Subject: Variable **Grade Level:** 6th ï 8th

Unit Title: Panhandle Plains Historical Museum Visit

Lesson Title: Windmills In The West

Approximate Time frame: 30 ï 50 minutes dependent upon student ability.

Key Understanding(s):

Reading a caption develops a better understanding of artifacts, photographs and pictures.

Guiding Questions for Key Understanding(s):
Does a photograph tell a story? How much of a story is told through a photo?

Can a photo become more interesting when more of the story is told?

Performance Indicator(s):

Completed Crossword Puzzle *Windmills in the West*
Bio Poem

Vocabulary of Instruction:

Placards
Artifacts

Materials/Resources:

Crossword Puzzle *Windmills in the West*
Bio Poem on the Windmill

Advanced Preparation:
Review *Museum Etiquette* with the students
Copies for each student of crossword puzzle *Windmills in the West*
Copies for each student *Bio Poem Outline* & *Bio Poem Rubric*
Writing Utensils

Instructional Procedure:

- **FOCUS** ï As you stand in Pioneer Hall direct the students to the WEST wall (towards the gift shop) where the Rhino Skeleton is displayed. Have the students gather around the glass case. Ask them what is in the case; encourage them NOT TO READ the placards. There are a few artifacts within the case but there are two rather large blobs and one rock on the northern end. They should not have a clue as to what these three artifacts are. Inform them that WHEN they read the placards they will find that two of them are prehistoric animal teeth and the rock at the southern end is a meteorite.
- You should ask the students the *Guiding Questions* encouraging them to see the benefits of reading the placards and not just rushing through a museum looking at unknown artifacts.
- **EXPLAIN**ï That each student or groups of two students will be given a crossword puzzle to complete using placards, photos, and artifacts within the Windmill exhibit. (Receptionist will point you to the exhibit or follow the map in the brochure.)
- **EXPLORE** ï They are to remain in this exhibit carefully reading all the placards and viewing the photos and artifacts in order to complete the puzzle.
- **CLOSURE** ï Ask students to discuss:
    - What they learned from the Windmill Exhibit.
    - The most surprising thing they discovered in the Windmill exhibit.
    - What would be cool about having a Windmill in their yard?
    - Would they like to depend on a Windmill for all their water needs?

EVALUATE ï When the students return to school pass out the *Bio Poem Rubric* and the *Bio Poem*. Have them complete the *Bio poem* for a windmill.

Special Needs Adaptation: Allow these students to learn at their pace. If possible allow them to work with other students, if not, allow them to share what they see and understand, read placards to them pointing out significant and interesting information.

GT Adaptation: Discuss the possibilities of wind turbines in the future; how will it change life in the Panhandle?