Unit 1 Thinking Geographically

APHuG Exam Review
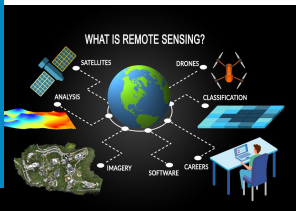
Iris Loucks May 2020

1.1 Introduction to Maps

I can identify maps and information on maps

Alaska Poverty and Education Measures by Public Health Regions

Percent of population below poverty level
Percent of population less than high school education
Percent of children below poverty level
Percent of population less than college education

I can identify spatial patterns and relationships portrayed in maps

3. absolute and relative directions:

absolute direction: north, south, east, west
relative direction: "the middle east," "west coast," "deep south"

4. absolute and relative distance:

absolute distance: cm, km, miles
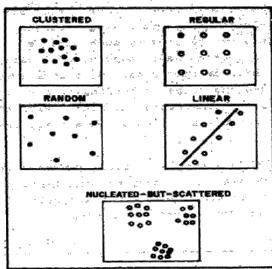**relative distance**: measured by time

Clustering
Dispersal
Elevation

Which is which?

_____

_____

1.2 Geographic Data

I can identify different methods of geographic data collection

WHAT IS GIS?
GEOGRAPHIC INFORMATION SYSTEMS
MAPS, APPS, ANALYSIS, CAREERS, DATA, SOFTWARE, SATELLITES

WHAT IS REMOTE SENSING?
SATELLITES, DRONES, ANALYSIS, CLASSIFICATION, IMAGERY, SOFTWARE, CAREERS

GIS vs Remote Sensing

Two types of Thematic Maps

Qualitative	Quantitative
Show nominal data	Show numerical data
Shows distribution	Show variation from place-to-place
No quantities	Generalized numbers

What do you think?

Qualitative or Quantitative?

PIN   RADIUS   HEAT   TERRITORY   BUBBLE

Visual Mapping / Online Mapping

CLUSTERED   REGULAR   RANDOM   LINEAR   NUCLEATED-BUT-SCATTERED

FIG. 22: ILLUSTRATION OF SPATIAL PATTERNS

I can identify how map projections distort spatial relationships

_____, _____, _____, _____

Map projection examples are LOCATED IN YOUR GRAND REVIEW

1.4 Spatial Concepts

inside outside near around under over
above below up far together apart big
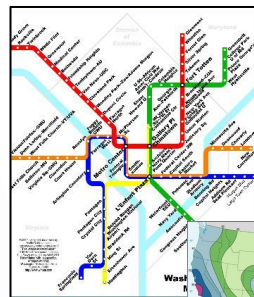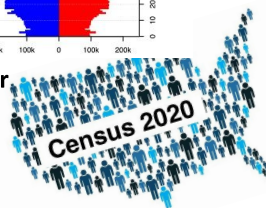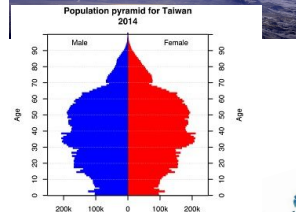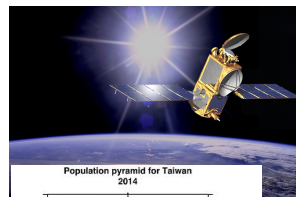between down small

I can define major geographic concepts that illustrate spatial relationships

- Absolute and relative locations

1.3 The Power of Geographic Data

Population pyramid for Taiwan 2014
Male   Female

I can explain how these are used for decision making purposes by the following:

○ _____
○ _____
○ _____

Census 2020

- PLACE

- FLOW

I can explain the geographical effects of decisions made using geographical information such as:

_____ & _____

Perception of Place

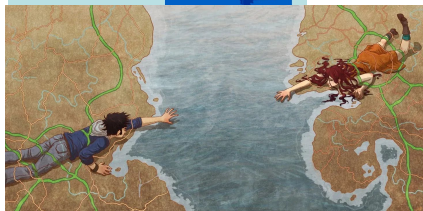Where Pennsylvanian students prefer to live

