A&P - Cancer Web-Quest


2) [http://www.nobelprize.org/educational/medicine/2001/cellcycle.html](http://www.nobelprize.org/educational/medicine/2001/cellcycle.html) - Play the Cell Cycle Game

   - Did you succeed in completing the cycle before energy ran out? If not, try again.
   - At the checkpoints in the cell cycle, what types of things are checked?


   - Click “Launch Interactive.” Watch and read all the way through the entire interactive
   - Define angiogenesis, metastasis, and any other unfamiliar terms associated with cancer


   - How are cancer and mitosis related? *(read abstract and introduction)*
   - List and briefly describe three mitotic errors that are linked with colorectal cancer. *(notice headings)*

Use this website to complete the following items:  [http://www.insidecancer.org/](http://www.insidecancer.org/) - website “Inside Cancer”

Use the 4 sections and the links under each section to complete the following items.

5) Causes & Prevention: Overview

   - What percentage of cancers are inherited? ____  Caused by synthetic chemicals? ____
   - On the world map, what is a “cancer hotspot?” How do they use a map to help find answers about cancer?
     - Click the arrow in the Cancer Epidemiology box. Use the list of cancer types at the bottom.
     - Where is breast cancer highest? What do the hot spots have in common?
     - Pick two other cancers and answer the same two questions about each type you chose.

6) Causes & Prevention: Inheritance

   - Why do they say all cancers are genetic?
   - Click the arrow next to Cancer Gene Types. Watch the video/read the script.
     - List and briefly describe the 3 types of genes linked to cancer.

7) Diagnosis & Treatment: Targeted Activators

   - Click the arrow next to Irressa and Lung Cancer
     - How does Irressa work?
     - What causes Irressa to be effective in some patients and not in others?

8) Diagnosis & Treatment: Blocking Receptors

   - What hormone causes breast cancer to grow?
   - How does the drug Tamoxifen work?
   - What is the other targeted receptor in fighting breast cancer? How does it contribute to tumor growth?
   - How does an antibody work?

9) Pathways to Cancer: Overview
- Describe the difference between chemical signaling in normal cells and cancer cells
- Watch the rest of the *Pathways to Cancer* videos in order. They will help you review the DNA processes.