

Teachers Resource Pack

FACING THE CHALLENGES OF MAP READING

Developing confidence in the teaching of map reading in the classroom



Prepared by Cubola Productions

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12, 13, 14 August 2013, San Ignacio

8 August 2013, San Pedro

Workshop Programme

Day I/ Morning Session

Welcome / opening remarks (MOE)

Introductions

Workshop goals:

By end of this workshop teachers will be able to:

- Discuss the relevance of *My First Atlas*, *Atlas of Belize* and *Atlas of Belize and the World* to the Social Studies curriculum and to the National Goals of Education.
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- Demonstrate a proficiency in teaching visual literacy, spatial thinking, and map reading.
- Achieve proficiency in map reading and the higher-order thinking skills needed to teach students to move from simply decoding maps to fully comprehending them.

- Be aware of the importance and usefulness of decoding images in everyday life.
- Act with confidence in their ability to effectively deliver lessons requiring map reading.
- Demonstrate the ability to identify and make linkages between map reading and the four core subject areas.
- Effectively demonstrate visual literacy, spatial thinking, and map reading in Social Studies lessons using the *Explorer Series* and the *Living Together Series*.
- Generate learning/teaching resources to be used with the Atlases at different levels.
- Use the Atlases to develop relevant evaluation tools.

Power point presentation

Followed by interaction with the atlases, maps and globes.

- Importance of visual literacy and spatial thinking
- Importance of maps
- Using visual literacy and spatial thinking to decode and understand maps

Discussion

Identify the challenges teachers face in teaching map reading in primary schools and suggest practical and effective strategies to overcome these challenges.

Day 1: LEARNING to be VISUALLY LITERATE

Afternoon Session

- Understanding perspective and projections
- Understanding map conventions (title, key, compass, scale, geographic coordinates—lines of latitude/lines of longitude)
- Applying Bloom's Taxonomy to map reading
- Multiple Intelligences Approach
- Practice session

Day 2 / Morning Session: APPLYING VISUAL LITERACY TO MAP READING

- Interpreting map information
- Reading maps, graphs, charts, tables, and diagrams
- Integrating map reading and map interpretation into curriculum themes at the Middle and Upper Divisions.
- Map reading and curriculum connections/linkages (Math, Science, Language Arts, HFLE and Expressive Arts in the Middle and Upper Divisions).

Day 2 / Afternoon Session

- Using classroom resources (*Explorer Series* and *Living Together* books and workbooks) for map reading practice.

Day 3 / Morning Session: ENJOYING MAP READING

- How to effectively use *My First Atlas of Belize* and *Living Together Series* for map reading practice.
- Integrating map reading and map interpretation into curriculum themes in the Lower Division.
- Map reading and curriculum linkages: Math, Science, Language Arts, HFLE and Expressive Arts at the Lower Division.

Day 3 Afternoon Session

- How to make a Social Studies class interesting to students.
- Managing the Social Studies classroom.
- Q & A and Evaluation

MAKING MAPS & ATLASES AN EVERYDAY TOOL IN SCHOOL:

A Guide to Using *My First Atlas of Belize*, *Atlas of Belize*, and *Atlas of Belize and the World*

By Barbara S. Balboni PhD

CHAPTER 1: VISUAL LITERACY AND SPATIAL THINKING

Visual Literacy

It may come as a surprise to you, but there is probably no skill that is better suited to help students to grow intellectually than the development of **Visually Literacy**. In the past, the overall goal of all teaching was to help students become literate. Students had to be able to read, write, and do math. But in the 21 century, our students, even very young ones, need to be **visually literate**. **Very conveniently, CHILDREN ARE VISUAL LEARNERS**. They learn through pictures much faster than they do through the more abstract world of words. This means that in many ways, they already have the “habits of mind” (Walbert, 2010) needed to be able to **identify, interpret, and comprehend the visual elements on a page or computer screen**. Of course, this also means that we teachers **must have** a dual-competency: to be visually literate ourselves and to be able to teach these essential skills to our students.

