Name:

Date:

DNA Sequencing: Reviewing the Process

(http://discoveringthegenome.org/discovering-genome/dna-sequencing/review-process-dna-sequencing)

Please use the diagrams on the website to answer the following questions:

1. How many strings are on the flow cell surface in this example?

2. If you focus on the top left spatial position (the one with the “CA????.....” string), what complementary base will pair with the first nucleotide, “C”? If that complementary base attaches to this position, what color will that position light up?

3. If instead of a “C” in this first position, you have an “A,” then what color would the spot light up?

4. What color would the spot light up if the first base were “G”?

5. If the spot lights up red, what base must be in the first position in this spot? Why?

6. How many strings have a base that paired with “T”? Which strings? What base must these strings have in their DNA sequence that caused you to see the blue color?

7. How many times do you need to go through the cycle of applying each colored nucleotide if your strings are 150 bases long?