



## **Land-Use Categories** (adapted from CAP LTER, MAG, and Explorations from an Aerial Perspective)

### **Residential**

Single-family home: small rectangular buildings with driveways aligned to street  
Single-family home large lot: small rectangular buildings on large lots (less housing density than single family homes)  
Multi-family (apartments/townhomes): multi-storied buildings, off street parking

### **Commercial/Industrial**

Businesses: rectangular buildings, larger than houses, grouped along major streets  
Shopping Malls: large, flat-roofed buildings, large parking areas  
Manufacturing: large flat-roofed buildings with loading docks, possibly with loading docks, piles of raw materials or smokestacks  
Mining: most commonly gravel pits associated with waterways

### **Open Space**

Golf Courses: presence of sand traps, grass, small ponds  
Neighborhood Parks: vegetated areas, lawns, ball fields, playground, tennis courts  
Vacant: surrounded by development  
Desert Parks/Land : desert vegetation, washes, different elevations

### **Institutional**

Schools: large rectangular buildings, adjacent to fields, athletic track  
Church: rectangular building, parking lots, along major streets, may see steeple

### **Water**

Canals: linear water ways  
Lakes/Ponds: small bodies of water (lakes in residential developments/parks)  
Reservoirs: large bodies of water (Tempe Town Lake)

### **Agriculture**

Cropland/Pasture: rectangular fields, machinery, fences  
Orchards: rectangular fields with trees

### **Transportation**

Highway: limited access multi-lane roads  
Major Road: multi-lane roads, typically lined with businesses, churches, shopping centers  
City Streets: two-lane, dense rectilinear grid patten with residential development  
Railroads: linear, passenger and freight lines

## Intersection: *Pinnacle Peak and Dobson*

### Directions:

1. Write a **description** of the site in **1970**
2. Fill in the **land use chart** using the **grid** feature
  - a. Count the number of squares covered for each category.
  - b. You can either use fractions or round to whole numbers to determine coverage. Decide as a class.
3. Make a prediction for the site in the **Predict** area of the Descriptions and Predictions Chart and on the **Land Use Chart**.
4. Go through the activity and make your predictions. Once the site is covered, use the **grid** feature once to fill in the **Land Use Chart**.
5. Lastly, complete the **Reflect** area of the Descriptions and Predictions Chart.
6. Follow the same process for the remaining three areas and answer the discussion questions.

### DESCRIPTIONS AND PREDICTIONS

1	<b>1970:</b> Write a brief description of land use for this area
3	<b>Predict:</b> How do you think this area will change? Why?
6	<b>2000:</b> Write a brief description of land use for this area
7	<b>Reflect:</b> How did the actual change compare with your prediction?

### LAND USE CHART

Complete by counting the grid squares for each land use type.

Land Use Type	1970	2000 Prediction	2000
Transportation			
Institutional			
Open Space			
Residential			
Commercial & Industrial			
Agricultural			



## Intersection: *Shea and 32<sup>nd</sup> Street*

1. Write a **description** of the site in **1970**
2. Fill in the **land use chart** using the **grid** feature
  - a. Count the number of squares covered for each category.
  - b. You can either use fractions or round to whole numbers to determine coverage. Decide as a class.
3. Make a prediction for the site in the **Predict** area of the Descriptions and Predictions Chart and on the **Land Use Chart**.
4. Go through the activity and make your predictions. Once the site is covered, use the **grid** feature once to fill in the **Land Use Chart**.
5. Lastly, complete the **Reflect** area of the Descriptions and Predictions Chart.

### DESCRIPTIONS AND PREDICTIONS

1

**1970:** Write a brief description of land use for this area

3

**Predict:** How do you think this area will change? Why?

6

**2000:** Write a brief description of land use for this area

7

**Reflect:** How did the actual change compare with your prediction?

### LAND USE CHART

Complete by counting the grid squares for each land use type.

Land Use Type	1970	2000 Prediction	2000
Transportation			
Institutional			
Open Space			
Residential			
Commercial & Industrial			
Agricultural			



## Intersection: *Union Hills and Loop 101*

1. Write a **description** of the site in **1970**
2. Fill in the **land use chart** using the **grid** feature
  - c. Count the number of squares covered for each category.
  - d. You can either use fractions or round to whole numbers to determine coverage. Decide as a class.
3. Make a prediction for the site in the **Predict** area of the Descriptions and Predictions Chart and on the **Land Use Chart**.
4. Go through the activity and make your predictions. Once the site is covered, use the **grid** feature once to fill in the **Land Use Chart**.
5. Lastly, complete the **Reflect** area of the Descriptions and Predictions Chart.

### DESCRIPTIONS AND PREDICTIONS

1	<b>1970:</b> Write a brief description of land use for this area
3	<b>Predict:</b> How do you think this area will change? Why?
6	<b>2000:</b> Write a brief description of land use for this area
7	<b>Reflect:</b> How did the actual change compare with your prediction?

### LAND USE CHART

Complete by counting the grid squares for each land use type.

Land Use Type	1970	2000 Prediction	2000
<b>Transportation</b>		2	4
<b>Institutional</b>			5
<b>Open Space</b>			
<b>Residential</b>			
<b>Commercial &amp; Industrial</b>			
<b>Agricultural</b>			



## Intersection: *McKellips and Gilbert*

1. Write a **description** of the site in **1970**
2. Fill in the **land use chart** using the **grid** feature
  - e. Count the number of squares covered for each category.
  - f. You can either use fractions or round to whole numbers to determine coverage. Decide as a class.
3. Make a prediction for the site in the **Predict** area of the Descriptions and Predictions Chart and on the **Land Use Chart**.
4. Go through the activity and make your predictions. Once the site is covered, use the **grid** feature once to fill in the **Land Use Chart**.
5. Lastly, complete the **Reflect** area of the Descriptions and Predictions Chart.

### DESCRIPTIONS AND PREDICTIONS

1	<b>1970:</b> Write a brief description of land use for this area
3	<b>Predict:</b> How do you think this area will change? Why?
6	<b>2000:</b> Write a brief description of land use for this area
7	<b>Reflect:</b> How did the actual change compare with your prediction?

### LAND USE CHART

Complete by counting the grid squares for each land use type.

Land Use Type	1970	2000 Prediction	2000
Transportation			
Institutional			
Open Space			
Residential			
Commercial & Industrial			
Agricultural			



**Discussion Questions:**

1. After looking at all four intersections:  
What are the similarities in the changes?

---

---

---

What are the difference in the changes?

---

---

---

2. Is there a difference in land-use over time in areas that were formerly open space vs. areas that were formerly agricultural lands?

---

---

---

---

3. What do you think will happen to the Phoenix Metro Area in the next 10, 20, 30 years?

---

---

---

---

---

---

4. How has the lives changed of people who lived in this area in 1970 as compared to today? What things would be better? What things would be worse?

---

---

---

---

---

---

