

## Anthrax DNA Fragments from the Guilty Lab

oage '

Before class, make ONE copy of this sheet, since only one pair of students will receive this sequence. Cut the strips along the dotted lines, shuffle them, and place them in an envelope. Do not tell students which envelope holds the guilty sequence (TGACAATCAG). If you plan to reuse the materials, number all the envelopes (e.g., 1–15) and note which one holds the guilty sequence. Also, consider laminating the strips.

| <i>-</i> |   |               |               |               |               |               |               |               |               | G             |
|----------|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>~</b> |   |               |               |               |               |               |               |               | Α             | Position<br>1 |
|          |   |               |               |               |               |               |               |               | Α             | Position<br>1 |
|          |   |               |               |               |               |               |               | С             | Position<br>2 | Position<br>1 |
|          |   |               |               |               |               |               | Т             | Position<br>3 | Position<br>2 | Position<br>1 |
|          |   |               |               |               |               |               | Т             | Position<br>3 | Position<br>2 | Position<br>1 |
|          |   |               |               |               |               |               | Т             | Position<br>3 | Position<br>2 | Position<br>1 |
|          |   |               |               |               |               | Α             | Position<br>4 | Position<br>3 | Position<br>2 | Position<br>1 |
|          |   |               |               |               | Α             | Position<br>5 | Position<br>4 | Position<br>3 | Position<br>2 | Position<br>1 |
|          |   |               |               |               | Α             | Position<br>5 | Position<br>4 | Position<br>3 | Position<br>2 | Position<br>1 |
|          |   |               |               |               | Α             | Position<br>5 | Position<br>4 | Position<br>3 | Position<br>2 | Position<br>1 |
|          |   |               |               | С             | Position<br>6 | Position<br>5 | Position<br>4 | Position<br>3 | Position<br>2 | Position<br>1 |
|          |   |               | Α             | Position<br>7 | Position<br>6 | Position<br>5 | Position<br>4 | Position<br>3 | Position<br>2 | Position<br>1 |
|          |   | G             | Position<br>8 | Position<br>7 | Position<br>6 | Position<br>5 | Position<br>4 | Position<br>3 | Position<br>2 | Position<br>1 |
|          |   | G             | Position<br>8 | Position<br>7 | Position<br>6 | Position<br>5 | Position<br>4 | Position<br>3 | Position<br>2 | Position<br>1 |
|          | Т | Position<br>9 | Position<br>8 | Position<br>7 | Position<br>6 | Position<br>5 | Position<br>4 | Position<br>3 | Position<br>2 | Position<br>1 |
|          | Т | Position<br>9 | Position<br>8 | Position<br>7 | Position<br>6 | Position<br>5 | Position<br>4 | Position<br>3 | Position<br>2 | Position<br>1 |

## Anthrax Investigation | Teacher Blackline Master



## Anthrax DNA Fragments from the Innocent Labs

page 2

Before class, make enough copies of this page for the remaining pairs of students. Cut the strips along the dotted lines, shuffle them, and place each set in its own envelope. Do not tell students which envelopes hold the innocent sequences (TGACAATCGG).

| <b>م</b> |   |               |               |               |               |               |               |               |               | G             |
|----------|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| ~        |   |               |               |               |               |               |               |               | G             | Position<br>1 |
|          |   |               |               |               |               |               |               |               | G             | Position<br>1 |
|          |   |               |               |               |               |               |               | С             | Position<br>2 | Position<br>1 |
|          |   |               |               |               |               |               | Т             | Position<br>3 | Position<br>2 | Position<br>1 |
|          |   |               |               |               |               |               | Т             | Position<br>3 | Position<br>2 | Position<br>1 |
|          |   |               |               |               |               | Α             | Position<br>4 | Position<br>3 | Position<br>2 | Position<br>1 |
|          |   |               |               |               | A             | Position<br>5 | Position<br>4 | Position<br>3 | Position<br>2 | Position<br>1 |
|          |   |               |               |               | Α             | Position<br>5 | Position<br>4 | Position<br>3 | Position<br>2 | Position<br>1 |
|          |   |               |               | С             | Position<br>6 | Position<br>5 | Position<br>4 | Position<br>3 | Position<br>2 | Position<br>1 |
|          |   |               |               | С             | Position<br>6 | Position<br>5 | Position<br>4 | Position<br>3 | Position<br>2 | Position<br>1 |
|          |   |               |               | С             | Position<br>6 | Position<br>5 | Position<br>4 | Position<br>3 | Position<br>2 | Position<br>1 |
|          |   |               | Α             | Position<br>7 | Position<br>6 | Position<br>5 | Position<br>4 | Position<br>3 | Position<br>2 | Position<br>1 |
|          |   | G             | Position<br>8 | Position<br>7 | Position<br>6 | Position<br>5 | Position<br>4 | Position<br>3 | Position<br>2 | Position<br>1 |
|          | Т | Position<br>9 | Position<br>8 | Position<br>7 | Position<br>6 | Position<br>5 | Position<br>4 | Position<br>3 | Position<br>2 | Position<br>1 |
|          | Т | Position<br>9 | Position<br>8 | Position<br>7 | Position<br>6 | Position<br>5 | Position<br>4 | Position<br>3 | Position<br>2 | Position<br>1 |
|          | Т | Position<br>9 | Position<br>8 | Position<br>7 | Position<br>6 | Position<br>5 | Position<br>4 | Position<br>3 | Position<br>2 | Position<br>1 |