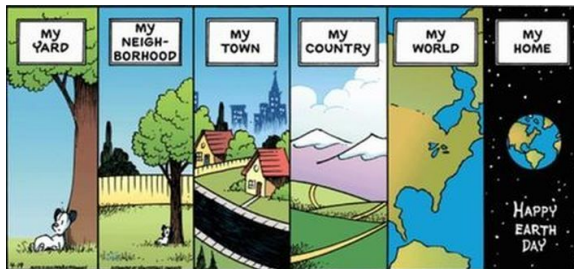Where Californian students prefer to live
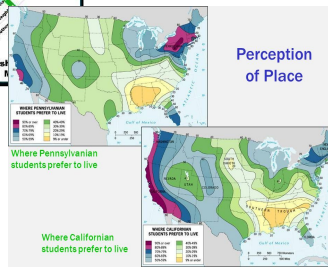
Space-time compression:

• The reduction in time it takes for something to reach another place

• Because of technology, connections have reduced distance (not literally in miles, but in space)
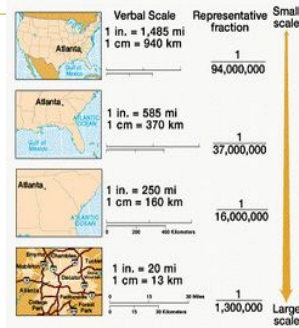
Distance decay

1.5   Human Environment Interaction

Environmental [____]

Environment → determines → Cultural Factors

Environmental [____]

Environment → selective of / Limits ← Cultural Factors

I can explain theories about how humans interacted with natural environments

I can explain how major geographic concepts illustrate spatial relationships.

o _____

o _____

o _____

1.6   Scale of analysis

MY YARD | MY NEIGH-BORHOOD | MY TOWN | MY COUNTRY | MY WORLD | MY HOME

HAPPY EARTH DAY

I can define scales of analysis used by geographers

o _____   o _____

o _____   o _____

Maps Scale

Verbal Scale | Representative fraction | Small scale

Atlanta
1 in. = 1,485 mi
1 cm = 940 km
$\frac{1}{94,000,000}$

• Larger the area shown
  □ = smaller scale

Atlanta
1 in. = 585 mi
1 cm = 370 km
$\frac{1}{37,000,000}$

• Smaller the area shown
  □ = larger scale

Atlanta
1 in. = 250 mi
1 cm = 160 km
$\frac{1}{16,000,000}$

1 in. = 20 mi
1 cm = 13 km
$\frac{1}{1,300,000}$

Large scale

I can explain what scales of analysis reveal

o _____

o _____

1.7   Regional Analysis

I can identify and explain the types of regions

_____

_____

_____

Regional Analysis

• Formal regions
• Functional regions
• Perceptual regions
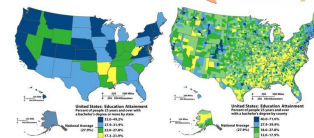
Petroleum Administration for Defense Districts

PADD 4: Rocky Mountain
PADD 5: West Coast, AK, HI
PADD 2: Midwest
PADD 1: East Coast
PADD 3: Gulf Coast

I can describe different ways that geographers define regions

o _____

o _____

I can explain how geographers apply regional analysis at local, national, and global scales

Pneumatic Emergency Ventilator Market 2020: Global and Regional Analysis by Top Key Market Players, Key Regions, Product Segments, and Applications by 2026

GLOBAL MARKET SIZE 2020

By Type
By End User
By Application

Unit 2 Population and Migration

Patterns and Processes

APHuG Exam Review

Iris Loucks May 2020

2.1 Population Distribution

I can Identify the factors that influence the distribution of human populations at different scales.

_____

o _____

2.2 Consequences of Population Distribution

I can explain how population distribution and density affect society and the environment.

I can explain the factors that account for contemporary and historical trends in population growth and decline.
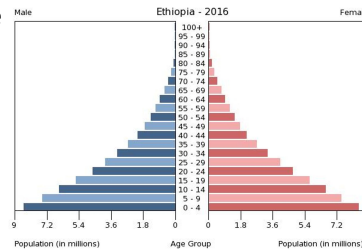
2.4 Population Dynamics

A population's growth and decline are based on

_____, _____,

and_____.

