

Name: _____

Date: _____

Identify the Mutations

What are the three types of gene mutations?

Use this table to complete **Activity 4-2A Identify the Mutation** on p. 137

What to Do:

1. Write in the DNA sequence from #2 in the table. Put in **three letters** per square.
2. Write in the DNA sequence for 3a, b & c in the appropriate boxes below.
3. Highlight any errors in a, b & c.
4. Identify the type of mutation.
5. Write in your own mutation in line (d) and complete step 3 & 4 for it.

| DNA | | | | | | | | | | | | Type of Mutation |
|------|--|--|--|--|--|--|--|--|--|--|--|------------------|
| 3(a) | | | | | | | | | | | | |
| 3(b) | | | | | | | | | | | | |
| 3(c) | | | | | | | | | | | | |
| 3(d) | | | | | | | | | | | | |

What Did You Find Out?

1. _____

2. _____

Read p. 136 and answer the following:

What colour is the "Spirit Bear"?

Why is it that colour?

How many genes are affected to result in its colour?

Use with textbook pages 136–143.

Gene mutation

Answer the questions below.

1. What is a gene mutation?

2. Give the three types of gene mutations.

3. What type of mutation is beneficial to an organism?

4. Give one example of a negative mutation.

5. What type of mutation appears to have no effect on an organism?

6. What are mutagens?

7. Give four examples of environmental mutagens.

8. What are researchers doing to the mutated gene when they use gene therapy?