Although the concept of **visual literacy** has been around for many years, it is only in the last few years that theories have been developed. In 2011, Maria Avgerinou and Rune Petterson presented some of the many definitions associated with **Visual Literacy**. The following are relevant to us as teachers:

- A Visual Language exists
- Visual Language parallels Verbal Language
- Visual Language is a cognitive ability, but also draws on the affective domain
- The terms “ability,” “skill,” and “competency” have been invariably and interchangeably used to describe Visual Language.
- The Visual Language skills have been specified as (a) to read/decode/interpret visual statements, (b) to write/encode/create visual statements, and (c) to think visually
- The Visual Language skills are (a) learnable, (b) teachable, (c) capable of development and improvement
- The Visual Language skills are not isolated from other sensory skills
- Visual Communication, Visual Thinking, and Visual Learning are inextricably linked to Visual Language
- Visual Language has accepted and incorporated the principle contributions from other subject areas or disciplines
- Visual Language’s main focus is intentional communication in an instructional context

No doubt, many of the above definitions resonate with you because you intuitively know that the development of our visual sense is one of the most powerful “components of how we as humans learn and remember” (Bisland, 2007, p. 2). Whether consciously or not, we have been using **Visual Literacy** to help our students understand the images in their reading materials, visual aids in our classrooms, and the signs and symbols in their home, school, and community environments.

You may also have had an intuitive sense that the acquisition of knowledge—words, concepts, principles, etc.—depends on the “active reconstruction of past experiences” (Sinatra, 1986, cited in Bisland, p. 2).

One of the best strategies a teacher can use is to “build on” what students already know. Making connections helps them recall what they’ve learned and makes them more confident in facing the new things they have to learn.

Although children, and perhaps parents and teachers, are not aware of this—children have been decoding their world since infancy. Children have been “decoding” the natural and manufactured worlds, seeking to understand it. Using maps to continue their decoding of the world is a great gift to them. This workshop should strengthen the skills you already have and perhaps add a few more “arrows in your quiver.”

Education is a bridge linking what children bring into the classroom with new ideas and concepts that they do not know. Their decoding process is greatly enhanced when we help them become more **visually literate**—understanding intended meanings of images and words and evaluating them. With our help students should be able to incorporate the huge amount of information that is included in maps, even simple ones, into their knowledge “database.”

And **Visual Literacy** is “multifaceted” (Bisland, 2007, p. 2). This means that we can use map reading to teach the concepts in the other subjects! This should make all teachers very happy. Instead of isolating what they learn in one subject, teachers and students should develop the habit of “bridging the gaps” between Language Arts, for example, and Social Studies. Maps should be the bridge that links one area of their knowledge with another.

Spatial Thinking

A critical part of **Visual Literacy** is **Spatial Thinking**. This is “what we do when we visualize shapes in our “mind’s eye”” (Dewar, 2011-2012). This important skill is often “taken for granted,” and thus ignored or not taught. Perhaps teachers have been a little afraid of dealing with **Spatial Thinking**. Perhaps it seemed like adding to the workload. But **CHILDREN THINK IN PICTURES AND IMAGES**. They do so in a non-sequential manner, which is why they can draw a house in the sky or hands sticking out of their mother’s head. They may be better at spatial thinking than we are because they are “closer to it;” it is their habit to think in pictures, which includes the world of symbols.

Dewar (2011-2012) argues that spatial thinking should be taught because it is a part of our **overall intelligence**. An added incentive to being diligent about teaching this skill is because **spatial thinking** is an important predictor of achievement in science, technology, engineering and mathematics. Map reading is the skill that keeps on teaching.