Doubling Number	Population	Year	RONI %	Doubling Time (Years)
0	1	3,000,000 BP	0.0001	500,000
1	2	2,500,000 BP	0.0001	500,000
2	4	2,000,000 BP	0.0003	250,000
3	8	1,750,000 BP	0.0003	250,000
4	16	1,500,000 BP	0.0005	125,000
5	32	1,250,000 BP	0.0005	125,000
6	64	1,000,000 BP	0.0007	100,000
7	128	900,000 BP	0.0007	100,000
8	256	800,000 BP	0.0007	100,000
9	512	700,000 BP	0.0007	100,000
10	1,024	600,000 BP	0.0007	100,000
11	2,048	500,000 BP	0.0007	100,000
12	4,096	400,000 BP	0.0007	100,000
13	8,192	300,000 BP	0.0014	50,000
14	16,384	250,000 BP	0.0014	50,000
15	32,768	200,000 BP	0.0014	50,000
16	65,536	150,000 BP	0.0014	50,000
17	131,072	100,000 BP	0.0014	50,000
18	262,144	50,000 BP	0.0028	25,000
19	524,288	25,000 BP	0.014	5,000
20	1,048,576	20,000 BP	0.014	5,000
21	2,097,152	15,000 BP	0.028	2,500

Geographers use RNI (crude death rate - crude

birth rate) and _____ to

explain _____ and _____.

POPULATION DENSITY IN EUROPE
Areas with 250 people or more, per sq. km.

I can define methods geographers use to calculate population density

o _____

o _____

o _____

I can explain the differences between and the impact of methods used to calculate population density

information about the pressure the population exerts on the land.

2.3 Population Composition

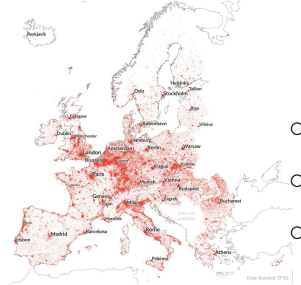I can describe elements of population composition used by geographers.

MORE THAN MEETS THE EYE!

It isn't just a pyramid. It shows patterns of _____ structure and _____ ratio which vary across different _____ and may be mapped and analyzed at different _____. They look at population _____ and _____ to make predictions.

2.5 The Demographic Transition Model

I can explain theories of population growth and decline.

Demographic Transition Model

Matching Population Pyramids

Epidemiologic Transition

Countries by Proportion of World Population

	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
	Infectious and parasitic diseases	Receding pandemics	Degenerative and man-made diseases	Delayed degenerative diseases	Potential resurgence of infectious diseases due to globalization
	Accidents and animal attacks	Sanitation, nutrition, medicine lead to lower CDR	Heart disease, cancer, diabetes, obesity	Extend life expectancy due to medical advances	
	"Natural checks" on population				

INFECTIOUS DISEASES   **CHRONIC DISEASES**

2.6 Malthusian Theory

I can explain theories of population growth and decline used to analyze population change and its consequences.

Quantity

Population

Malthusian catastrophe

Production of food

Time

I can explain the intent and effects of various long - and short-term population and immigration policies on population size and composition.

2.7 Population Policies

Save Japan

Ending Deaths   By Ending Births

Tamil Antinatalism and Child Free

Raise a kid

Japanese people will become extinct in 1800 years

Source: http://mega.com.tohoku.ac.jp/Children/index_en_2015.tar
https://sites.google.com/site/economicsblaog/home/children_number_watch

2.8 Women and Demographic Change

CONTRACEPTION

Ravenstein's Laws
by E. G. Ravenstein in 1880s

☐ Migration decrease with increase in distance
☐ It occurs towards the great centres of commerce and industry
☐ Each main stream produces counter streams
☐ Rural to urban migration is most common
☐ Female predominance among short distance migrants
☐ Dominance of economic motives
☐ Technological advancements promotes migration

I can explain how the changing role of females has demographic consequences that have reduced fertility rates in most parts of the world.

I can explain how the changing social, economic, and political roles for females have influenced patterns of fertility, mortality, and migration
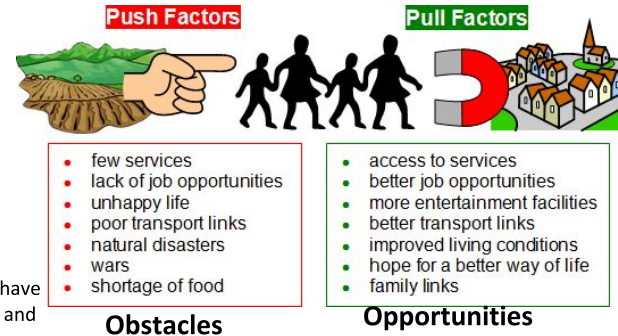
2.9 Aging Populations

I can explain the causes and consequences of an aging population.

