

USING STUDENT-GENERATED QUESTIONS TO PROMOTE CURIOSITY AND
STUDENT LEARNING

by

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PROJECT DESCRIPTION

For my capstone project, I have designed a unit that uses the Question Formulation Technique (QFT) to support students in writing an essential question for the unit titled, “Political Patterns and Process.” The unit is the 4th unit in the Advanced Placement (AP) Human Geography course articulated in the Course and Exam Description. The goal of this unit is to harness and promote student curiosity in order to increase student learning. This unit plan is the result of my investigation of my research question: *how might student-generated questions through the Question Formulation Technique (QFT) be used to boost student learning by promoting curiosity?* The unit plan is designed to be directly usable for teachers of AP Human Geography. Moreover, by providing this exemplar and accompanying resources, the unit plan also demonstrates how QFT can be integrated more generally into any unit plan to promote student curiosity.

The unit plan is designed to address the student outcomes described in the Course and Exam Description (CED) as follows:

Students will understand that:

- The political organization of space results from historical and current processes, events and ideas.
- Political boundaries and division of governance, between states and within them reflected balances of power that have been negotiated or imposed.
- Political, economic, cultural or technological changes can challenge state sovereignty.

The unit is designed to be used in a remote learning environment. The remote learning environment is synchronous with the use of Zoom and 75 minute periods. Care is taken to minimize the length of the Zoom session and support student learning through a combination of synchronous and asynchronous learning. Canvas is used as the learning management system to facilitate online discussion and student access to resources. The unit is 12 days in length. The unit falls in the middle of the course and students do have some experience with QFT and questioning, however, the unit is designed to support students regardless of their experiences.

Resources integrated within the unit were shaped by the Right Question Institute which has many resources for teachers to support their integration of QFT. Lessons, assignments and slideshow were created through ideas posted in a public Facebook group for teachers of AP Human Geography.

The curricular approach used in the unit plan is Understanding by Design. The backwards design approach by Wiggins and McTighe (2011) means that the result is the foremost consideration in lesson planning. The student outcomes described in the CED are used as the desired result. This unit plan is designed to use QFT to support students in creating the inquiry that drives their learning to achieve the outcome.

After determining the desired result, teachers determine what would be acceptable evidence that students have achieved that result. Summative assessments are used to evaluate how well students have achievement. In designing the summative assessment, teachers determine how students will demonstrate their understanding of the desired result. In this unit plan, summative assessments are the Big Idea Visual, a selected response test and a map of Africa quiz.

Now that the desired result and measurement of the result has been determined, teachers need to design lessons. Each lesson then approaches what students will know and be able to do at the end of the lesson to reach the stated unit outcomes. Each lesson also uses formative assessment to track student progress. In this unit, student completion of assignments, discussion posts, completion of a graphic organizer are used as formative assessments.

The unit plan included here contains hyperlinks to folders and specific assignments in the context of the unit. Links in the learning plan lead to google folders with google slide presentations, assignments in the form of google documents and other materials the teacher would want in order to implement the unit. In addition, all documents can be accessed through the [Project's google folder](#).

STAGE 1 – DESIRED RESULTS	
Unit Title: Political Patterns and Processes	
Established Goals: AP Human Geography Course and Exam Description: Unit 4 Patterns and Spatial Organization Impacts and Interactions Spatial Patterns and Societal Change	
Understandings: <i>Students will understand that...</i> <ul style="list-style-type: none"> ● The political organization of space results from historical and current processes, events and ideas. ● Political boundaries and division of governance, between states and within them reflected balances of power that have been negotiated or imposed. ● Political, economic, cultural or technological changes can challenge state sovereignty. 	Essential Questions: Developed by students through QFT
Students will know: <ul style="list-style-type: none"> ● Independent states are the primary building blocks of the world political map. ● Types of political entities include nations, nation-states, stateless nations, multinational states, multistate nations and autonomous and semi-autonomous regions, such as American Indian reservations. ● The concepts of sovereignty, nation-states and self-determination shape the contemporary world. ● Colonialism, imperialism, independence movements and devolution along national lines have influence contemporary political boundaries ● Political power is expressed geographically as control over people, land and resources, as illustrated by neocolonialism, shatterbelts and chokepoints. 	Students will be able to: <ul style="list-style-type: none"> ● <i>Integrate new knowledge into their current understanding of the world.</i> ● <i>Craft rich questions</i> ● <i>Define</i> the different types of political entities. ● <i>Identify</i> a contemporary example of political entities ● <i>Explain</i> the processes that have shaped contemporary political geography. ● <i>Describe</i> the concepts of political power and territoriality as used by geographers. ● <i>Define</i> types of political boundaries used by geographers. ● <i>Explain</i> the nature and function of international and internal boundaries

