Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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# Modeling Earth’s Farmland

**Purpose**

The purpose of this activity is to identify the importance of farmland and how ecology affects the availability of good farm land.[[1]](#endnote-2)

**Procedure**

 **Materials**

1. Apple
2. Knife

**Sequence of Steps**

1. Cut an apple into four quarters and set aside three of the pieces.
2. One quarter of the Earth’s surface is land. (This is represented by one of the apple quarters.)
3. The remaining three quarters of the Earth is covered with water. (Represented by the three pieces of apple you set aside.)
4. Slice the remaining quarter that you have in front of you into thirds (three pieces).
5. ![C:\Users\Angela\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\DRP2N1IJ\MCj04242300000[1].wmf]()Set aside two of those three pieces because two thirds of the Earth’s land is too hot, too cold, or too mountainous to farm of live on!
6. Calculate how much apple (Earth) you actually have available to farm, and record in “observations”.
7. Carefully peel the remaining small piece of apple. This peel represents the usable land surface that must support the entire human population!
8. Complete the questions under “observations” and then clean your lab area.

**![C:\Users\Angela\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\DRP2N1IJ\MCj04242300000[1].wmf]() Observations**

1. How much apple (earth) is actually available to farm?

2. What is your initial observation after completing this activity?

3. What may happen if available farmland is converted to other uses?

4. Currently, what industries or other uses are taking over available farmland?

5. How does the ecosystem affect the type of land that is usable for farming? Brainstorm at least three ecological factors that affect production.

1. Knapp, Beth (2008).Modeling Earth's Farmland, Lab. *Atwater High School Agriculture Dept*. [↑](#endnote-ref-2)