Life expectancy by gender
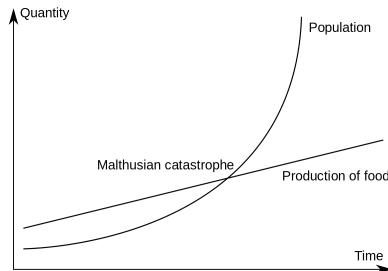
81   76

social political economic

What does this graphic show?

2.10 Causes of Migration

I can explain how different causal factors encourage migration.

Push Factors   **Pull Factors**

few services	access to services
lack of job opportunities	better job opportunities
unhappy life	more entertainment facilities
poor transport links	better transport links
natural disasters	improved living conditions
wars	hope for a better way of life
shortage of food	family links

Obstacles   **Opportunities**

Unit 3 Cultural
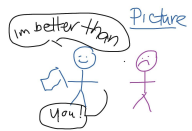## Patterns and Processes

APHuG Exam Review

Iris Loucks May 2020

3.1 Introduction to Culture

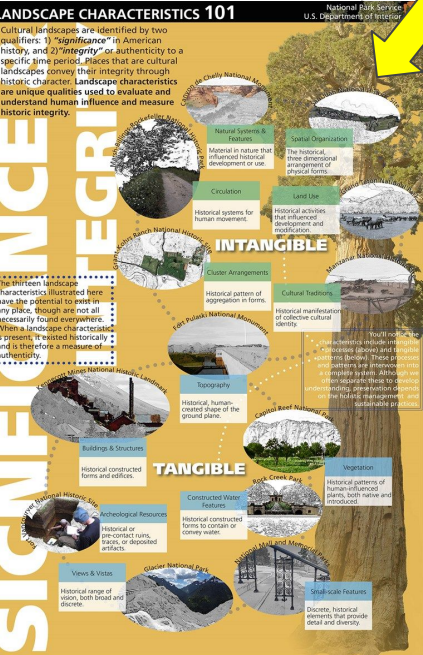I can define the characteristics, attitudes, and traits that influence geographers when they study culture.

TRAITS

ATTITUDES

Culture is the shared

_____,

_____,

_____ and

_____ of a society.

I'm better than

Picture

You!

3.3 Cultural Patterns

Sense of Place

PLACEMAKING

Centrifugal Force (away from the center)

Centripetal Force (toward the center)

3.2 Cultural Landscape

LANDSCAPE CHARACTERISTICS 101

National Park Service
U.S. Department of the Interior

Cultural landscapes are identified by two qualifiers: 1) "significance" in American history, and 2) "integrity" or authenticity to a specific time period. Places that are cultural landscapes convey their integrity through historic character. Landscape characteristics are unique qualities used to evaluate and understand human influence and measure historic integrity.

SIGNIFICANCE

INTEGRITY

Natural Systems & Features
Material in nature that influenced historical development or use.

Spatial Organization
The historical, three dimensional arrangement of physical forms.

Circulation
Historical systems for human movement.

Land Use
Historical activities that influenced development and modification.

INTANGIBLE

Cluster Arrangements
Historical pattern of aggregation in forms.

Cultural Traditions
Historical manifestation of collective cultural identity.

The thirteen landscape characteristics illustrated here have the potential to exist in any place, though are not all necessarily found everywhere. When a landscape characteristic is present, it existed historically and is therefore a measure of authenticity.

You'll notice the characteristics include intangible processes (above) and tangible patterns (below). These processes and patterns are interwoven into a complete system. Although we often separate these to develop understanding, preservation depends on the holistic management and sustainable practices.

Topography
Historical, human-created shape of the ground plane.

Buildings & Structures
Historical constructed forms and edifices.

TANGIBLE

Vegetation
Historical patterns of human-influenced plants, both native and introduced.

Archeological Resources
Historical or pre-contact ruins, traces, or deposited artifacts.

Constructed Water Features
Historical constructed forms to contain or convey water.

Views & Vistas
Historical range of vision, both broad and discrete.

Small-scale Features
Discrete, historical elements that provide detail and diversity.

I can describe characteristics of cultural landscapes.

