Cancer Research Project

This unit project focuses on what happens when cells do not function correctly. Many people are affected by cancer; you may even have some family members or friends that have or have had cancer. I suggest that you choose a cancer that affects someone you know or intrigues you because it is interesting. The goal is to research the cancer and orally present information and recent research through a group PowerPoint presentation. The presentation should be an advertisement for a current treatment or way to avoid getting that cancer (i.e., not smoking).

|  |  |  |
| --- | --- | --- |
| Cancer | Description | Websites |
| Bladder Cancer | Bladder cancer is cancer of the sac that collects and holds urine until it exits your body. | <http://www.cancer.gov>  <http://www.nlm.nih.gov/medlineplus>  <http://www.mayoclinic.com>  <http://www.cancer.org>  <http://jama.ama-assn.org>  <http://kidney.niddk.nih.gov>  <http://www.afud.org> |
| Brain | Adult [brain tumors](http://www.cancer.gov/Common/PopUps/popDefinition.aspx?id=387264&version=Patient&language=English) are diseases in which [cancer](http://www.cancer.gov/Common/PopUps/popDefinition.aspx?id=45333&version=Patient&language=English) ([malignant](http://www.cancer.gov/Common/PopUps/popDefinition.aspx?id=45772&version=Patient&language=English)) [cells](http://www.cancer.gov/Common/PopUps/popDefinition.aspx?id=46476&version=Patient&language=English) begin to grow in the [tissues](http://www.cancer.gov/Common/PopUps/popDefinition.aspx?id=46683&version=Patient&language=English) of the brain. | <http://www.abta.org>  <http://www.tbts.org>  <http://www.braintumor.org>  <http://www.cancer.gov>  <http://www.nlm.nih.gov/medlineplus>  <http://www.mayoclinic.com>  <http://www.cancer.org> |
| Breast Cancer | Breast cancer is a disease in which malignant (cancer) cells form in the tissues of the breast. | <http://www.avoncompany.com/women/avoncrusade>  <http://www.cbhp.org>  <http://www.hopkinsbreastcenter.org>  <http://www.komen.org>  <http://www.y-me.org>  <http://www.halls.md/breast/risk>  <http://www.cancer.gov>  <http://www.nlm.nih.gov/medlineplus>  <http://www.mayoclinic.com>  <http://www.cancer.org> |
| Colon and Rectal Cancer | Colon cancer is a disease in which malignant (cancer) cells form in the tissues of the colon, the large intestine.  Rectal cancer is a disease in which malignant (cancer) cells form in the tissues of the rectum, the last part of the body’s digestive system. | <http://www.cancer.gov>  <http://www.nlm.nih.gov/medlineplus>  <http://www.mayoclinic.com>  <http://www.cancer.org>  <http://digestive.niddk.nih.gov>  <http://www.asco.org> |
| Endometrial Cancer | Endometrial cancer is a disease in which malignant (cancer) cells form in the tissues of the endometrium. The [endometrium](http://www.cancer.gov/Common/PopUps/popDefinition.aspx?id=46108&version=Patient&language=English) is the lining of the [uterus](http://www.cancer.gov/Common/PopUps/popDefinition.aspx?id=46645&version=Patient&language=English), where a [fetus](http://www.cancer.gov/Common/PopUps/popDefinition.aspx?id=46400&version=Patient&language=English) grows. | <http://www.nlm.nih.gov/medlineplus>  <http://www.cancer.gov>  <http://www.mayoclinic.com>  <http://www.cancer.org>  <http://www.yourdiseaserisk.harvard.edu/hccpquiz.pl?lang=english&func=home&quiz=uterine>  <http://www.4woman.gov> |
| Kidney Cancer (Renal Cell) | [Renal cell cancer](http://www.cancer.gov/Common/PopUps/popDefinition.aspx?id=44988&version=Patient&language=English) (also called [kidney](http://www.cancer.gov/Common/PopUps/popDefinition.aspx?id=46325&version=Patient&language=English) [cancer](http://www.cancer.gov/Common/PopUps/popDefinition.aspx?id=45333&version=Patient&language=English) or renal [adenocarcinoma](http://www.cancer.gov/Common/PopUps/popDefinition.aspx?id=46216&version=Patient&language=English)) is a disease in which [malignant](http://www.cancer.gov/Common/PopUps/popDefinition.aspx?id=45772&version=Patient&language=English) (cancer) [cells](http://www.cancer.gov/Common/PopUps/popDefinition.aspx?id=46476&version=Patient&language=English) are found in the lining of tubules (very small tubes) in the kidney. | <http://www.nlm.nih.gov/medlineplus>  <http://www.cancer.gov>  <http://www.mayoclinic.com>  <http://www.cancer.org>  <http://jama.ama-assn.org>  <http://www.afud.org/education/kidney/kidneycancer>  <http://kidney.niddk.nih.gov> |
