

ACTIVITY 4: SICKLE CELL CASE STUDY – SONIA’S STORY

Directions: Listen and follow along as your teacher reads *Sonia’s Story*. Work individually or with a partner to answer the questions. Then, debrief as a class.

CASE STUDY: Sonia’s Story

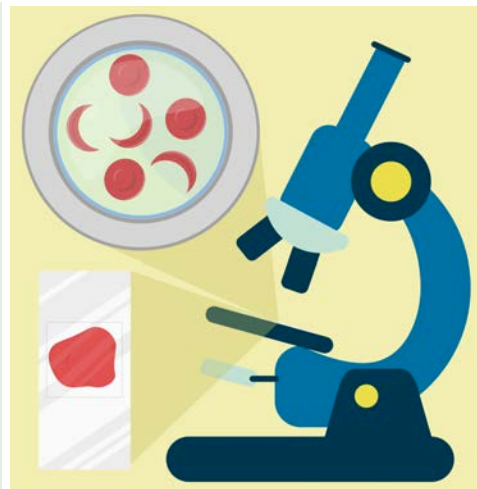
Sonia lives in Boston, Massachusetts. Her father was born in Nigeria, a country on the west coast of Africa. Sonia and her family go to Nigeria every summer to visit Sonia’s *paternal grandfather* (*their father’s father*).

When Sonia *returned* (*got back*) from her summer trip this year, she did not feel well—Sonia had body *aches* (*pain*) and was tired.

Sonia’s parents brought her to the doctor. The doctor took a sample of Sonia’s blood, and *discovered* (*found out*) something interesting.

Sonia had both normal red blood cells and sickled red blood cells.

The doctor told Sonia she has sickle cell **trait**. People with sickle cell **trait** usually don’t have *symptoms* (*signs*) of the disease. But, the doctor thinks Sonia felt sick because she was *dehydrated* (*did not drink enough water*).



→ **traits:** features or characteristics of a living thing that are passed from a parent to a child

→ **heterozygous:** features or characteristics of a living thing that are passed from a parent to a child

1. What kind of red blood cells does Sonia have?

Sonia has both...

2. What did the doctor tell Sonia?

The doctor told Sonia that she has...

3. What is Sonia’s genotype?

→ Hint: Look at the phenotype and genotype table on page 3.

Sonia’s genotype must be...

4. Why did Sonia feel sick?

Sonia felt sick because she was...