I can explain how landscape features & land/resource use reflect cultural beliefs & identities & help shape the use of space in a given society.

The cultural landscape features impact all of the following:

_____

_____

_____

POOF!

How does the hat above fit into diffusion?

3.4 Types of Diffusion

SOCIAL MEDIA INFLUENCERS

Wal-Mart Store Openings, 1975-1979

McVeggie™   McAlooTikki™   Paneer Salsa Wrap
Crispy Chinese   McCurry Pan™   Pizza McPuff™

I can explain how patterns & landscapes of language, religion, ethnicity, & gender shape the global landscape.
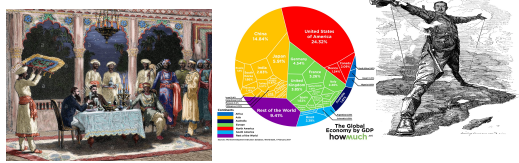
I can define the interaction of people through the types of diffusion that contribute to the spread of cultural practices.

Let's play Name that Diffusion!

_____

_____

_____

_____

_____

3.5 Historical Causes of Diffusion

I can explain how historical processes impact current cultural patterns.
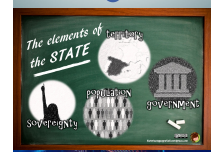

↑↑↑These led to those ↓↓↓

Bahamian English Creole

3.6 Contemporary Causes of Diffusion

I can explain how cultural ideas and practices are socially constructed and change through both small-scale and large-scale processes.


ENGLISH

Cultural Convergence

Indigenous

3.7 Diffusion of Religion

I can explain what factors led to the diffusion of universalizing and ethnic religions.

Universalizing religions spread thru expansion and relocation. They are:

Ethnic religions are found near the hearth or spread thru relocation. They are:

C_____

I_____

B_____

S_____

H_____

J_____

&

L
A
N
G
U
A
G
E

3.8 Effects of Diffusion

I can explain how the process of diffusion results in changes to the cultural landscape.

? _____

? _____

? _____

? _____

麦当劳
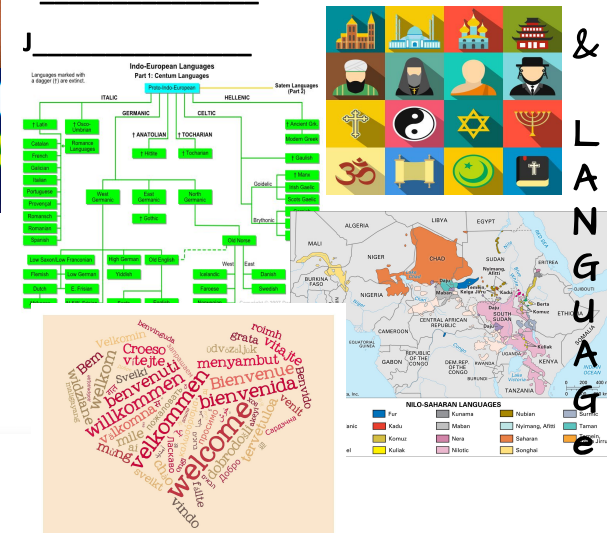
Unit 4 POLITICAL
Patterns and Processes

APHuG Exam Review

Iris Loucks May 2020

4.1 Introduction to Political Geography

I can define the different types of political entities for world political maps and I can identify a contemporary example of political entities.

Identify examples on the map above: Nation, nation-state, stateless nation, multinational state, multi state nation, autonomous region, semi-autonomous region, American Indian reservation

4.2 Political Processes

I can explain the processes that have shaped contemporary political geography and have influenced contemporary political boundaries.

4.4 Defining Political Boundaries

I can define political boundaries used by geographers.

R, S, S, A, G, C
OLD
FORCED
AFTER
BEFORE
REGULAR
THEREFORE

I can describe the concepts of political power and territoriality as used by geographers.

