

HyTEC Curriculum Survey

HyTEC Unit Survey

*** 1. Please enter your name:**

*** 2. Please enter your school name:**

*** 3. Please enter your school district name:**

*** 4. To how many students did you teach the HyTEC curriculum?**

*** 5. Please briefly describe the course in which you taught the HyTEC curriculum: (e.g., Physics, Physical Science, Chemistry; AP, IB, conceptual, calculus-based, etc.)**

*** 6. How many class periods did it take to complete the entire unit?**

*** 7. How long are your class periods (in minutes)?**

*** 8. What grade level were the students who participated in this course? (check all that apply)**

Freshmen

Sophomore

Junior

Senior

Other (please specify)

Other:

*** 9. What were the major conceptual understandings that your students learned from this unit?**

HyTEC Curriculum Survey

* 10. How would you rate the student engagement with the energy issues in this unit?

- Very engaged
- Engaged most of the time
- Engaged about half of the time
- A little engaged at times
- Not at all engaged

Please comment on student engagement with issues.

* 11. Compared to other science units you typically use, student engagement with this unit was:

- a lot more
- more
- about the same
- less
- a lot less

* 12. How well did this unit work for the following groups of students?

	very well	well	fairly well	a little	not at all	not applicable
English language learners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
High-achieving students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Low-achieving students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please comment on student learning for the groups of students listed above.

* 13. Would you use this unit again?

- Yes, I would use it as is
- Yes, but only with a few changes
- Yes, but only with major changes
- No

Please explain your answer to the previous question.

* 14. What are your top three recommendations for improving the HyTEC curriculum?

Recommendation #1

Recommendation #2

Recommendation #3

HyTEC Curriculum Survey

15. Please comment on anything else you would like us to know about this unit (you will have more opportunities to comment on the individual activities later in this survey).

HyTEC Curriculum Survey

Activity 1: Hydrogen for Transportation?

*** 1. Did you teach this activity?**

Yes

No

2. If you answered NO to Question 1, why didn't you teach the activity? Please be specific.

3. If you answered YES to Question 1, how many class periods did you spend on Activity 1?

*** 4. What were the major conceptual understandings that your students learned from this activity?**

5. What (if any) were the major conceptual areas that were difficult for your students to learn from this activity?

*** 6. Did you modify any part of the activity?**

Yes

No

If you answered YES, what did you modify, and why?

*** 7. Would you use Activity 1 again?**

Yes, I would use it as is

Yes, but only with a few changes

Yes, but only with major changes

No

Please explain your answer to this question.

*** 8. What are your recommendations for improving this activity?**

HyTEC Curriculum Survey

9. Please comment on anything else you would like us to know about this activity or any ideas you have about how it should be revised.

HyTEC Curriculum Survey

Activity 2: Obtaining Hydrogen Through Electrolysis

*** 1. Did you teach this activity?**

Yes

No

2. If you answered NO to Question 1, why didn't you teach the activity? Please be specific.

3. If you answered YES to Question 1, how many class periods did you spend on Activity 2?

*** 4. Were the kit materials adequate for this activity?**

Yes

No

If you answered NO, how can the kit materials be improved?

*** 5. What were the major conceptual understandings that your students learned from this activity?**

6. What (if any) were the major conceptual areas that were difficult for your students to learn from this activity?

*** 7. Did you modify any part of the activity?**

Yes

No

If you answered YES, what did you modify, and why?

HyTEC Curriculum Survey

* 8. Would you use Activity 2 again?

- Yes, I would use it as is
- Yes, but only with a few changes
- Yes, but only with major changes
- No

Please explain your answer to this question.

* 9. What are your recommendations for improving this activity?

10. Please comment on anything else you would like us to know about this activity or any ideas you have about how it should be revised.

