**CANCER MICROVIEWER ACTIVITY**

Read through the booklet and examine the slides. Throughout this activity, you should be looking for the visual differences between normal and cancerous cells.

**Slide 1: Healthy Skin Tissue**

Can you see the different types of cells that make up the skin? Describe them.

**There are 3 layers. The top layer is a thin layer, with long thin cells. The middle layer is thicker, and reaches into the third layer. The third layer is the thickest, composed of many cells, with spaces between them. The closer to the surface,the fewer spaces.**

**Slide 2: Cancerous Skin Tissue**

Compare this slide to Slide 1. How have the cancer cells affected the healthy skin tissue patterns?

**The cancer cells interrupt the regular pattern of the normal cells. The physical appearance is very different from the normal cells. Cancer cells are round, globular cells.**

**Slide 3: Tumour**

Why does a large tumour require blood vessels?

**They require blood vessels to supply them with nutrients. They are taking these nutrients from the body.**

After reading the last paragraph, speculate about how this is possible if the chromosomes still have telomeres.

**Student hypothesis**

**Slide 4: Lung**

Before reading the information, which side of the slide do you think shows cancerous lung tissue? Why?

**Student Opinion. The slide on the right. The round, globular cells are the cancer cells.**

**Slide 5: Melanoma/Carcinoma**

Refer to the chart on p. 50 in the text. What warning signs does the melanoma exhibit?

**Asymmetry – the melanoma is unbalanced**

**Border – the melanoma border is ragged**

**Colour – the melanoma colour varies**

Why might severe sunburns lead to skin cancer?

**Sunburns result from UV rays. These can also cause mutations in the DNA. Severe sunburns result form an excess of UV rays. This leads to a greater chance for mutation of the DNA to cause cancer.**

**Slide 6: Colon**

Can you see the dark purple cancer cells forcing their way into the normal tissue?

**Yes**

Why do you think diet can play a large role in causing cancers of the digestive system?

**The digestive system exists to digest foods and extract nutrients. An improper diet causes greater stress in the digestive system. This can lead to a greater chance for mutations to occur.**

**Slide 7: Breast**

Can you identify the cancerous cells? How?

**Yes; they are the dark purple clumps. They disrupt the pattern of the normal cells.**

**Slide 8: Testes/Cervix**

Can you identify the cancerous cells? How?

**Yes; they are the globular shaped cells disrupting the pattern of the normal cells.**

**Summary**

Summarize the visual differences between normal and cancerous cells.

**Normal cells resemble the cells around them. They are usually specialized, which is evident in their shape. As well, they follow a regular pattern.**

**Cancerous cells do not resemble the cells around them. They are generally globular in shape. They interrupt the pattern of the normal cells.**