4.3 Political Power and Territoriality

NEOCOLONIALISM
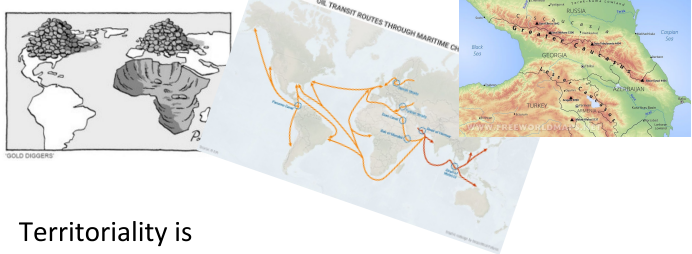
Territoriality is

_____

_____

4.5 Function of Political Boundaries
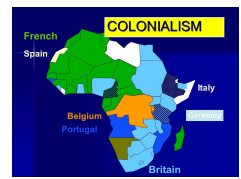
I can explain the nature and function of international and internal boundaries.

Boundaries are defined like_____,
delimited like _____, and demarcated like _____.

Can be land or maritime and be divided by

4.6 Internal Boundaries

Voting districts

Gerrymandering

HOW TO STEAL AN ELECTION

Redistricting
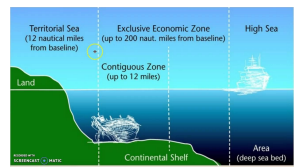
I can explain the nature and function of international and internal boundaries.

4.7 Forms of Governance

I can define federal and unitary states.

LOCUS OF POWER

unitary

federal

©Study.com

_____ power vs. _____ power

4.8 Defining Devolutionary Factors

I can define factors that lead to the devolution of states.
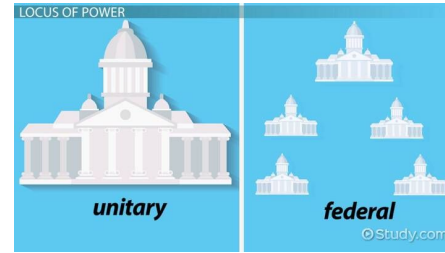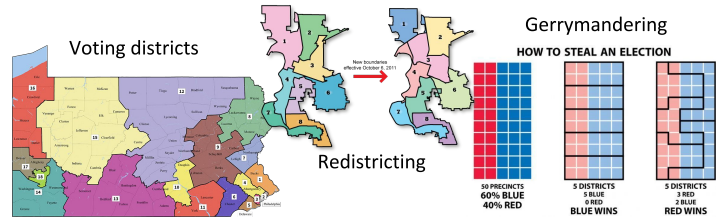
1._____
2._____
3._____
4._____

4.9 Challenges to Sovereignty

I can explain how political, economic, cultural, and technological changes challenge state sovereignty.

EXAMPLES OF EACH

_____   _____

_____   _____

_____   _____

_____   _____

DEVOLUTION

THANK YOU TECHNOLOGY!
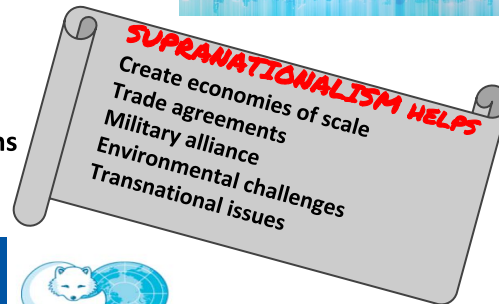
Who's Who of Supranational Organizations

SUPRANATIONALISM HELPS
Create economies of scale
Trade agreements
Military alliance
Environmental challenges
Transnational issues

4.10 Consequences of Centrifugal and Centripetal forces

I can explain how the concepts of centrifugal and centripetal forces apply at the state scale.

Centrifugal Forces

Centrifugal Forces Divide a State
Ethnic Conflict
Social Injustice
Poverty
Dictatorial Leadership
Religious Intolerance
Nationalism
Loss of Rights
Any Other Divisive Force

Centripetal Forces

Centripetal Forces Hold a State Together
Ethnic Unity and Tolerance
Social/Economic Equity
Just and Fair Legal System
Charismatic Leadership
Religious Acceptance
Nationalism
Common Heritage
Common Language
Any Other Unifying Force

Unit 5 AGRICULTURE and RURAL LAND-USE

Patterns and Processes

APHuG Exam Review

Iris Loucks May 2020

5.1 Introduction to Agriculture

I can explain the connection between physical geography and agricultural practices
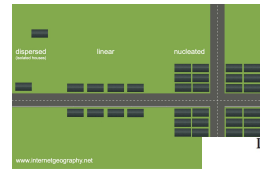

