



## Cancer Education Project

# Cancer Truth or Cancer Myth Survey

### Overview:

This activity uses a 10-statement “Cancer Truth or Cancer Myth” survey to identify the degree to which students believe the statements about cancer have, or don’t have, scientific validity. Students individually complete the survey, and then collect class data by using Post-It Note Histogram “Topical Barometers”. Each student writes (“draws”) one conclusion based on the class data and creates one question about the data. Teams of two are formed for students to share their conclusions and questions, and the teacher selects a few of the teams to report out to the class. Surveys, conclusions and questions are collected from each student at the end of class.

### Objectives:

As a result of completing the lesson, students will provide evidence that they:

- understand that common beliefs about cancer may be scientifically accurate or may be misconceptions or incomplete understandings about cancer
- can state conclusions from the data on the histograms and ask questions related to student beliefs about cancer truths and cancer myths

### Introduction:

Teachers will introduce the lesson by telling students that they have been asked to participate in a project by biology students from another high school in New York State. The goal of the biology students’ project is to understand teenagers’ beliefs and concerns about cancer. Students at the other high school hope to use the information from their project to design activities that help teenagers better understand the facts about cancer and some new developments in cancer prevention, diagnosis, and treatment. There are no prerequisite concepts or skills that are needed for these two classes.

**Teacher Preparation:**

- Print copies of the *Cancer Truth or Cancer Myth Survey*, one for each student.
- Make the 10 histogram (bar graph) Topical Barometers (See Appendix A).
- Obtain 10, small Post-It notes for each student.

**Lesson Plan Checklist:**

- \_\_\_ 1. Introduce the lesson (see first paragraph of Introduction) – 1 minute
- \_\_\_ 2. Review the *Eagle Valley High School* cover letter, and distribute to each student a copy of the *Cancer Truth or Cancer Myth Survey* – 4 minutes
- \_\_\_ 3. Allow students time to work individually to complete the survey – 8 minutes
- \_\_\_ 4. Allow time for students, in small groups and then as a whole class, to analyze the Truth/Myth Survey class data by using 10 bar graph “Topical Barometers” – 10 minutes
- \_\_\_ 5. Allow time for students to individually write one conclusion and one question from the class data – 5 minutes
- \_\_\_ 6. Pair up students to share their conclusions and questions. Ask students to peer review each other’s conclusions to make sure they are based on the data (and not inferences from the data) – 7 minutes
- \_\_\_ 7. Select some student pairs to report out one conclusion and one question - 3 min.
- \_\_\_ 8. Collect surveys, conclusions, and questions from each student – 2 minutes

## Eagle Valley High School



Dear High School Student,

We are a team of biology students at the Eagle Valley High School who are working with scientists and medical researchers at a local university's medical center on a project to find out what teenagers know about cancer and what concerns teens have about cancer. We designed a survey to gather information from teenagers around New York State to see what they believed about cancer and what they think are important things teenagers should know about cancer.

We are asking for your help with our project. We've designed this survey about peoples' beliefs about cancer, and have asked your teacher to allow class time for you to complete this survey. You will complete this survey today and collect some important class data for us. The information that you provide will be summarized by your teacher and sent back to us. The summary forms your teacher sends will not contain any of your names, so we ask you to be as honest as you can, and to take these activities seriously. Please help us collect good data!

Thank you for your participation. We appreciate your help with our cancer education project.

Sincerely,

The Eagle Valley High School Cancer Education Team

Name \_\_\_\_\_  
 Period \_\_\_\_\_

Teacher \_\_\_\_\_  
 School \_\_\_\_\_

### Cancer Truth or Cancer Myth "Your Belief" Survey

Below is a survey of 10 statements about cancer (A-J). For the purposes of this survey, a cancer "Truth" is defined as a statement that you believe is supported by scientific evidence. A Cancer "Myth" is defined as a statement that you believe is an opinions or an idea that is not supported by scientific evidence.

For each statement, circle the numbers in the "Your Belief" column that best identifies your belief whether each statement is a cancer "truth" or a cancer "myth."

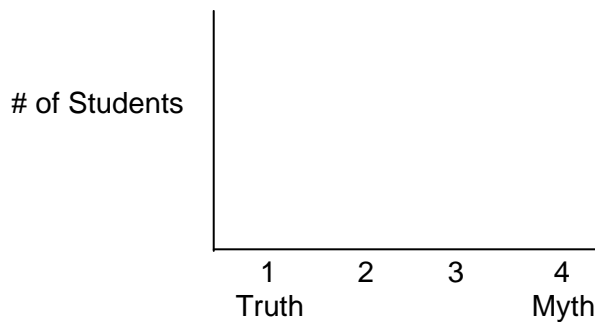
- 1 = I'm sure this is a Cancer Truth.  
 2 = I think this might be a Cancer Truth.  
 3 = I think this might be a Cancer Myth.  
 4 = I'm sure this is a Cancer Myth.

Statements about Cancer	Your Belief			
	Truth			Myth
A. If your parents had cancer, so will you.	1	2	3	4
B. If you find an abnormal lump on your body, it must be cancer.	1	2	3	4
C. It is possible to have cancer without exhibiting any symptoms or warning signs.	1	2	3	4
D. Young peoples' lifestyles affect their chances of getting cancer later in life.	1	2	3	4
E. Cancer that has metastasized (spread throughout the body) is fatal.	1	2	3	4
F. Everyone with the same type of cancer gets the same kind of treatment.	1	2	3	4
G. The only treatments for cancer are surgery, radiation, and chemotherapy.	1	2	3	4
H. Some types of cancer are contagious.	1	2	3	4
I. Cancer patients involved in clinical trials receive the best possible treatment for their cancer.	1	2	3	4
J. Cancer is caused by changes in genetic material.	1	2	3	4

## Appendix A: Bar Graph Topical Barometers

- Use chart paper to make to make 10 bar graphs (“Topical Barometers”). Label each graph as Graph A, Graph B, Graph C..... Graph J, etc., to represent each of the 10 Truth / Myth Statements. Write out the Truth/Myth statements on the top of each graph. Hang the bar graph charts around the room.
- Distribute 10 small Post-It™ notes to each student when the Truth/Myth Survey is passed out.
- Have students put their initials and one letter (A through J) on the Post-It notes and then direct them to complete the survey.
- Each graph should have “# of Students” along the Y-axis and “Truth” and “Myth” numbers along the X-axis. See example below.

**Graph A: If your parents had cancer, so will you.**



Have students create bar graphs (histograms) by placing their Post-It™ note on each of the 10 graphs to represent their belief (1-4) about each of the 10 Truth / Myth statements.