Name:
Date:

QC2 -DNA Structure & Cisplatin

1. What are the components of a DNA nucleotide?

2. Which type of bonding forms the backbone of a polynucleotide?

3. Which type of bonding holds the two DNA chains together to form a double helix?

4. Describe how complementarity causes the two DNA strands to combine.

5. Design a complementary base sequence for the polynucleotide strand below:

Strand 1	A	T	A	C	C	G	C	T	C	G	A	A
Strand 2												

6. Cisplatin, $Pt(NH_3)_2Cl_2$, is a compound frequently used as an anticancer drug. Explain how cisplatin can treat cancers and tumours.

7. Describe the difference between cisplatin and transplatin.

8. Explain why transplatin may not be as effective as cisplatin.

9. Cisplatin also targets healthy cells, as well as cancerous ones. How can any dangerous side effects be reduced?

Produced by Adam Stubbs at Newcastle University as part of a summer outreach project.