Intensive

Extensive

- Increased food production
- Allowed farmers to do factory work in urban areas
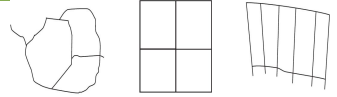- Innovations
- Crop rotation
- Fertilizers
- Tractors

5.2 Settlement Patterns and Survey Methods

I can identify different rural settlement patterns and methods of surveying rural settlements.
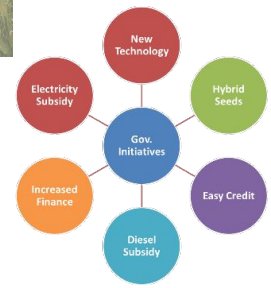
Land Survey Patterns in North America

Metes and Bounds   Township and Range   Long lots

5.5 The Green Revolution

I can explain the consequences of the Green Revolution on food supply and the environment in the developing world.

Negative and Positive

5.4 The Second Agricultural Revolution

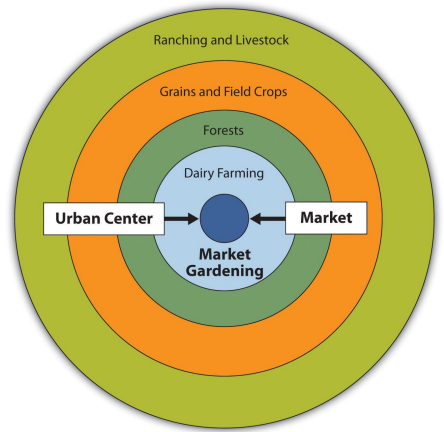I can explain the advances and impacts of the second agricultural revolution.

5.3 Agriculture Origins and Diffusion

I can identify major centers of domestication of plants and animals and explain how plants & animals diffused globally
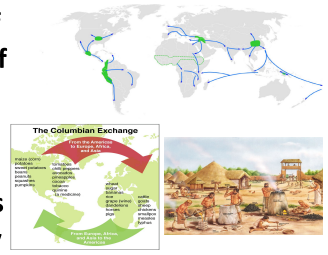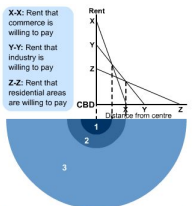

5.8 Von Thünen Model

I can describe how the von Thünen model is used to explain patterns of agricultural production at various scales.
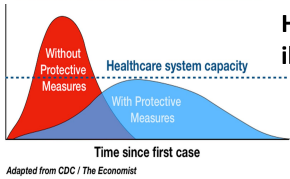
5.6 Agricultural Production Regions

I can explain how economic forces influence agricultural practices.

BASIS FOR COMPARISON	INTENSIVE FARMING	EXTENSIVE FARMING
Meaning	Intensive Farming refers to an agricultural system, wherein there is high level use of labor and capital, in comparison to the land area.	Extensive Farming is a farming technique, in which large farms are being cultivated, with relatively lower inputs, i.e. capital and labor.
Population	It is practiced in densely populated region.	It is practiced in moderately populated region.
Land holding	Small and expensive	Large and inexpensive
Farmland	Near to the market	Remotely located
Per hectare output	Large	Small

X-X: Rent that commerce is willing to pay
Y-Y: Rent that industry is willing to pay
Z-Z: Rent that residential areas are willing to pay

1: CBD with commerce and offices
2: Industry
3: Residential with highest density nearest centre

5.7 Spatial Organization of Agriculture

I can explain how economic forces influence agricultural practices.

Commercial vs. Small Family Farms

How does this graphic of COVID-19 illustrate carrying capacity?
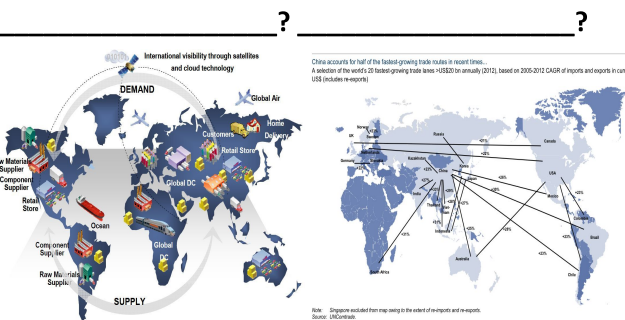
Adapted from CDC / The Economist

5.10 Consequences of Agricultural Practices

I can explain how agricultural practices have environmental and societal consequences and alter the landscape.
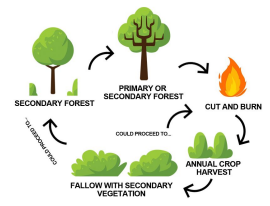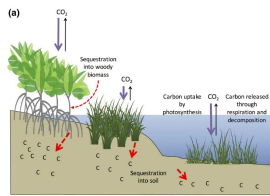
5.9 The Global System of Agriculture

I can explain the interdependence among regions of agricultural production and consumption.

