

English

ELECTRIC! Assignment

MPTA English 12

Grade 12

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Lesson Overview:

Each student is an employee of a five-person company bidding on a job wiring a new single-family home. Due to current conditions in the construction industry, new home starts are at record lows and it is a VERY competitive environment. Profit margins are razor thin, and at least five other companies are bidding on the same job. Only one company will get the contract (extra-credit points and a catered banquet dinner).

Materials Included in this Lesson:

- Commonly used symbols sheet
- “Take-away” wiring plan for Woodside Homes
Bella Brisas Plan 3550 home
- Symbols/parts/labor sheet
- Bid and contract form
- Sample bid proposal document

Other Materials for this Lesson:

- Rayco slide show

Skills the Students will Learn:

- students will learn to work collaboratively to select a company name, design and produce a company logo
- students will learn what is involved in the rough and finish stages of wiring a new home
- students will learn to interpret a “take-away” house wiring plan
- students will learn how to fill out a bid-and-contract-form listing all materials needed for a single-family house wiring plan
- Students will learn how to estimate, write, and present a bid proposal for wiring a new single-family home

Student Deliverables:

- Company name and logo
- Completed bid and contract form
- Bid proposal document

Builder: BryantBuilt Homes

Development: Fauxwood Vista Estates

Home: Bella Gio Plan 1313 (3-bedroom, 2 bath 1443 sq ft)

Length of Lesson: 6 Days

Activity Day 1—Bryant gives slideshow and talk about his summer externship at Rayco Electric Inc. and 5-person companies are formed

Activity Day 2—Guest speakers Rayco president Ray Alvarado and estimator/IT manager John Crapuchettes will teach a lesson on the estimating process.

Activities Day 3 and 4—Using information from Ray and John (including wiring-plan, symbols/parts/labor sheet, and Bid and Contract form) companies do take-aways and work up the numbers for a bid.

Activities Day 5 and homework—Design company name and logo, write, proof, edit bid proposals.

Activities Day 6—Present bid proposals in person to Ray Alvarado.

Enrichment Suggestions:

--Students create their own “dream house” floor-plan, draw a wiring plan for it, and do an estimate of the cost of wiring the home

Student Resources:

- Commonly used symbols sheet
- “Take-away” wiring plan for Woodside Homes Bella Brisas Plan 3550 home
- Symbols/parts/labor sheet
- Bid and contract form
- Sample bid proposal document

Foundation Academic Standards:

--2.2 Writing

- (1.6) Develop presentations by using clear research questions and creative and critical research strategies
- (1.7) Use systematic strategies to organize and record information

- (2.5) Write job applications and resumes
 - a. Provide clear and purposeful information and address the intended audience appropriately
 - b. Use varied levels, patterns, and types of language to achieve intended effects and aid comprehension
 - c. Modify the tone to fit the purpose and audience
 - d. Follow the conventional style for that type of document

CTE Pathway Standards:

--D1.0 Students understand and apply measurement systems in the planning and layout process used in the residential construction industry:

- D1.2—Calculate required materials for residential construction applications

--D4.0 students understand project management procedures and processes as they occur in a construction project:

- D4.2—Understand how to estimate materials from blueprints and specifications

--D6.0 Students understand the impact of financial, technical, environmental, and labor trends on the past and future of the construction industry:

- D6.2—Understand the processes and materials appropriate to the architectural design and residential construction

--D7.0 Students understand the impact of financial, technical, environmental, and labor trends on the past and future of the construction industry:

- D7.2—Develop financial plans for construction projects

Lesson Plan Relevance to Externship:

Based upon what I learned from Ray Alvarado at Rayco Electric, I concluded that the bid process is the heart of his business. If the bid is not done well, either his company won't get the job, or will get the job and wish later that it did not—because it lost money doing the job. The bid process requires a thorough knowledge of every aspect of the business.