

ETP: Self-Propelled Vehicle Business Proposals

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Grade Level: 6

Subject Area: English Language Arts

Length of Time To Complete: ten class periods (approx.)

Abstract

This lesson is designed to simulate the group work and the business proposal composition that I have observed to be regular activities at Lockheed Martin Corporation. To be successful, the students must: communicate effectively, first with one another in their teams, and then in writing to their customer; design a good product, keeping the customer's needs in mind at all times; and write clearly in order to effectively present their business proposal to the customer. The "customer", in this case, is the teacher and the fellow classmates who are on opposing teams. The product that each team will design is a self-propelled vehicle. As the emphasis of this lesson is on the group work and the writing, the vehicle will be designed on paper only, not in 3-D, and the specifications will be written as a part of the business proposal. The possible science and engineering aspects of this activity will not be emphasized. As I teach Writers Workshop in my classroom, I have incorporated some elements of it into this lesson, but the lesson could certainly be adapted to meet the needs of any teacher's writing program.

Objectives

TSW work with others on a team to design a self-propelled vehicle that fellow classmates would want to buy.

TSW co-compose a business proposal for their vehicle, using the guidelines given in the Lockheed Martin "Value Proposition" class. The business proposal falls under the genre of "Persuasive Writing" in English Language Arts.

TSW evaluate each of their team members, at completion of project, according to a set of criteria on a teacher-created scorecard.

Procedure

Day One: Do a whole-class lesson on self-propelled vehicles. Ask students to think about what kind of self-propelled vehicle kids currently use to get themselves to school each day (skateboards, bikes, scooters, etc...). Then ask them to think of ways to make these vehicles *better* – "What could you add to one of these vehicles to

make it so everyone would want to buy it?" Send students to their desks to list possible characteristics and/or designs of cool self-propelled vehicles in their Writers Notebooks. Share out ideas at end of period.

Day Two: Refer to yesterday's lesson and discuss some vehicle ideas that worked, and maybe some that didn't. Then tell students that they will be working in small teams to design a self-propelled vehicle together, and that they will need to write a business proposal that describes their vehicle and that makes the "customer" (their fellow classmates) want to buy it. Ask students to think about what they think they will need to do to be successful; some possible ideas are: listen to others' ideas, take turns talking, think creatively, etc...Then show them the poster of the Value Proposition Guiding Questions, letting them know that these are guiding questions used by adults in the business world when they design products and write business proposals to sell their products to their customers. Model using the guiding questions while thinking aloud about a self-propelled vehicle. Put students into their teams and allow them to get together and discuss their design ideas informally. Remind them that they are now competing against other groups, so they should keep their ideas confidential within the team.

Day Three: Refer to yesterday's activities and ask students to think about some guidelines they would suggest to ensure that the team works well together – "What does an efficient and effective team look like when they're working together? What rules might such a team have to ensure that work gets done and each member is on-task? What are some possible problems that you as an individual experience when you're working as part of a team?" etc...As a whole class, create a list of guidelines for working together as a team. Post.

Allow students to get back into their teams, and pass out their instructional handbooks. Review the handbooks with them page by page. Students should then begin working.

Days Four and Five: Students continue to work in groups, using the instructional handbook as their guide. By the end of Day Five, they must have a finished drawing of their vehicle and a written response to each of the Value Proposition Guiding Questions. Circulate and conference with every group everyday.

Days Six and Seven: Model turning the information that students already have into a written business proposal in paragraph form. Students write. Circulate and conference with every group everyday.

Days Eight and Nine: Model editing business proposals. Students edit. Circulate and conference with every group everyday.

Days Nine: Model making the completed proposal look ready to publish. Students work.

Day Ten: Students publish. Each proposal is set out for review, and students circulate around the room (you may want to stagger this) and decide which vehicle, other than their own, they would want to buy. They then give their confidential vote to the teacher to tally. Announce the winning proposal at the end of the period. On this day, students also complete a Team Member Scorecard for each of their fellow team members and turn in to teacher.