<ul style="list-style-type: none"> • Territoriality is the connection of people, their culture and their economic systems to the land. • Types of political boundaries include, relic, superimposed, subsequent, antecedent, geometric and consequent boundaries. • Boundaries are defined, delimited, demarcated, and administered to establish limits of sovereignty, but they are often contested. • Political boundaries often coincide with cultural, national, or economic divisions. However, some boundaries are created by demilitarized zones or policy, such as the Berlin Conference. • Land and maritime boundaries and international agreements can influence national or regional identity and encourage or discourage international or internal interactions and disputes over resources. • The United Nations Convention of the Law of the Sea defines the rights and responsibilities of nations in the use of international waters, established territorial seas, and exclusive economic zones. • Voting districts, redistricting, and gerrymandering affect election results at various scales. • Forms of governance include unitary states and federal states. • Unitary states tend to have a more top-down, centralized form of governance, while federal states have more locally based, dispersed power centers. • Factors that can lead to the devolution of states include the division of groups by physical geography, ethnic separatism, ethnic cleansing, terrorism, economic and social problems, and irredentism. • Devolution occurs when states fragment into autonomous regions; subnational political-territorial units, such as those within Spain, Belgium, Canada, and Nigeria; or when states disintegrate, as happened in Eritrea, South Sudan, East Timor, and states that were part of the former Soviet Union. • Advances in communication technology have facilitated devolution, supranationalism, and democratization. • Global efforts to address transnational and environmental challenges and to create economies of scale, trade agreements, and military alliances help to further supranationalism. • Supranational organizations-including the United Nations (UN), North Atlantic Treaty Organization (NATO), European Union (EU), Association of Southeast Asian Nations (ASEAN), Arctic Council, and African Union-can challenge state sovereignty by limiting the economic or political actions of member states. • Centrifugal forces may lead to failed states, uneven development, stateless nations, and ethnic nationalist movements. • Centripetal forces can lead to ethnonationalism, more equitable infrastructure development, and increased cultural cohesion. 	<ul style="list-style-type: none"> • <i>Explain</i> how federal and unitary states affect spatial organization. • <i>Define</i> factors that lead to the devolution of states. • <i>Explain</i> how political, economic, cultural, and technological changes challenge state sovereignty. • <i>Explain</i> how the concepts of centrifugal and centripetal forces apply at the state scale.
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STAGE 2 – ASSESSMENT EVIDENCE

<p>Performance Tasks: Formative: My Big Idea Question Graphic Organizer</p>	<p>Other Evidence: Free Response Questions Selected Response Questions</p>
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Lesson Assignments Claim-Support-Question Posts Summative: Big Question Visual	Africa Map Quiz
Key Criteria: Big Idea Visual Rubric	

STAGE 3 – LEARNING PLAN
Summary of Learning Activities (75 minute block, remote learning) Day 1: Introduction to Political Geography ; Rules of Producing Questions and Produce Questions Day 2: Political Processes ; Categorizing, Improving and Prioritizing Questions Day 3: Political Power and Territoriality ; Next steps- Question selection- Essential Question Graphic Organizer (GO) Day 4: Defining Political Boundaries ; Essential Question GO Day 5: The Function of Political Boundaries and Internal Boundaries ; Essential Question GO Day 6: Forms of Governance ; Essential Question GO Day 7: Defining Devolutionary Factors and Challenges to Sovereignty ; Essential Question GO Day 8: Consequences of Centrifugal and Centripetal Forces ; Essential Question GO, Begin Visual Day 10: Big Question Visual Work Day 11: Visual sharing and discussion post commenting Day 12: Selected Response Test and Africa Map Quiz

In addition to the unit plan documents, another document was created to support students in a remote learning environment as they begin their investigation for a major research project. The document, [linked here](#), was created for students who identified social problems and were preparing to argue for the most effective solution. This document could easily be modified to support students preparing for a debate, discussion or any other project that requires students to sustain a thoughtful and thorough investigation.

The result of my investigation of my research question: *how might student-generated questions through the Question Formulation Technique (QFT) be used to boost student learning by promoting curiosity?* is curriculum and resources that teachers can use. Moreover, I hope that teachers are inspired to consider how they might

harness and promote curiosity to boost student learning and make their curriculum more student centered.

REFERENCES

- AP Human Geography Teachers (n.d) *Home* [Facebook page]. Facebook. Retrieved October 27, 2020 from <https://www.facebook.com/groups/teachersAPHG>
- Right Question Institute (2020) *Resources*. <https://rightquestion.org/rqi-resources/>
- Wiggins, G. & McTighe, J. (2011). *The understanding by design guide to creating high-quality units*. Alexandria, VA: Association for Supervision and Curriculum Development (ASCD).