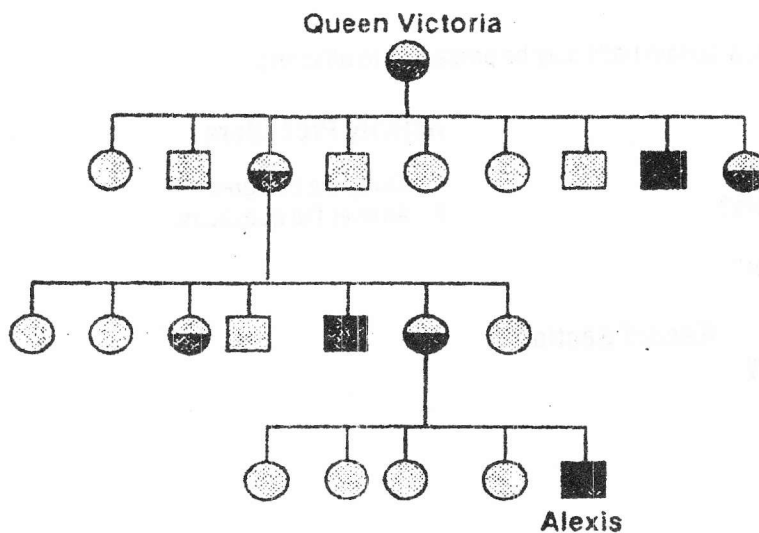


Lab Sheet: Student Investigation, pp. 461–463 (continued)

Part 2

The Pedigree of Queen Victoria

Below is a pedigree beginning with Queen Victoria of England. This pedigree represents the occurrence of hemophilia in a family. So that it is easier to interpret, some of the family members have not been included.



Refer to the pedigree to answer the questions.

1. How many children did Queen Victoria have? How many girls? Boys?
2. How many of her daughters were hemophiliacs? Were carriers?
3. How many male grandchildren were hemophiliacs?
4. How many of the great-grandchildren were hemophiliacs?
How many were girls? How many were boys?

Conclusion

1. Is it more likely for males or females to get hemophilia? Explain.
2. Why were all of the carriers in Queen Victoria's family female?
3. How are pedigrees helpful in determining family traits?

NAME _____ DATE _____

TaskSheet: Pedigrees

Main Question

How can pedigrees be used?

Objective

You will be able to use pedigrees to demonstrate how certain traits may be passed on to offspring.

Questions to Stimulate Inquiry

- 1. Where are the codes for traits stored in the cells?
- 2. Why do some traits appear more often than others?
- 3. Are all traits desirable?
- 4. Do undesirable traits sometimes skip generations?

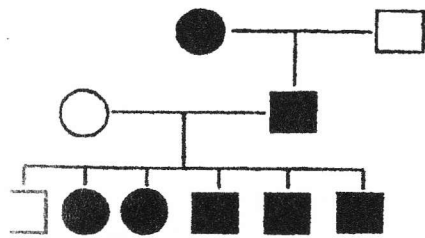
Activity Procedure





1. Study the pedigree.
2. Answer the questions.

Answers to Questions to Stimulate Inquiry

Record Section

Activities



-  Normal male
-  Normal female
-  Male with trait
-  Female with trait

What do circles represent?

What do squares represent?

What do colored circles and squares represent?

What does a horizontal line between a square and a circle represent?

What does a vertical line represent?

How are several children from a marriage represented?

Describe what is happening in the pedigree above.