

“Three Kinds of Addresses” – A Standards-Based Unit

1. Generalization: Patterns

2. Generalizing Statement: Patterns have an internal order, and are enablers

3. Essential Questions:

- In what ways can we describe our *location* on earth?
- How is it that we can have several different “addresses” simultaneously?
- How can I use my different kinds of addresses to accomplish certain things?

4. Content Standards:

HSS 4.1.1: Explain and use the coordinate grid system of latitude and longitude to determine the absolute locations of places in California and on Earth.

NETS 3–5.9:¹ Demonstrate an understanding of concepts underlying hardware, software and connectivity....

5. Learning Expectations (Goals):

- **As a result of these lessons, students will know:**
 - They have 3 kinds of addresses: civic, geographic and cyberspace;
 - A civic address is defined by street address, city, state, ZIP code;
 - A geographic address is defined by latitude and longitude;
 - A cyberspace address is defined by a URL or an email address;
 - Each of these kinds of addresses have their own uses, and are more or less helpful depending on the circumstances and what you need to accomplish.
- **As a result of these lessons, students will be able to:**
 - Properly write their home and school civic addresses, such as for addressing an envelope;
 - Find their home and school (and/or other locations/landmarks) on a city street map;
 - Find the latitude and longitude of various locations on a map or globe;
 - State the latitude and longitude of their home and school (and/or other locations/landmarks);
 - Explain the notion that “cyberspace” can be thought of as “location” in a geographic sense, even though it is independent of physical geographic location;
 - Define and explain terms such as cyberspace, URL, email address, domain, TLD (top-level domain), subdomain;
 - Identify a URL as a website address; give several examples of website addresses;
 - Identify an email address as such, and describe the necessary components that comprise an email address;
- **Pre-Requisite:**
 - It is assumed that students have already been introduced to the Depth & Complexity icons.

¹ **NETS 3–5.9** refers to the National Educational Technology Standards, grades 3–5, standard 9. © 2000 by the International Society for Technology in Education (ISTE) (page 20)

6. Pre-assessment options:

- “Location” brainstorm:
In small groups, have students brainstorm all the different ways they can describe their location, as they sit there in the classroom... Or, the location of the school itself...
- K-W-L:
Small group discussion followed by whole-class sharing out:
 - K** What do they already **know** about location, describing a person/object’s location...
 - W** What do they **want to learn** about location, describing a person/object’s location...
 - L** What have they **learned**... Do this after the unit...
- Quiz:
Give them a 5–15-question quiz with questions about location...
- Scavenger Hunt:
Have students (individually or in small groups [diads, triads...]) search the classroom for different descriptions of locations, such as: campus map, other maps, globe, references to website addresses, email addresses, latitude & longitude...
- Journal entry:
Have students write in their journals a response to a prompt such as this:
“Where are you right now? Describe your present location in as many ways as you can.”

7. Learning Experiences:

- **Opener (Setting the stage):**
Write “location” on the board. Ask for definitions, descriptions of locations, questions, discussion...
- **Pre-assessment:**
Choose one or more activity from the list above (#6)...
- **Activity Choices:**
 1. **Three kinds of addresses note-taking**
(This might well be broken into three separate activities over three consecutive days, spending one day on each kind of address...)
 - Distribute note-taking worksheet. Have students look at the three graphics on the back.
 - Define each kind of address:
 - Civic address defines your location in a town, by street, city, state, postal code
 - Geographic address defines your location on earth, by latitude and longitude
 - Cyberspace address defines your location on the Internet, by URL and email address.
 - Explain that there is vocabulary—the **language of the discipline**—used for each kind of address, and there are **rules** that apply to how each are defined, described and used.
 - Lead class discussion to complete the first part of the worksheet – civic address:
 - Define, give examples of street addresses, municipalities (city, state) and postal codes. Perhaps compare U.S. to Canadian postal codes...
 - List rules for how to write a proper address...
 - On separate paper, have students list unanswered questions about civic addresses.
 - Lead class discussion to complete the second part of the worksheet – geographic address:
 - Define the terms listed: latitude, longitude, equator, prime meridian, hemisphere
 - List rules for how latitude and longitude are written and how they are used.
 - On separate paper, have students list unanswered questions about geographic addresses.
 - Lead class discussion to complete the third part of the worksheet – Internet address:

- Define, give examples of URLs, domains, top-level domains, email addresses, IP addresses, TCP/IP protocols...
- List rules for how domains work (domain, TLD, sub-domains, capitalization...); email address rules; protocols (TCP/IP, FTP, HTTP...)
- On separate paper, have students list unanswered questions about geographic addresses.

2. Icons Extension Menu:

- Have students choose one of the four activities on the extension menu, and complete that activity according to its instructions.

3. “Coordinate Graphs” Tiered Menu:

- Have students choose one of the eight activities (grouped into three tiers) on the extension menu, and complete that activity according to its instructions.

4. Art project: poster, diorama or mobile:

- Have students choose one of the 3 kinds of addresses, and choose a product they’d like to create. Their product should meet the following criteria:
 - Demonstrate understanding of the vocabulary and concepts relating to civic/geographic/Internet address;
 - Include one or more specific examples;
 - Be well made, showing effort and attention to detail, including appropriate use of colors, text, images;


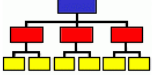

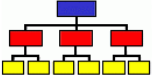

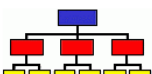
The details will vary according to product and address type, of course...

