

## Science Skills-7

### Finding Trends in Data - Percentage

Once a scientist has gathered data from an experiment, it must be analyzed. A scientist looks for patterns in the data. Patterns in the data are called trends. Scientists look for trends in several ways. One way a scientist can describe trends in the data are to look at the percentages within the data.

**Directions:** Look at the tables below and determine the percentages asked for.

A botanist (a scientist that studies plants) measured the height of 5 bean plants after 4 weeks in an experiment. Here are the heights of the plants as the scientist recorded them:

| Plant        | A  | B  | C  | D  | E  |
|--------------|----|----|----|----|----|
| Height in cm | 11 | 15 | 10 | 18 | 20 |

1. What percentage of plants are 15 cm or taller? \_\_\_\_\_
2. What percentage of plants are 14 cm or shorter? \_\_\_\_\_

A zoologist (a scientist that studies animals) was counting the number of migrating birds in a rice field every Monday for a month. Here is what she found:

| Type of Bird   | Week 1 | Week 2 | Week 3 | Week 4 |
|----------------|--------|--------|--------|--------|
| Canadian Geese | 205    | 310    | 100    | 50     |
| Cow Bird       | 45     | 47     | 43     | 50     |
| Whooping Crane | 25     | 35     | 55     | 10     |

3. What percentage of weeks had less than 150 Canadian Geese? \_\_\_\_\_
4. What percentage of weeks had more than 30 Cow Birds? \_\_\_\_\_
5. What percentage of weeks had more than 15 Whooping Cranes? \_\_\_\_\_

An epidemiologist (a scientist that studies how diseases become epidemics) studied the number of people who got sick with the flu in 3 counties in Texas. This is what she found:

| County           | Harris | Fort Bend | Bexar |
|------------------|--------|-----------|-------|
| Number of people | 5087   | 2476      | 3239  |

6. What percentage of counties were higher than 3000? \_\_\_\_\_
7. What percentage of counties were lower than 6000? \_\_\_\_\_

An astronomer (a scientist who studies the stars) was counting the number of asteroids found near Earth during a 6 month time period. This is what he found:

| Month                      | Jan. | Feb. | March | Apr. | May | June |
|----------------------------|------|------|-------|------|-----|------|
| <b>Number of asteroids</b> | 10   | 17   | 13    | 18   | 20  | 5    |

8. What percentage months had more than 12 asteroids? \_\_\_\_\_
9. What percentage of months had less than 21 asteroids? \_\_\_\_\_
10. What percentage of months had more than 25 asteroids? \_\_\_\_\_

A paleontologist (a scientist who studies fossils) was trying to organize the fossils found in a museum. She started by counting how many were in each room. This is what she found:

| Fossil type     | Room A | Room B | Room C | Room D |
|-----------------|--------|--------|--------|--------|
| <b>Plant</b>    | 15     | 114    | 0      | 34     |
| <b>Animal</b>   | 265    | 89     | 78     | 12     |
| <b>Bacteria</b> | 14     | 12     | 1      | 3      |

11. What percentage of rooms had less than 30 plant fossils? \_\_\_\_\_
12. What percentage of rooms had more than 100 animal fossils? \_\_\_\_\_
13. What percentage of rooms had more than 10 bacteria fossils? \_\_\_\_\_
14. What percentage of rooms had less than 50 animal fossils? \_\_\_\_\_

A meteorologist (a scientist who studies the weather) measured the high and low temperatures for a week. This is what he found:

| Day of the Week  | Low Temperature °F | High Temperature °F |
|------------------|--------------------|---------------------|
| <b>Sunday</b>    | 43                 | 63                  |
| <b>Monday</b>    | 47                 | 68                  |
| <b>Tuesday</b>   | 35                 | 60                  |
| <b>Wednesday</b> | 60                 | 80                  |
| <b>Thursday</b>  | 63                 | 75                  |
| <b>Friday</b>    | 45                 | 65                  |
| <b>Saturday</b>  | 55                 | 75                  |

15. What percentage of low temperatures were below 60°F? \_\_\_\_\_
16. What percentage of high temperatures were above 70°F? \_\_\_\_\_
17. What is a botanist? \_\_\_\_\_
18. What is a zoologist? \_\_\_\_\_