HyTEC Curriculum Survey

Activity 3: Observing a Fuel Cell

*** 1. Did you teach this activity?**

Yes

No

2. If you answered NO to Question 1, why didn't you teach the activity? Please be specific.

3. If you answered YES to Question 1, how many class periods did you spend on Activity 3?

*** 4. Were the kit materials adequate for this activity?**

Yes

No

If you answered NO, how can the kit materials be improved?

*** 5. What were the major conceptual understandings that your students learned from this activity?**

6. What (if any) were the major conceptual areas that were difficult for your students to learn from this activity?

*** 7. Did you modify any part of the activity?**

Yes

No

If you answered YES, what did you modify, and why?

HyTEC Curriculum Survey

* 8. Would you use Activity 3 again?

- Yes, I would use it as is
- Yes, but only with a few changes
- Yes, but only with major changes
- No

Please explain your answer to this question.

* 9. What are your recommendations for improving this activity?

10. Please comment on anything else you would like us to know about this activity or any ideas you have about how it should be revised.

HyTEC Curriculum Survey

Activity 4: Modeling the Fuel Cell Reaction

*** 1. Did you teach this activity?**

Yes

No

2. If you answered NO to Question 1, why didn't you teach the activity? Please be specific.

3. If you answered YES to Question 1, how many class periods did you spend on Activity 4?

*** 4. Did you use the HyTEC website and online simulation for this activity?**

Yes

No

5. If you answered NO to Question 4, please explain.

6. If you answered YES to Question 4, please let us know if you have any recommendations for improving the HyTEC website.

*** 7. What were the major conceptual understandings that your students learned from this activity?**

8. What (if any) were the major conceptual areas that were difficult for your students to learn from this activity?

*** 9. Did you modify any part of the activity?**

Yes

No

If you answered YES, what did you modify, and why?

HyTEC Curriculum Survey

* 10. Would you use Activity 4 again?

- Yes, I would use it as is
- Yes, but only with a few changes
- Yes, but only with major changes
- No

Please explain your answer to this question.

* 11. What are your recommendations for improving this activity?

12. Please comment on anything else you would like us to know about this activity or any ideas you have about how it should be revised.

HyTEC Curriculum Survey

Activity 5: Fuel Cell Efficiency

*** 1. Did you teach this activity?**

Yes

No

2. If you answered NO to Question 1, why didn't you teach the activity? Please be specific.

3. If you answered YES to Question 1, how many class periods did you spend on Activity 5?

*** 4. Were the kit materials adequate for this activity?**

Yes

No

If you answered NO, how can the kit materials be improved?

*** 5. What were the major conceptual understandings that your students learned from this activity?**

6. What (if any) were the major conceptual areas that were difficult for your students to learn from this activity?

*** 7. Did you modify any part of the activity?**

Yes

No

If you answered YES, what did you modify, and why?

HyTEC Curriculum Survey

* 8. Would you use Activity 5 again?

- Yes, I would use it as is
- Yes, but only with a few changes
- Yes, but only with major changes
- No

Please explain your answer to this question.

* 9. What are your recommendations for improving this activity?

10. Please comment on anything else you would like us to know about this activity or any ideas you have about how it should be revised.

HyTEC Curriculum Survey

Activity 6: Hydrogen for Buses?

*** 1. Did you teach this activity?**

Yes

No

2. If you answered NO to Question 1, why didn't you teach the activity? Please be specific.

3. If you answered YES to Question 1, how many class periods did you spend on Activity 6?

*** 4. What were the major conceptual understandings that your students learned from this activity?**

5. What (if any) were the major conceptual areas that were difficult for your students to learn from this activity?

*** 6. Did you modify any part of the activity?**

Yes

No

If you answered YES, what did you modify, and why?

*** 7. Would you use Activity 6 again?**

Yes, I would use it as is

Yes, but only with a few changes

Yes, but only with major changes

No

Please explain your answer to this question.

*** 8. What are your recommendations for improving this activity?**

HyTEC Curriculum Survey

9. Please comment on anything else you would like us to know about this activity or any ideas you have about how it should be revised.