**Method: Scientific Research/Experiment**

The scientific method is a systematic way of learning and answering questions. There are six standard steps to take:

1. Question
Think of the world around you and find a question which you want to examine.

*e.g. How big is the fine dust pollution caused by different candles?*

1. Research
Conduct background research. Write down your sources so you can cite your references.

*e.g. Find out about legal limits of fine dust pollution and ways of measuring it.*

 *Making your own fine dust sensor:* [*https://luftdaten.info/en/construction-manual/*](https://luftdaten.info/en/construction-manual/)

1. Hypothesis
Develop a hypothesis. This is a sort of guess or model about what you expect.

*e.g.: The fine dust level produced by a candle is less than near a road.*

1. Experiment
Design and perform an experiment to test your hypothesis. One single experiment usually has two variables. You change or control one of the variables and record the effect it has on the other variable.

*e.g.: Vary the length of time a candle burns and measure the fine dust level at the same position in a room.*

1. Data/Analysis
Record observations and analyze what the data means. Often, you'll prepare a table or graph of the data.
2. Conclusion

Conclude whether to accept or reject your hypothesis and if there are any consequences for the world around you.

 7. **Presentation**

How do you want to present the experiment and your results?

 ( demonstration experiment done by the teacher, experiment carried out by students,

 experiment shown as film or on pictures, etc.)

**Further questions:**

**Material:** What do you need for the experiment?

**Age group:** Decide on the age group your experiment is for.

**Safety:** Do you need any safety measures?