| Leukemia | Leukemia is cancer that begins in blood cells and can affect adults as well as children. | <http://www.nlm.nih.gov/medlineplus>  <http://www.cancer.gov>  <http://kidshealth.org/parent/medical/cancer/cancer_leukemia>  <http://www.mayoclinic.com>  <http://www.cancer.org>  <http://www.leukemia-lymphoma.org> |
| Lung Cancer | Cancers that begin in the lungs are divided into two major types, [non-small cell lung cancer](http://www.cancer.gov/dictionary/db_alpha.aspx?expand=n#non-small cell lung cancer) and [small cell lung cancer](http://www.cancer.gov/dictionary/db_alpha.aspx?expand=s#small cell lung cancer), depending on how the cells look under a microscope. Each type of lung cancer grows and spreads in different ways and is treated differently. | <http://www.nlm.nih.gov/medlineplus>  <http://www.cancer.gov>  <http://www.mayoclinic.com>  <http://www.cancer.org>  <http://www.lungusa.org>  <http://www.lungcancer.org>  <http://www.ncbi.nlm.nih.gov>  <http://www.yourdiseaserisk.harvard.edu/hccpquiz.pl?lang=english&func=home&quiz=lung> |
| Melanoma | Melanoma is a disease in which malignant (cancer) cells form in the skin cells called melanocytes (cells that color the skin). | <http://www.nlm.nih.gov/medlineplus>  <http://www.cancer.gov>  <http://www.mayoclinic.com>  <http://www.cancer.org>  <http://familydoctor.org/666.xml>  <http://www.skincarephysicians.com/skincancernet>  <http://www.yourdiseaserisk.harvard.edu/hccpquiz.pl?lang=english&func=home&quiz=melanoma>  <http://www.skincancer.org> |
| Non-Hodgkin’s Lymphoma | Adult non-Hodgkin’s lymphoma is a disease in which malignant (cancer) cells form in the lymph system. The [lymph system](http://www.cancer.gov/Common/PopUps/popDefinition.aspx?id=45764&version=Patient&language=English) is part of the [immune system](http://www.cancer.gov/Common/PopUps/popDefinition.aspx?id=46356&version=Patient&language=English) and can spread to the [liver](http://www.cancer.gov/Common/PopUps/popDefinition.aspx?id=46312&version=Patient&language=English) and many other organs and tissues. | <http://www.nlm.nih.gov/medlineplus>  <http://www.cancer.gov>  <http://www.mayoclinic.com>  <http://www.cancer.org>  <http://www.marrow.org>  <http://www.lymphoma.org>  <http://www.leukemia-lymphoma.org> |
| Pancreatic Cancer | Pancreatic cancer is one of the most serious of all cancers. It develops when malignant cells form in the tissues of your pancreas — a large organ that lies horizontally behind the lower part of your stomach. | <http://www.nlm.nih.gov/medlineplus>  <http://www.cancer.gov>  <http://www.mayoclinic.com>  <http://www.pancreasfoundation.org>  <http://www.cancer.org>  <http://www.pancreatica.org>  <http://pathology2.jhu.edu/pancreas/hered.cfm>  <http://www.yourdiseaserisk.harvard.edu/hccpquiz.pl?func=d_start&cancer_list=Pancreatic> |
| Prostrate Cancer | Prostate cancer is cancer of the prostate gland. The prostate's primary function is to produce seminal fluid, the fluid that nourishes and transports sperm. | <http://www.nlm.nih.gov/medlineplus>  <http://www.cancer.gov>  <http://www.mayoclinic.com>  <http://www.cancer.org>  <http://www.prostatecancerfoundation.org>  <http://www.afud.org>  <http://www.genome.gov>  <http://www.cdc.gov/cancer/prostate> |
| Skin Cancer (Non-Melanoma) | Basal cell and squamous cell are the two most common and comprise the large majority of cases of nonmelanoma skin cancer. Both are superficial, slow growing and highly treatable, especially if found early. | <http://www.nlm.nih.gov/medlineplus>  <http://www.cancer.gov>  <http://www.mayoclinic.com>  <http://www.cancer.org>  <http://www.skincancer.org>  <http://www.asds-net.org>  <http://www.aad.org> |
| Thyroid Cancer | Thyroid cancer is cancer of the thyroid gland, the gland that produces hormones that regulate every aspect of your metabolism. | <http://www.nlm.nih.gov/medlineplus>  <http://www.cancer.gov>  <http://www.mayoclinic.com>  <http://www.cancer.org>  <http://www.thyroid.org>  <http://ghr.nlm.nih.gov/condition=multipleendocrineneoplasiatype2> |