Follow –Up Activities (optional)

Now that students have received instruction in writing business proposals, the teacher can assign them in the future, particularly as extra-curricular work for GATE students or as extra-credit. Make sure that an audience is already established when giving the assignment.

Assessment

Fifty percent of student's grade is based on Business Proposal Rubric score.

Fifty percent of student's grade is based on cumulative results of Team Member Scorecards.

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Value Proposition Guiding Questions

Use these questions to guide your thinking. Write an answer to each question by _____ (date).

1. Who are the intended customers? What do you know about their needs and desires when it comes to a self-propelled vehicle?
2. What experiences of value would these target customers receive were they to buy your vehicle?
3. What are the trade-offs? (i.e. what does a skateboard offer that your vehicle does not offer?)
4. What experiences are equal to the alternatives (skateboards, bikes, scooters, etc...) out there?
5. What price must they pay to get these experiences? How does this price compare to alternative's prices?

Self-Propelled Vehicle Design and Specifications

Draw the final version of your vehicle here. Write the specifications below.
This must be completed by _____.

Instructions

1. 1. Decide who in your team will fulfill each of the following roles:

Product Manager: _____

This person will make the final decisions on vehicle design and specifications. This person should listen to and incorporate other team members' ideas as much as possible.

Graphic Artist: _____

This person should be a good artist. This person must do the final drawing of the vehicle (the one your customers will see). This person must write the specifications as well.

Editor: _____

This person should have good spelling, grammar, and dictionary skills. This person must make all final decisions regarding the text of the business proposal.

Competitive Analyst: _____

This person should have good research skills. This person must research the specifications and prices of alternative vehicles so that the team can consider what their competition is when designing their vehicle.

If there are more than four team members, two people can do the same role. Write both of their names on the line above.

2. 2. Review the Value Proposition Guiding Questions and start discussing them.
3. 3. Design your vehicle. Notice when it must be completed.
4. 4. After the teacher has approved your design and your responses to the guiding questions, you may start to write your value proposition in paragraph form. The teacher will be doing some whole-class mini-

lessons on how to do this. Divide the work up into paragraphs, i.e. have the competitive analyst write a paragraph about the benefits of your vehicle as opposed to the alternatives. Use the rubric to guide your writing.

5. 5. Your completed business proposal is due on _____.

6. 6. Complete a Team Member Scorecard for each of your fellow team members. The teacher will provide these for you when the time comes.

Business Proposal Rubric

	4	3	2	1
Persuasiveness	Proposal is very persuasive. It describes experiences of value in detail. It is relevant to the customer. Reasons for trade-offs are given.			Proposal is not persuasive due to lack of clear description of experiences of value or lack of relevancy to customer.
Mechanics and Style	Less than three spelling and grammar errors in text. Writing sounds good. Vocabulary is rich and varied.			Spelling and grammar errors are many and interfere with making sense of text. Vocabulary is dull or incorrect.
Competitive Analysis	Specifications of alternative vehicles are presented and analyzed in comparison to your vehicle's specs and price.			No competitive analysis is included.
Design	Self-propelled vehicle design is logical and original. Drawing looks very clean and clear. Options are described.			Design is illogical and/or silly and/or not original.
Effort	Team appeared to work very hard. Team followed directions. Team's overall behavior was on-task and did not interfere with getting work done. Team communicated well.			Team did not complete tasks. Team did not follow directions. Team's overall behavior was disruptive.

Team Member Scorecard

Your Name _____

Team Member's Name _____

The results of this scorecard will be kept anonymous.

Please grade your team member using these numbers:

4 = very well

3 = good

2 = not so good

1 = very poor

Please grade your team member according to the following criteria:

1. How well did this team member complete his/her tasks? ____
2. How well did this team member behave and stay on task? ____
3. How well did this team member communicate and listen to others' ideas? ____