

# If I go to the Fair... then I will have fun!

*A Real World Look at "If, Then" Statements*

**CARS, CRAFTS  
AND COMMERCE**

**QUEST 03  
GEOMETRY**

**STATE FAIR OF TEXAS  
CURRICULUM**

**Commerce has always been an important part of the State Fair of Texas. You will be interviewing vendors at the Fair and translating their answers into "if, then" statements. See how closely Geometry relates to real-world scenarios...you might just surprise yourself!**



**During this Cars, Crafts, & Commerce Quest, you will:**

- ★ Write 5 questions related to the Fair, whose answers can be written as "if, then" statements.
- ★ Identify the hypothesis and conclusion for each statement.
- ★ Write the converse, inverse and contrapositive of each statement.
- ★ Decide if the converse, inverse and contrapositive of each statement are true or false.
- ★ Design an art diptych that aligns with one of the "if, then" statements you settled on.
- ★ Compose five poems: one for each vendor experience.



## **Standards**

- ★ Math (Geometry) TEKS: G1A, G1F, G1G, G4B
- ★ Art TEKS: Art I: 1A, 1D, 2D, 2F; Art II: 1A, 1D, 2F
- ★ ELAR TEKS: E2(14)(B)
- ★ Career Development TEKS: PS1G, PS1H, PS5C



**Before You Go - 10 min prep time, 30 teaching time**  
**Make sure your students are comfortable with the following terms and concepts:**

- ★ Writing conditional statements.
- ★ Identifying the hypothesis and conclusion.
- ★ Writing the converse, inverse and contrapositive.
- ★ Deciding whether the converse, inverse and contrapositive are true or false.

**Then, as a class or individually:**

- ★ Write 5 questions that you can ask vendors at the Fair that can be written as "if, then" statements.

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## STATE FAIR MAP



### Optional Materials to Bring

- ★ Pen or Pencil
- ★ List of questions
- ★ Notebook or Paper
- ★ Smartphone or Tablet



### Invitation

★ You are invited to explore the State Fair of Texas to take a real world look at "if, then" statements! Follow the route, bring the materials listed, and use the instructions below.



### Plan Your Route

- ★ Begin at the Embarcadero Building.
- ★ Choose a vendor to interview.
- ★ Then, move to 4 other buildings or vendors of your choice.



### While You're There

The objective of your visit is to interview 5 vendors in 5 different buildings.

★ **IF I GO TO THE FAIR... THEN I WILL HAVE FUN:** Interview vendors at the Fair.

- o Begin at the Embarcadero Building
  - ☐ Select a vendor in this building.
  - ☐ Ask this vendor one of your questions.
  - ☐ Record the answer and the building name.
- o Move to a different building
  - ☐ Select a vendor in this building.
  - ☐ Ask this vendor a different question.
  - ☐ Record the answer and the building name.
- o Do this 3 more times, asking each vendor from a different building a different question.
- o You should end up asking the five questions you wrote in class.

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## After the Fair – 50 min project

When you return to class following your State Fair visit, you will write each question and answer as an “if, then” statement.

- ★ Identify the hypothesis and conclusion for each statement.
- ★ Write the converse, inverse and contrapositive of each statement.
- ★ State whether the converse, inverse and contrapositive of each statement are true or false.



## ART PORTION



Diptych by Richard Vantielcke.

Source: <http://ih0.redbubble.net/image.7872597.3764/flat,1000x1000,075,f.jpg>

Now, turn one of those “if, then” statements into a fun diptych.

- ★ A diptych is simply a series of 2 artworks that have some sort of relationship to one another.
  - They can be different sizes/shapes/colors, etc., but they must relate to one another in some way.
  - One of these relationships could be a story, just as in your “if, then” statement!
  - For example, if you took the one given to you in your geometry lesson, “If I go the Fair, then I will have fun,” you would do:
    - ☐ Your first artwork based on going to the Fair, and...
    - ☐ Your second of you having fun.
- ★ Don't tell anyone what your “if, then” statement is that you are working from.
- ★ When you finish your work, see if your peers can guess what your statement is!
- ★ The medium is up to you, but for clarity, abstract work would probably not be the best choice for this project.
- ★ Your art needs to be representational, whether in a 2D or 3D medium.

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## **ENGLISH PORTION**

Turn your "if, then" statements into poetry.

★You should have five poems (one for each question).

- o Each poem should contain the original question, vendor's answer, converse, inverse, contrapositive, and your answer for each statement.
- o Before each answer you will write the question, which will structure your poem using the literary element of repetition to emphasize your answers.
- o Your poems should look like the following:
  1. Question
  2. Vendor answer
  3. Question
  4. Converse
  5. Question
  6. Inverse
  7. Question
  8. Contrapositive
  9. Question
  10. Your answer