Group Names: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Cancer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Cancer Presentation Grading Rubric**

|  |  |  |  |
| --- | --- | --- | --- |
| Presentation Requirements | Earned Points | Possible Points | Comments |
| Introduction   * Name the cancer * Introduce team members |  | 20 |  |
| Definition of the cancer   * What happens to the cells? * What part of the body does it generally affect? |  | 20 |  |
| Description of the symptoms   * List all of the possible effects on the body |  | 10 |  |
| Possible causes of the cancer   * Are there environmental or health factors that can cause the cancer? * Can the cancer be inherited? |  | 20 |  |
| Prevention   * What can be done to prevent getting this cancer? |  | 10 |  |
| How the cancer is treated   * Medications? Surgery? * Chemotherapy? Radiation? * Nutrition? Lifestyle choices? |  | 30 |  |
| How the cancer is diagnosed   * What tests are done? * Are scans done with MRI, CAT scan, PET scan, X-ray, or ultrasound machines? |  | 20 |  |
| How many and what type of people are likely to have the disorder   * Is it more common in a certain group of people? * How common is it? |  | 20 |  |
| Application of research article   * What new information did you learn from your research? |  | 10 |  |
|  |  |  |  |
| **Total Points Earned** |  | **160** |  |

Cancer Presentation Research Sheet

Research Site: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
| Presentation Requirements | Research |
| Definition of the cancer   * What happens to the cells? * What part of the body does it generally affect? |  |
| Description of the symptoms   * List all of the possible effects on the body |  |
| Possible causes of the cancer   * Are there environmental or health factors that can cause the cancer? * Can the cancer be inherited? |  |
| Prevention   * What can be done to prevent getting this cancer? |  |
| How the cancer is treated   * Medications? Surgery? * Chemotherapy? Radiation? * Nutrition? Lifestyle choices? |  |
| How the cancer is diagnosed   * What tests are done? * Are scans done with MRI, CAT scan, PET scan, X-ray, or ultrasound machines? |  |
| How many and what type of people are likely to have the disorder   * Is it more common in a certain group of people? * How common is it? |  |

