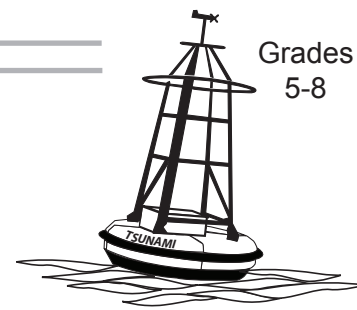


# How Is This Structure Used? \_\_\_\_\_

Grades  
5-8



## Overview:

Students recognize structures in their community on an aerial map. They make additions/corrections to show which structures exist or no longer exist on the map.

## Targeted Alaska Standards:

### *Geography*

[A1] The student who meets this content standard should use maps and globes to locate places and regions

## Objectives:

The student will:

- identify structures on an aerial photo of their community; and
- edit the aerial photo to make it current and up to date

## Materials:

- Red and blue markers
- Aerial maps of the community
- STUDENT WORKSHEET: "Community Zone Data Sheet"
- STUDENT INFORMATION SHEET: "ATEP Land Use Codes"

## Activity Preparation:

Have the aerial maps and student worksheets copied and ready for students to use.

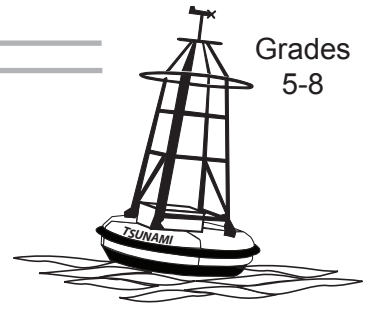
## Activity Procedure:

1. Explain to students that they will be identifying all of the structures in their community. Inform them that the information they gather will be shared with borough or community government agencies.
2. Distribute and explain the STUDENT INFORMATION SHEET: "ATEP Land Use Codes."
3. Divide the class into small groups and hand out the aerial maps of the community.
4. Explain the maps. There will be one map with all the zones on it. There will be several other maps that will have individual zones on them. On the maps, yellow circles containing labels such as A1, B10, C20 and D5 identify structures.
5. The task of the small group will be to identify all of the structures shown in their assigned zone(s).
6. Assign students to the zone(s) they will be identifying.
7. Have students complete the community zone data sheet that corresponds with their assigned zone(s) using the aerial map in the classroom. Structures that cannot be identified by using the map will have to be identified by students going out into the community to observe the structures.
8. As students complete the task, they will probably find structures that do not exist any longer or that are new to the community. They should add this information to the aerial photo by making a red square if the structure is gone and blue triangle if it is a new structure. They should also add this new information to the data sheet.

9. The teacher should collect all completed aerial maps and data sheets and return them to the Geophysical Institute.
10. The Geophysical Institute will send the compiled data to the borough or community government office.

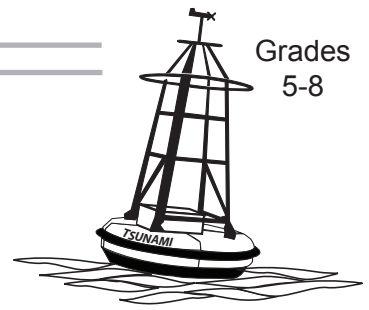
Critical Thinking:

**Discussion Method:** Ask each student to write a paragraph about why borough or community officials would want to know about which structures exist and their use to help them with hazard preparedness.



### ATEP Land Use Codes

- 1. Residential**
  - a. lived-in structure
  - b. out buildings (sheds, garages, not occupied, but currently used by people living on property)
  
- 2. Commercial**
  
- 3. Residential and Commercial**
  
- 4. Temporary Lodging**
  - a. hotel or motel
  - b. hostel
  - c. shelter or rescue mission
  - d. other \_\_\_\_\_
  
- 5. Community Services**
  - a. medical services (clinic, etc.)
  - b. safety services (police, fire, etc.)
  - c. shelters (tsunami, etc.)
  - d. social center (meal hall, bingo, etc.)
  - e. community playground or athletic fields, not associated with school
  - f. other \_\_\_\_\_
  
- 6. Places of Reverence/ Worship**
  - a. spiritual or religious structure
  - b. cemetery
  - c. area of cultural significance
  - d. other \_\_\_\_\_
  
- 7. Education**
  - a. school classroom building
  - b. school gymnasium (indoors)
  - c. school playground/ outdoor athletic fields
  - d. research facility (university or other)
  - e. research equipment (seismometers, experiments, etc.)
  - f. school / university Administration Building
  - g. childcare / daycare
  - h. other \_\_\_\_\_



### 8. Government

- a. municipal (town office, building for local government)
- b. Post Office
- c. agency (Fish and Game, National Park Service, etc.)
- d. military operations
- e. other \_\_\_\_\_

### 9. Industrial

- a. extraction / mining / gravel pits
- b. wood / forestry
- c. fishing industry (cannery, processing)
- d. other \_\_\_\_\_

### 10. Utilities/ Community Infrastructure

- a. drinking water storage
- b. fuel tanks / storage
- c. waste water treatment
- d. electric generation
- e. communications (phone services, satellite, etc.)
- f. dump / trash area
- g. community warehouse/ storage
- h. other \_\_\_\_\_

### 11. Transportation

- a. aviation (airstrips, hangars, aviation fuel, etc.)
- b. shipping (marinas / docks)
- c. bridges
- d. structure storing road equipment
- e. other \_\_\_\_\_

### 12. Agricultural

- a. structure housing animals
- b. structure containing agricultural equipment
- c. structure housing/ growing plants
- d. other \_\_\_\_\_

### 13. Special Case Structures

- a. seasonal camp, such as fish camp or hunting camp
- b. abandoned structure
- c. structure under construction
- d. no structure exists, but air photo marked structure
- e. unknown structure
- f. other \_\_\_\_\_

