Cancer: Cell Division Gone Wrong (Read 2.7 in text to answer)

Expectations: B1.2: assess the importance to human health and/or society of medical imaging tech.
B1.3: describe public health strategies related to systems biology.
B2.5: investigate the rate of cell division in cancerous and non-cancerous cells

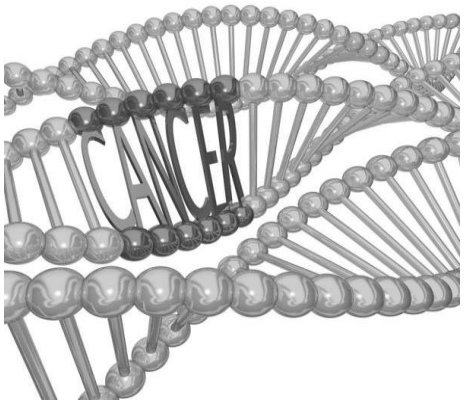
Require: textbook (Part A) & microview/slides (Part B)

Part A: Read pages 48-55 in your text and answer the following. Questions are in order.

1. How is the behaviour of cancer cells different from that of normal cells?

2. a) Is cancer inherited, caused by environmental factors or both? Explain.

b) Can you catch cancer from a person who has cancer?



3. a) What is a carcinogen?

b) Name 3 known carcinogens. If you can link the carcinogen to the cancer, that is best.

4. a) Why might it easy to overlook cancer in its early stages?

b) Briefly describe the cancer screening a woman should do.

c) Briefly describe the cancer screening a man should do.

5. a) List 5 imaging techniques that can diagnose cancer

_____, _____, _____, _____, _____

b) Briefly describe 2 of them.

Imaging Technique #1	Imaging Technique #2
Description:	Description:

6. Briefly describe the 3 main conventional methods of treating cancer.

7. Why might a doctor be concerned to find cancer cells in a patient's blood?

8. Identify at least 3 simple lifestyle changes that **you** can do to reduce your chance of developing cancer.

9. Why might there be a risk of cancer recurring even when surgery is performed to remove a malignant tumour?

Part B: Using the microviewers, review the cancer slides #1 (normal skin cells) and #2 (cancerous skin cells) to answer the following questions.

10. Even without the labels, you could identify the clump of cancer cells (tumour). Describe the appearance of the tumour.

11. What do you observe about the organization of the normal skin tissue compared to the cancerous skin tissue?

12. We have been told that too much exposure to sun can cause skin cancer. Should this happen, we might notice an unusual mole on our skin. Would this patient (see slide #2) noticed an usual mole? Explain your answer.