

CANCER AND YOU

Cancer is not just one disease, but many diseases that are the result of uncontrolled growth and spreading of abnormal cells. If the spread of cancer cells go uncontrolled, it can result in death. There are many environmental factors as well as hereditary links that cause cancer.

For the year 2007, there is an estimated 1.5 million new cases of cancer expected to affect the United States alone. 560,000 people are expected to die from cancer in 2007. There is a lot of research going on in the field to help understand the disease better, as well as develop new treatments.

Because cancer affects so many people, it is very important that **everyone** understands what causes this disease. Doctors and Researchers work every day to try and inform the public about what causes cancer, what people can do to decrease their risk of getting cancer, and what they must do if they have cancer.

Today you and a partner are going to begin to prepare a presentation to inform the class about a specific type of cancer as well (and most importantly) the biological processes involved in cancer development.

To get you started, you should use the following websites as references:

<http://www.cancerquest.org>

<http://www.cancer.org>

Cancers to pick from:

Pancreatic Cancer

Colon Cancer

Lymphoma

Leukemia

Liver Cancer

Lung Cancer (small cell or non-small cell)

Include **pictures** in your presentation as well to help explain what you are talking about.

Your presentation should include slides with the following information:

Slide 1: Title slide (include your names!)

Slide 2: Intro to the cancer you are looking at; what is it, where does it start?

Slide 3: Risk factors of your cancer. Include as many as you can.

Slide 4: Biology of cancer (for example: how does the cell cycle change in cells that are cancerous? To answer this, you must be able to discuss how the cell cycle normally functions)

Slide 5: What happens to DNA to cause cancer? Include at least 1 cause and 2 types of genetic changes.

Slide 6: Treatment: what types of treatment are common for the cancer you are looking at? Biologically, how do they work? Include at least 2 types.

Slide 7: Prevention: Is there any way to prevent the cancer you are studying? If not, are there things that you can do to prevent cancer as a whole disease? Include as many as you can

For starters, it is easiest if you first go to www.cancer.org and search for the cancer you are studying by just typing it into the search box. From this page, you should be able to get information about the disease, how it is cause, what the risk factors are, how it is treated, and how it is prevented.

To find information on the biology of cancer, go to www.cancerquest.org and on the left hand side you will see many topics. You should start by looking at the topic **Cell Division** and read about the cell cycle and how it is different in cancer cells.

Then, read about what happens to DNA to cause cancer under **Genetic Change**. Read the sections on **Types of Genetic Change** and **Causes of Genetic Change**.

You can find the types of treatment used in the cancer you are studying at www.cancer.org, and then you can learn how they work at www.cancerquest.org.

Grade Sheet
Cancer and You Presentation

Names _____ Date _____ Period _____

Grading will go as follows:

	Points Possible	Points Earned
Neatness, Creativity, Use of at least 3 pictures in presentation	5	
Slide 1: Completeness	2	
Slide 2: Completeness	5	
Slide 3: Include at least 2 risk factors	2	
Slide 4: Correctly describe the cell cycle and explain how cancer cells "break the rules"	10	
Slide 5: Discuss at least 1 type of cause of genetic change and 2 types of genetic change	10	
Slide 6: Discuss the correct types of treatment and discuss how they work biologically	10	
Slide 7: Include at least 3 ways to prevent cancer	6	
Total Possible Points	50	