Cancer Presentation Research Sheet

Research Site: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
| Presentation Requirements | Research |
| Definition of the cancer   * What happens to the cells? * What part of the body does it generally affect? |  |
| Description of the symptoms   * List all of the possible effects on the body |  |
| Possible causes of the cancer   * Are there environmental or health factors that can cause the cancer? * Can the cancer be inherited? |  |
| Prevention   * What can be done to prevent getting this cancer? |  |
| How the cancer is treated   * Medications? Surgery? * Chemotherapy? Radiation? * Nutrition? Lifestyle choices? |  |
| How the cancer is diagnosed   * What tests are done? * Are scans done with MRI, CAT scan, PET scan, X-ray, or ultrasound machines? |  |
| How many and what type of people are likely to have the disorder   * Is it more common in a certain group of people? * How common is it? |  |

Cancer Poster Self Evaluation

|  |  |  |
| --- | --- | --- |
| Presentation Requirements | Cumulative Research | Points |
| Definition of the cancer   * What happens to the cells? * What part of the body does it generally affect?   Sites: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  | \_\_\_\_\_  20 |
| Description of the symptoms   * List all of the possible effects on the body   Sites: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  | \_\_\_\_\_  10 |
| Possible causes of the cancer   * Are there environmental or health factors that can cause the cancer? * Can the cancer be inherited?   Sites: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  | \_\_\_\_\_  20 |
| Prevention   * What can be done to prevent getting this cancer?   Sites: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  | \_\_\_\_\_  10 |
| How the cancer is treated   * Medications? Surgery? * Chemotherapy? Radiation? * Nutrition? Lifestyle choices?   Sites: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  | \_\_\_\_\_  30 |
| How the disorder is diagnosed   * What tests are done? * Are scans done with MRI, CAT scan, PET scan, X-ray, or ultrasound machines?   Sites: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  | \_\_\_\_\_  20 |
| How many and what type of people are likely to have the disorder   * Is it more common in a certain group of people? * How common is it?   Sites: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  | \_\_\_\_\_ 20 |
| Application of research article   * What new information did you learn from your research?   Resource: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  | \_\_\_\_\_  10 |
|  |  |  |
| Total Points Earned |  | **\_\_\_\_\_**  **140** |

**Cancer Presentation Job Worksheet**

|  |  |
| --- | --- |
| Partner | Poster Highlights |
| **1** | **Title**: Presentation Title *(be persuasive & creative!),* team members *(in smaller font)*  **Definition**: What happens to the cells; part of body affected  **Symptoms**: List of all effects on body |
| **2** | **Causes**: Are there environmental or health factors that can be causes?  Can the cancer be inherited? *(Your illustration could focus on just 1 cause)*  **Prevention:** What can be done to prevent getting this cancer? |
| **3** | **Treatments**: Medications? Surgery? Chemotherapy? Radiation?  Nutrition? Lifestyle choices? *(Your illustration could also focus on 1 or more of these)*  **Diagnosis**: What tests are done? Are scans done with MRI, CAT scan, PET scan, X-ray, or ultrasound machines? |
| **4** | **Frequency in Population:** more common in certain group; how common it is  **Article**: new information found from research |

**Cancer Presentation Job Worksheet**

|  |  |
| --- | --- |
| Partner | Poster Highlights |
| **1** | **Title**: Presentation Title *(be persuasive & creative!),* team members *(in smaller font)*  **Definition**: What happens to the cells; part of body affected  **Symptoms**: List of all effects on body |
| **2** | **Causes**: Are there environmental or health factors that can be causes?  Can the cancer be inherited? *(Your illustration could focus on just 1 cause)*  **Prevention:** What can be done to prevent getting this cancer? |
| **3** | **Treatments**: Medications? Surgery? Chemotherapy? Radiation?  Nutrition? Lifestyle choices? *(Your illustration could also focus on 1 or more of these)*  **Diagnosis**: What tests are done? Are scans done with MRI, CAT scan, PET scan, X-ray, or ultrasound machines? |
| **4** | **Frequency in Population:** more common in certain group; how common it is  **Article**: new information found from research |

