



## LESSON PLAN: Brain Tumours By the Numbers

**Topic:** Brain Tumours statistics

**Subject | Stream:**

Health

Mathematics | Statistics

Science

Vocabulary

**Grade Level:**

Intermediate (7-10)

**Objective(s):**

Examine brain tumour facts and the numbers associated with them.

**Brief Summary:**

Individual or class reading of the “10 Facts About Brain Tumours” PDF. Discussion of terminology and interesting facts. Matching game. Consolidation merging into a math lesson.

**Background Information:**

There are 120 different types of primary brain tumours, and currently 55,000 people living with a brain tumour in Canada and 10,000 newly diagnosed with a brain tumour yearly. Students will examine the statistics and numbers associated with primary brain tumours in Canada.

### 10 Facts About Brain Tumours

1. Every day, 27 Canadians are diagnosed with a primary brain tumour.
2. Brain tumours affect people of all ages, and backgrounds
3. Brain tumours are the leading cause of solid cancer death in children under the age of 20.
4. There are over 120 different types of brain tumours, making effective treatment very complicated.





5. Brain tumours drastically affect physical and cognitive abilities and quality of life.
6. Although as many as 60% of children with brain tumours will survive, they are often left with long-term side effects.
7. Metastatic brain tumours occur at some point in 20-40% of people with cancer.
8. In the first year after diagnosis it is estimated the average patient will make 52 visits to their health care team (could include surgery, radiation, chemotherapy, blood work etc.).
9. In May 2019, the [Brain Tumour Registry of Canada](#) was launched. Accurate data will help researchers understand the disease and improve treatment for those affected.

*See note below under “Lesson Extension Ideas” for more information about the Brain Tumour Registry of Canada.*

10: It is estimated that 55,000 Canadians are surviving with a brain tumour.

**Resources | Materials Required Per Student:**

- Handout: 10 Facts About Brain Tumours
  - More details about these facts can be found here:  
<https://www.braintumour.ca/facing-a-brain-tumour/facts-about-brain-tumours/>
- Handout for Students: By the Numbers Matching Activity
- Handout for Teacher: By the Number Matching Answer Key
- PowerPoint Slide deck to accompany the lesson plan
- Supplementary Resource - Brain Tumour Related Vocabulary Words



**Activity Instructions:**

Step 1: Decide ahead of time if students will review the “10 Facts About Brain Tumours” handout, or if the class will review together.

Step 2: Teacher to clarify terminology students didn’t know.

Step 3: Class discussion about interesting facts from the PDF.

Step 4: Teacher to collect, or have students put the “10 Facts About Brain Tumours” handout away before starting the next part of the lesson.

Step 5: Matching Activity: students are given 2-3 minutes to fill in the blanks with the correct match.

Step 6: Teacher and students to review the correct solutions.

**Lesson Extension Ideas:**

- Consolidation Activity Idea: Incorporate information into a current mathematics lesson / unit to review (i.e.) rates, percent and equivalent fractions can be easily illustrated with the facts given.
- In the PowerPoint slide deck, on slide # 11, there’s a link to the Brain Tumour Registry of Canada where you will find even more statistics about brain tumours in Canada, videos and reports to build upon this lesson plan.

