

Creating the context

I ask myself questions

1. What is biofuel?

2. What is a moratorium?

3. What are the economic issues in this case study?

4. What are the environmental issues in this case study?

5. Name an ethical issue raised by this case study.



Name: _____

Group: _____

Creating the context *(continued)*

6. Who are the main players in this case study?

7. What questions should guide you in your information gathering on biofuel production?

I must

8. Reformulate the goal of the case study.



Name: _____

Group: _____

Creating the context *(continued)*

I think

9. Do you think there should be a moratorium on biofuel production?

What I know and what I must find out

10. Write the information you already know and the information you need to find out.

What I know	What I must find out
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Name: _____

Group: _____

Creating the context *(continued)*

I prepare my work

11. Where will you find the information you need to carry out this case study?

12. Define the main steps of the case study in chronological order.

Reflection

Yes No

Do I fully understand what I have to do?

☐☐

Gathering information

I do research

1. What is the lithosphere?

2. a) What are soil horizons?

b) What is soil depletion?

c) What is contamination?

3. a) What are the properties of fertile soil?

b) What is the buffering capacity of a soil?



Gathering information *(continued)*

4. Can producing ethanol biofuel contaminate the lithosphere? If so, explain your answer.

5. What is the hydrosphere?

6. How do fertilizers and pesticides contaminate waterways?

7. What is the atmosphere?

8. How is solar energy distributed around the Earth?

9. a) Define the greenhouse effect.

- b) What are the causes of atmospheric contamination?



Gathering information *(continued)*

c) What is a contaminant?

d) Are pesticides a point source or a non-point source of pollution? Explain your answer.

10. How can biofuel production disrupt biodiversity?

11. a) Define *trophic relationships*.

b) What is the toxicity threshold?

c) Can pesticides cause a phenomenon of bioaccumulation? Explain your answer.



Gathering information *(continued)*

- d) Can pesticides cause a phenomenon of bioconcentration? Explain your answer.

12. Can the use of biofuels be at the root of ecological disturbances? If so, explain your answer.

13. Highlight the information you think is relevant in your information documents. Copy this information in the tables in questions 14 and 15. Distinguish the advantages of biofuel production from its disadvantages.

I apply my research results

14. What are the advantages of producing biofuels? Copy your information in the table below.

Advantages of biofuel production



Gathering information *(continued)*

Advantages of biofuel production *(continued)*

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Completing the case study

I make suggestions

After completing your research, write your letter to the Prime Minister. Remember to present your arguments and cite your sources.

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Completing the case study *(continued)*

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Reflection

Have I considered other approaches?

Yes

No

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□

Validating the case study

I justify my approach

1. What information sources did you use to prepare your arguments? Make sure you cite them correctly.

2. Do you think your sources are reliable? Justify your answer.

3. Name at least one disadvantage of the position you have defended in your letter.
