

## Chapter 18

## ACTIVITY 18-1

# • The Ups and Downs of the Ocean Floor

## Lab Preview

1. What information do you need to plot a point on the graph? \_\_\_\_\_  
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2. What would you expect to find at 0 km from New Jersey and at 0 m to the ocean floor?  
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*In Chapter 8, you graphed a profile of the United States. It is not easy to see the ocean floor, but data on depth of the ocean have been collected. In this activity, you will use this data to profile the Atlantic Ocean at 39° north latitude.*

### Problem

What does the ocean floor look like?

### Materials

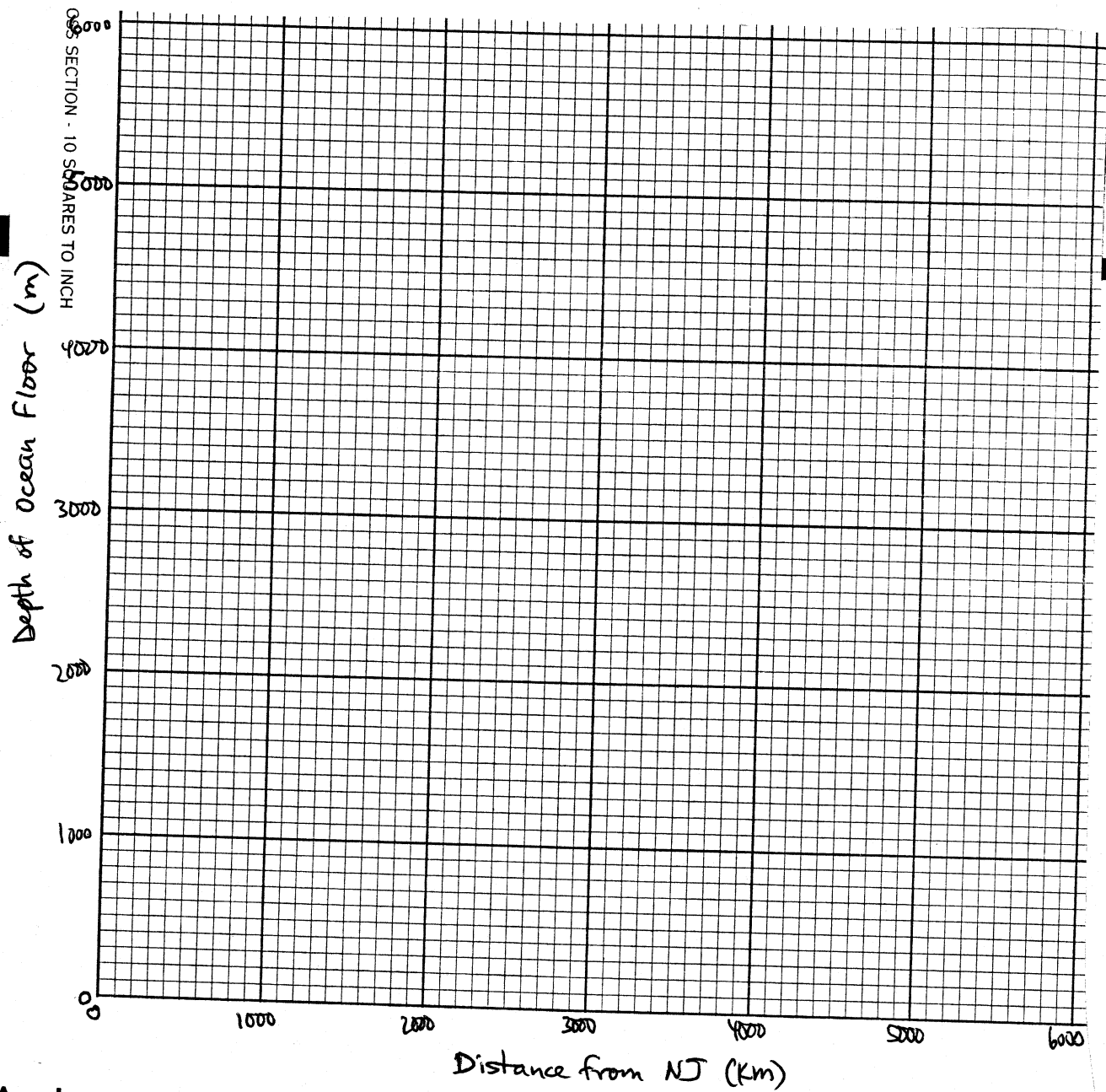
- graph paper

### Procedure

1. Set up a graph as shown on the next page.
2. Examine the data listed in the table. These data were collected at 29 ocean locations along 39° N latitude from New Jersey to Portugal.
3. Plot each data point and connect the points with a smooth line.

## Data and Observations

Station number	Distance from New Jersey (km)	Depth to ocean floor (m)	Station number	Distance from New Jersey (km)	Depth to ocean floor (m)
1	0	0	16	3550	2100
2	160	165	17	3600	1330
3	200	1800	18	3700	1275
4	500	3500	19	3950	1000
5	800	4600	20	4000	0
6	1050	5450	21	4100	1800
7	1450	5100	22	4350	3650
8	1800	5300	23	4500	5100
9	2000	5600	24	5000	5000
10	2300	4750	25	5300	4200
11	2400	3500	26	5450	1800
12	2600	3100	27	5500	920
13	3000	4300	28	5600	180
14	3200	3900	29	5650	0
15	3450	3400			



### Analyze

1. What ocean-floor structures occur between 160 and 1050 km east of New Jersey? Between 2000 and 4500 km? Between 5300 and 5600 km? \_\_\_\_\_

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2. When a profile is drawn to scale, both the horizontal and vertical scales must be the same. What is the vertical scale of your profile? What is the horizontal scale? \_\_\_\_\_

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3. Does your profile give an accurate picture of the ocean floor? Explain. \_\_\_\_\_

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