8. Materials and Resource References:

- “Three Kinds of Addresses” note-taking worksheet (Language of the Discipline, Rules) by Ted Altenberg © 2009
- “Three Kinds of Addresses” Icons Extension Menu by Ted Altenberg © 2009
- “Coordinate Graphs” Tiered Extension Menu by Laurie Westphal, © 2009 Prufrock Press, downloaded from http://www.prufrock.com/client/client_scans/prodscanlg/266_sa2.jpg
- Various maps, blackline masters from HM History Social Science, downloaded from <http://eduplace.com/ss/socsci/ca/books/bkd/maps/index.html>.
- **Additional Activity resources:**
 - <http://geography.mrdonn.org/latitude.html>
 - <http://www.nationalgeographic.com/xpeditions/lessons/01/gk2/longlat.html>
 - <http://www.nationalgeographic.com/xpeditions/lessons/01/g35/>
 - http://www.education-world.com/a_lesson/00-2/lp2025.shtml
 - <http://www.enchantedlearning.com/geography/mapreading/>
 - <http://www.teachervision.fen.com/maps/lesson-plan/4171.html>
 - http://montessorimom.typepad.com/my_weblog/2008/06/links-for-20-20.html
 - <http://www-istp.gsfc.nasa.gov/stargaze/Llatlong.htm>
 - <http://www.doe.state.la.us/LDE/uploads/2558.pdf>
 - <http://search.dogreatgood.com/dgg/ws/results/Web/Latitude%20And%20Longitude/1/302361/RightNav/Relevance/iq=true/zoom=off/iceUrlFlag=7?IceUrl=true>

Three Kinds of Addresses


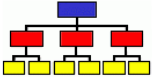

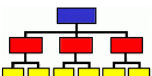

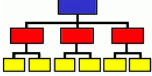
This lesson explores the idea of **“location”** and looks at three very different ways we can locate ourselves in the world. During the lesson, use this table to take notes on the **language of the discipline** and the **rules** about each kind of address.

“Civic Address:” Your location as defined by street and municipal address	
Street address:	 
Municipality:	
Postal code (ZIP):	
“Geographic Address:” Your location on earth as defined by latitude and longitude	
Latitude:	 
Longitude:	
Equator:	
Prime Meridian:	
Hemisphere:	
“Internet Address:” Your location in “cyberspace”	
URL (web address):	 
Domain Name:	
Top-Level Domain (TLD):	
Electronic Mail address:	
IP Address:	
TCP/IP:	

Sample

Three Kinds of Addresses

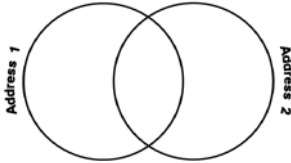
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<p>“Civic Address:” Your location as defined by street and municipal address</p>		
<p>Street address: <i>Number Street name</i></p> <p>Municipality: <i>City, State</i></p> <p>Postal code (ZIP): <i>ZIP code (5- or 9-digit)</i></p>		<ul style="list-style-type: none"> • Addresses often start with a person's name • Then list the street address, then city, state and ZIP 
<p>“Geographic Address:” Your location on earth as defined by latitude and longitude</p>		
<p>Latitude: <i>Number Street name</i></p> <p>Longitude: <i>Number Street name</i></p> <p>Equator: <i>Number Street name</i></p> <p>Prime Meridian: <i>Number Street name</i></p> <p>Hemisphere: <i>Number Street name</i></p>		<ul style="list-style-type: none"> • Addresses often start with a person's name 
<p>“Internet Address:” Your location in “cyberspace”</p>		
<p>URL (web address):</p> <p>Domain Name:</p> <p>Top-Level Domain (TLD):</p> <p>Electronic Mail address:</p> <p>IP Address:</p> <p>TCP/IP:</p>		<ul style="list-style-type: none"> • Addresses often start with a person's name 

Three Kinds of Addresses: Activity

Choose one of the activities below to communicate what you have learned about the three kinds of addresses. “Show what you know” by producing a quality product!

Details: A Venn Diagram



1. On separate paper, draw two large circles to create a Venn diagram, as shown above.
2. Choose any two of the three kinds of addresses. Write their names on the outside of the circles.
3. In the non-overlapping part of each circle, write as many details as you can about each address type that are **unique** to that kind of address.
4. In the area where the two circles overlap, write as many details as you can that are **true about both kinds of addresses!**

★ **Extra Credit:** Try a 3-way Venn diagram, with three circles. You then have 3 different 2-way overlaps and an overlap for all 3 addresses!



Relate Over Time: Report or Timeline

1. Research the history of the 3 kinds of addresses:
 - When were the first towns; when did houses first have street addresses?
 - When were the first postal systems started?
 - When were latitude and longitude invented?
 - When was the Internet invented? When was email first used? When was TCP/IP developed? When was the World Wide Web invented?
2. Write a 1–2 page report that describes the history of these developments, and explains the order in which these 3 kinds of addresses developed.

Or,
2. Create a timeline graphic that shows when these different things were developed or invented.



Perspectives:

Who Might We Use These Addresses?

1. On separate paper, write the list below of people’s occupations, leaving several lines for each.
2. Identify which addresses people in each occupation might use, and how they would use them. Remember that people in any of these occupations might use 2 or all 3 kinds of addresses.
3. Now do the same for *yourself!* How do you use any of these addresses? Do you use all three? How?

★ **Extra Credit:** Make a poster illustrating one of the occupations and how that person uses 2 or all 3 kinds of addresses.



Unanswered Questions:

1. On separate paper, write *at least* 3 questions you have for each of the 3 kinds of addresses (9 total).
2. Predict where or how you could find the answers to your questions?

