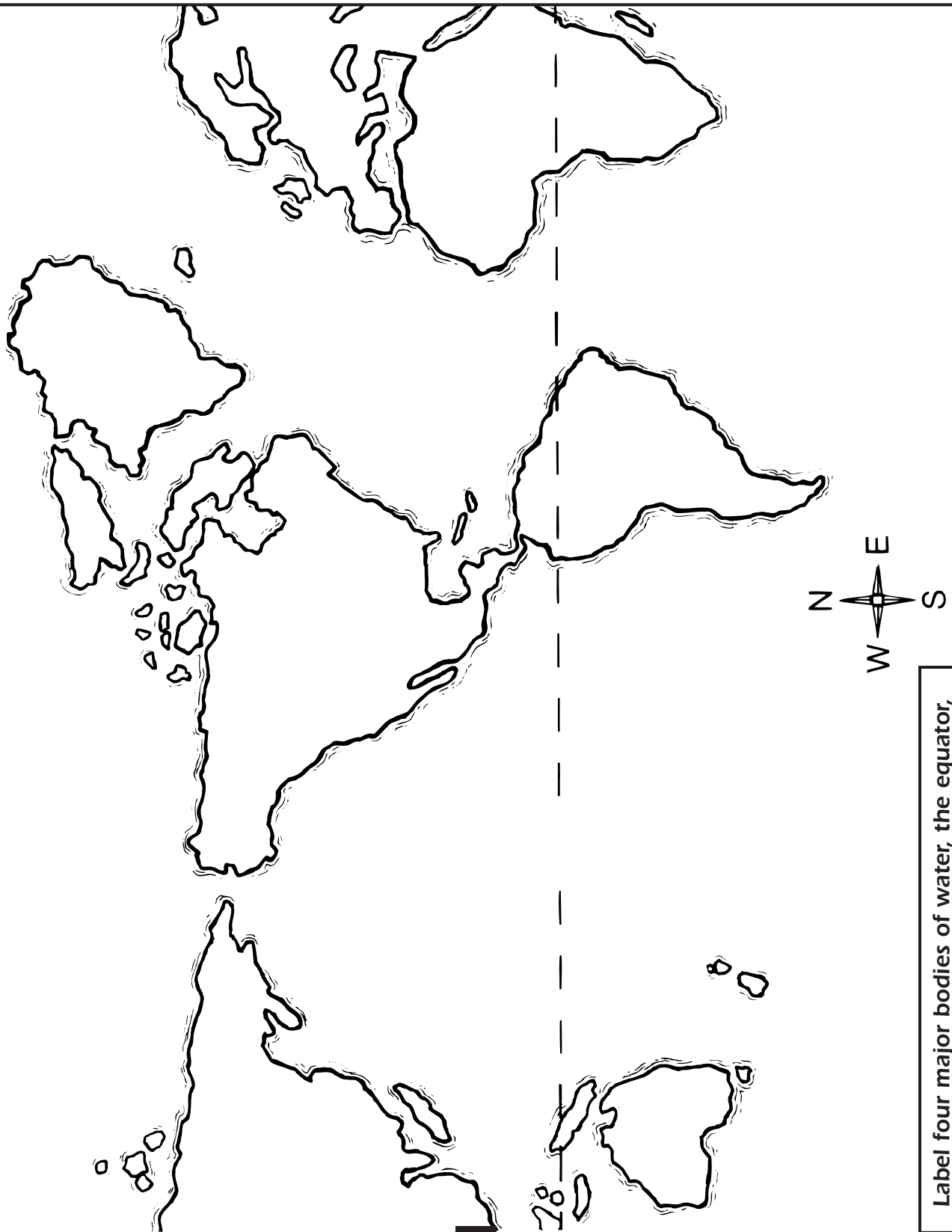
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OCEANS AND SEAS OF THE WORLD



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Label four major bodies of water, the equator, and the continents shown on this map.

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THE EFFECT OF TEMPERATURE ON WATER

Water is one of the most remarkable substances in the universe. Discover some of the characteristics of water by completing these activities.

MATERIALS

- soft plastic container with tight-fitting lid
- water 2 metal pans
- salt soil

ACTIVITIES

1. Fill a soft plastic container with a tight-fitting lid (such as a margarine dish) completely to the top with water. Place the container in a freezer until the water is frozen.
2. Remove the container and observe its shape.
3. What happens to the size of water when it becomes solid? Does it expand (get larger), contract (get smaller), or stay the same? How do you know? _____

4. Try the above activity with a salt solution. Stir in as much salt as the water will dissolve. What happens? _____

5. Fill one pan with soil and another with water. Measure and record the temperature of the soil and water on the chart below.
6. Heat each pan for several minutes. Measure and record the temperature after heating.
7. Continue to heat each pan. Measure and record the temperature at intervals.
8. Allow the materials to cool for five minutes and check temperatures.
9. Measure again in another five minutes. What can you conclude about the temperature changes on land and water? _____

	Beginning Temp.	_____ min.	_____ min.	_____ min.	_____ min.
Soil					
Water					

10. Make a line graph of your results. Use one color for soil and a different color for water.

Color Key

- Soil
- Water

Beginning Temp. After Heating _____ min. After Heating _____ min. After Cooling _____ min. After Cooling _____ min.

