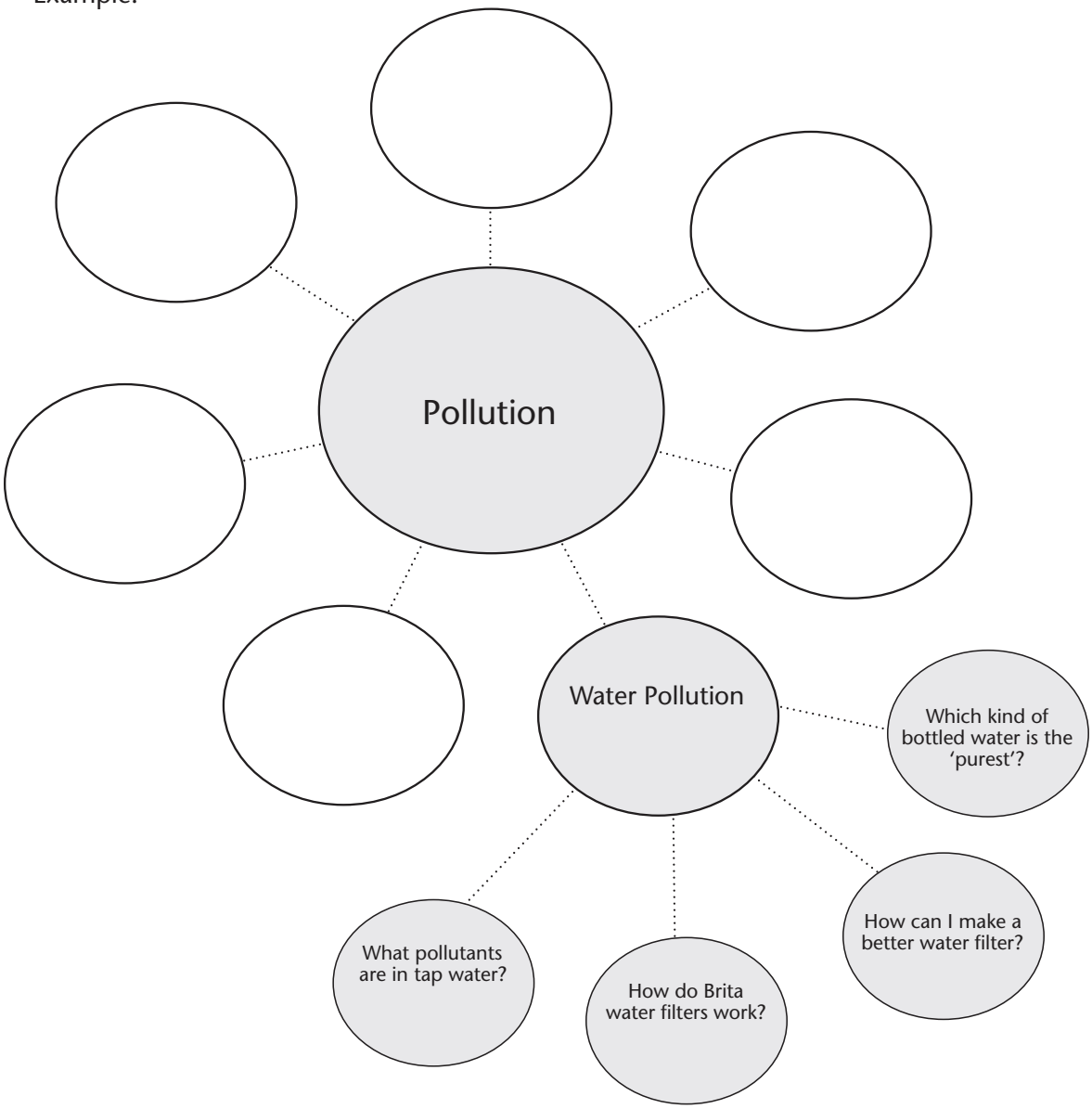
Science Fair Planning
Brainstorming your Ideas

Science begins with the art of observation! Notice what is going on around you. Think about all those times you wondered about something or asked yourself, "what if...?" This is the beginning of the creativity that is involved in science. Let's start by putting your ideas on paper.

Begin with a topic then brainstorm all the words that come to mind when you think of that topic: questions, what you know, what you would like to know. Once you have filled the page with words, sort them as follows:

Write the topic of interest in the middle. Choose more specific topics and write them in the bubbles. For each of these bubbles, form questions.