**Cancer Presentation Job Worksheet**

|  |  |
| --- | --- |
| Partner | Poster Highlights |
| **1** | **Title**: Presentation Title *(be persuasive & creative!),* team members *(in smaller font)*  **Definition**: What happens to the cells; part of body affected  **Symptoms**: List of all effects on body |
| **2** | **Causes**: Are there environmental or health factors that can be causes?  Can the cancer be inherited? *(Your illustration could focus on just 1 cause)*  **Prevention:** What can be done to prevent getting this cancer? |
| **3** | **Treatments**: Medications? Surgery? Chemotherapy? Radiation?  Nutrition? Lifestyle choices? *(Your illustration could also focus on 1 or more of these)*  **Diagnosis**: What tests are done? Are scans done with MRI, CAT scan, PET scan, X-ray, or ultrasound machines? |
| **4** | **Frequency in Population:** more common in certain group; how common it is  **Article**: new information found from research |

**Cancer Presentation Checklist**

Team Members: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Cancer Type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
|  | Poster Highlights |
|  | **Title**: Project Title (persuasive & creative), team members (smaller font) |
|  | **Definition**: What happens to the cells; part of body affected |
|  | **Symptoms**: List of all effects on body |
|  | **Causes**: Are there environmental or health factors that can be causes?  Can the cancer be inherited? *(Your illustration could focus on just 1 cause)* |
|  | Prevention: What can be done to prevent getting this cancer? |
|  | **Treatments**: Medications? Surgery? Chemotherapy? Radiation?  Nutrition? Lifestyle choices? *(Your illustration could also focus on 1 or more of these)* |
|  | **Diagnosis**: What tests are done? Are scans done with MRI, CAT scan, PET scan, X-ray, or ultrasound machines? |
|  | **Frequency in Population**: More common in a certain group; how common is it? |
|  | **Article**: new information found from research |

**Cancer Presentation Checklist**

Team Members: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Cancer Type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
|  | Poster Highlights |
|  | **Title**: Project Title (persuasive & creative), team members (smaller font) |
|  | **Definition**: What happens to the cells; part of body affected |
|  | **Symptoms**: List of all effects on body |
|  | **Causes**: Are there environmental or health factors that can be causes?  Can the cancer be inherited? *(Your illustration could focus on just 1 cause)* |
|  | Prevention: What can be done to prevent getting this cancer? |
|  | **Treatments**: Medications? Surgery? Chemotherapy? Radiation?  Nutrition? Lifestyle choices? *(Your illustration could also focus on 1 or more of these)* |
|  | **Diagnosis**: What tests are done? Are scans done with MRI, CAT scan, PET scan, X-ray, or ultrasound machines? |
|  | **Frequency in Population**: More common in a certain group; how common is it? |
|  | **Article**: new information found from research |

Group Names: \_\_\_\_\_\_\_\_\_\_\_ Cancer: \_\_\_\_\_\_\_\_ Grader’s Name: \_\_\_\_\_\_\_\_

**Cancer Presentation Peer Review**

|  |  |  |  |
| --- | --- | --- | --- |
| Presentation Requirements | Earned Points | Possible Points | Comments |
| Introduction   * Name the cancer * Introduce team members |  | 20 |  |
| Definition of the cancer   * What happens to the cells? * What part of the body does it generally affect? |  | 20 |  |
| Description of the symptoms   * List all of the possible effects on the body |  | 10 |  |
| Possible causes of the cancer   * Are there environmental or health factors that can cause the cancer? * Can the cancer be inherited? |  | 20 |  |
| Prevention   * What can be done to prevent getting this cancer? |  | 10 |  |
| How the cancer is treated   * Medications? Surgery? * Chemotherapy? Radiation? * Nutrition? Lifestyle choices? |  | 30 |  |
| How the cancer is diagnosed   * What tests are done? * Are scans done with MRI, CAT scan, PET scan, X-ray, or ultrasound machines? |  | 20 |  |
| How many and what type of people are likely to have the disorder   * Is it more common in a certain group of people? * How common is it? |  | 20 |  |
| Application of research article   * What new information did you learn from your research? |  | 10 |  |
|  |  |  |  |
| **Total Points Earned** |  | **160** |  |

What did you like about their presentation?

What could this group improve on?