_____? _____?

Environmental effects and agricultural practices

State of commodity dependence 2014

2/3 developing countries are commodity-dependent

↑ 50% recorded an increased of their commodity dependence between 1995 and 2013

value of commodity exports from developing countries in 2013 $3.2 trillions

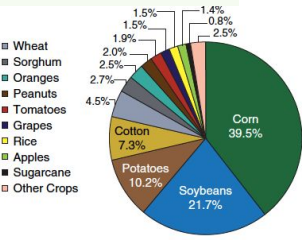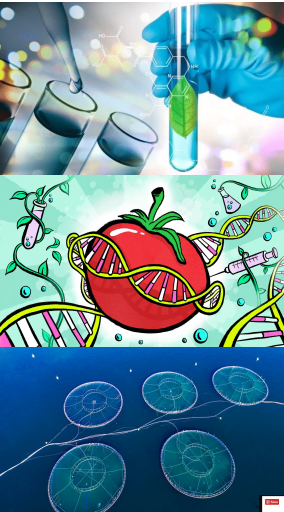This value has increased since 1995 +570%

5.11 Challenges of Contemporary Agriculture

I can explain challenges and debates related to the changing nature of contemporary agriculture and food-production practices.
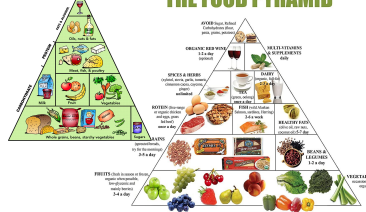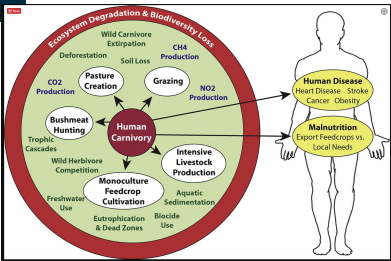
Innovations

Debates

CSA
KNOW YOUR FOOD: A SHORT FILM SERIES

TEN PRINCIPLES OF FAIR TRADE

1. OPPORTUNITIES FOR DISADVANTAGED PRODUCERS
2. TRANSPARENCY & ACCOUNTABILITY
3. FAIR TRADE PRACTICES
4. FAIR PAYMENT
5. NO CHILD LABOUR, NO FORCED LABOUR
6. NO DISCRIMINATION, GENDER EQUITY, FREEDOM OF ASSOCIATION
7. GOOD WORKING CONDITIONS
8. CAPACITY BUILDING
9. PROMOTE FAIR TRADE
10. RESPECT FOR THE ENVIRONMENT

WORLD FAIR TRADE ORGANIZATION

ENVIRONMENTAL BENEFITS OF ORGANIC FARMING
Agricultural system that works in harmony with nature

THE FOOD PYRAMID

LOCALLY GROWN

Food Insecurity in America

1._____ These locations
2._____ all have economic
3._____ effects on
4._____ food-production practices

Pie chart crops: Wheat, Sorghum, Oranges, Peanuts, Tomatoes, Grapes, Rice, Apples, Sugarcane, Other Crops — Corn 39.5%, Soybeans 21.7%, Potatoes 10.2%, Cotton 7.3%, 4.5%, 2.7%, 2.5%, 2.0%, 1.9%, 1.5%, 1.5%, 1.4%, 0.8%, 2.5%

FAST FOOD Trading Post — sodas fries shakes
SUPER MARKET
VEGETABLE MARKET
FRUIT STAND

SHIRLEY CANNON
shirleyc@me.com

5.12 Women in Agriculture

Changing diets, the role of agricultural production, and economic purpose are...

Ecosystem Degradation & Biodiversity Loss

BAD WEATHER AHEAD

I can explain geographic variations in female roles in food production and consumption.

...societal effects of agricultural practices.