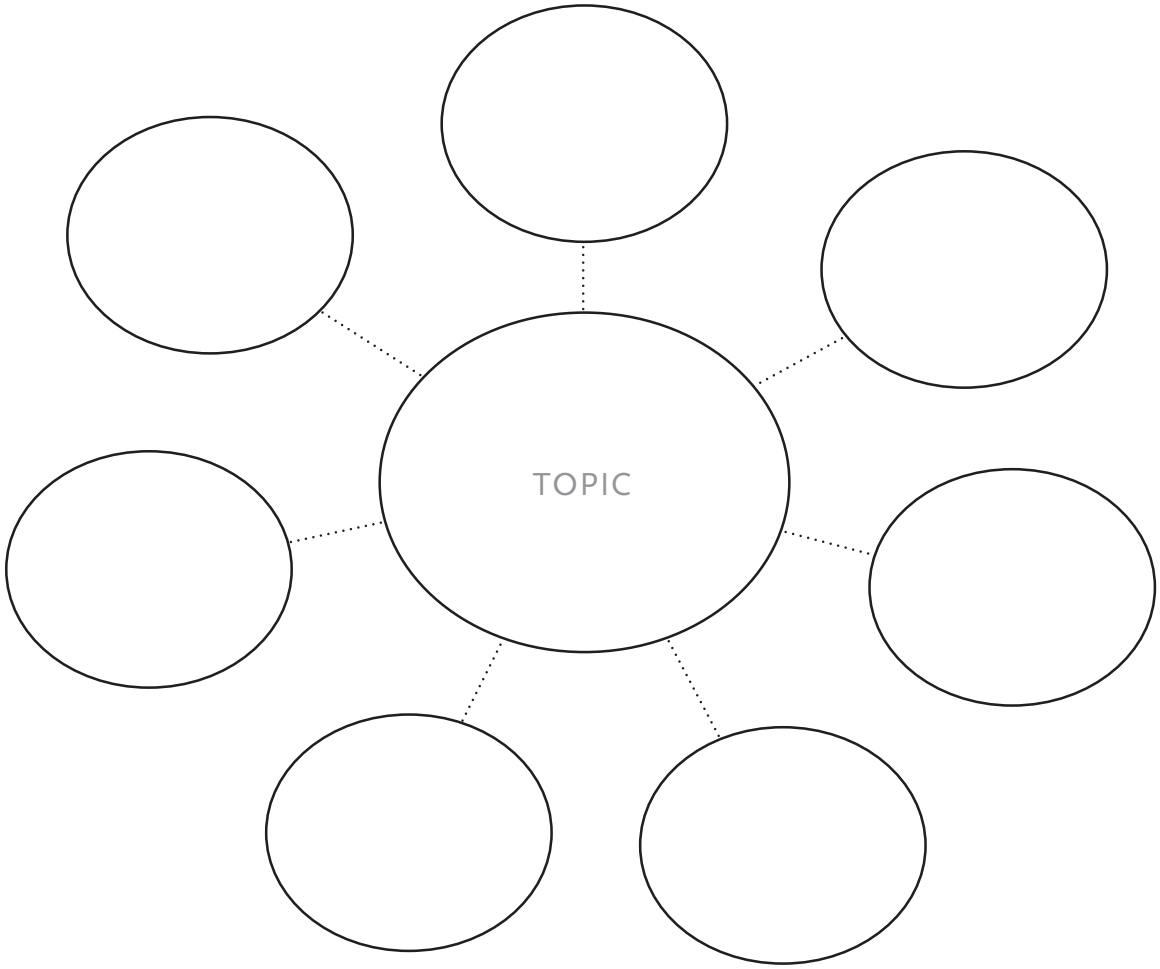
Example:



Science Fair Planning
Brainstorming your Ideas

Name: Date:

Now try brainstorming one of your own topics!



Science Fair Planning
What Type of Project?

Name: Date:

Now that you have your thoughts written down, let's start to organize them.

What is your topic or question?

What do you already know about this topic?

What more would you like to know about this topic?

WHAT TYPE OF PROJECT ARE YOU DOING? (check one)

☐ **Experiment**

Conduct an experiment testing a hypothesis. The process follows the scientific method and involves variables. A common format is: "How does_____ affect_____?"

☐ **Innovation/Technology**

Design and build a model or technique. A common format is: "How can _____ improve the performance of _____?"

☐ **Study**

Research a topic, compare data, and present information and conclusions. A common format may be: "What kind of information exists about _____?" and "What is the relationship between_____and _____?"

What materials do you need to do your project and where can you get them?

What are the keywords you can use while doing research?

Science Fair Planning Experiment

Name: Date:

Let's expand on the planning and write information down into a different format.

Purpose: What are you going to do?

Hypothesis: What do you think will happen?

Materials needed: ☐ ☐

☐ ☐

☐ ☐

☐ ☐

☐ ☐

Procedure: What steps will you take?

Control:

Independent variable:

Dependant variable:

Results:

Science Fair Planning
Innovation/Technology

Name: Date:

Let's expand on the planning and write information down into a different format.

Purpose: What are you going to build and why?

Materials needed: ☐ ☐

☐ ☐

☐ ☐

☐ ☐

☐ ☐

Research: What do you need to know before you start?

Diagram: Draw a labelled diagram of your model.

Testing: How will you test it?

Discussion: How does your model apply to real-world situations?

Science Fair Planning Study

Name: Date:

Let's expand on the planning and write information down into a different format.

What do you already know about this topic?

Purpose: What questions are you planning to address?

Research Plan: List the website, books and other resources you will refer to.

What kind of models and diagrams will you use to support your study?

Display: What key features will you present on your backboard?

Applications: How does your study apply to real world situations?