One more point needs to be made before we leave this very short introduction to **Visual Literacy** and **Spatial Thinking**. The current young generation—our own children and their peers—are very much “at home” in the visual world; they are very adept at using the electronic and digital tools that are flooding the marketplace and making their way to the most remote corners of Belize. However, it would be a huge mistake to then dismiss the challenge to teach **Visual literacy** and **Spatial Thinking** skills because we have witnessed a child being able to maneuver a very small computer screen and start to play games while we are trying to find the Start key!

If you have modern-day gurus in your class, involved them in your teaching, use them to engage their classmates. Let them explain concepts that seem to baffle some of the students. But, please, **do not skip over these essential skills that the students will carry with them the rest of the academic, professional, and personal lives.**

Given the above, it will come as no surprise to you that one of the very best ways for us to teach **visual literacy** and **spatial thinking** is through **map reading**.

Conclusion

The overall objective of this guide is to make Atlases and Maps an Everyday Tool for Teachers in Every Subject. It is meant to make us more **consciously Visually Literate and able to Think Spatially**. These skills will help us be more **competent** in teaching the learning objectives of the Social Studies curriculum, and to be **comfortable in the world of maps when teaching almost any** subject. Our students should be able to use their **Visual Literacy** and **Spatial Thinking skills** to acquire knowledge in the use of the *Living Together Series* and the *Explorer Series*, as well as in the core subjects of Math, Language Arts, and Science.

Map reading will teach children today's lessons for life in the global village of tomorrow. It is clear that we owe it to ourselves as well as our children to start early and build on these important steps in cognitive development.

References

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Dewar, Gwen. (2011-2012). Spatial Intelligence in Children: Why Training Matters. Retrieved on 1 June 2013 from <http://www.parentingscience.com/spatial-intelligence.html>.

Walbert, David. (2010). Learn NC. Retrieved from <http://www.learnnc.org/lp/editions/mapping/6439>. All material is copyrighted. Free use; fee downloadable.

CHAPTER 2

WHAT IS A MAP, MAP USES, AND KEY ELEMENTS ON A MAP

Because all of us—students and teachers—have been decoding and interpreting “forever” our world of words and images, we may not have realized that we have made an erroneous assumption--“that students know how to view material without having to be taught skills necessary to accomplish (a certain) task” (Begoray, 2001, Cited in Bisland, p. 2).

Wayfinding

Another way of thinking about maps is Wayfinding. The term may have come to us from the indigenous people of the Polynesia who had to “find their way” over the thousands of miles of ocean to locate and return to the 20,000 to 30,000 islands in the Pacific Ocean! Just as the Polynesians had to rely on their own senses and on oral traditions and other facts to help them find their way, we teachers need to do the same to help make maps a “key to learning.” Walbert (2010) writes, “In daily life, we most often use maps for wayfinding — finding our way from one place to another. Being able to read maps is, obviously, important to that activity, but so is being able to create them.” What a grand way to introduce the first activity in *My First Atlas of Belize*! The first lesson is Mapmaking—a challenge to be sure, but you will soon be “up to the task” of making your Belizean students MAP LOVERS!

Map reading

Although the Earth is a sphere, the easiest way to represent it is on a flat surface. A map is a visual way to organize facts or information (data). A way to represent space.

This second chapter has one objective—to help you become COMFORTABLE, even enthusiastic about Map Reading. It is a skill that will serve you and your students from infancy to old age! You will be doing yourselves and your students a great favor by making maps a part of their everyday tools to learning.

For example, most students in Belize know that the Maya were the earliest settlers in Belize, Mexico, Guatemala, and Honduras. They are called indigenous, meaning “sprung from the land,” but by using pages 12-13 in *My First Atlas of Belize*, pages 28 and 29 in *Atlas of Belize*, and the physical/political maps of Central America maps (pages 30 and 31) you can help students locate the vestiges of this great civilization and make inferences about why present-day boundaries do not correspond to the area occupied by the Maya in ancient times.

Maps are not just for Social Studies! They can be used at the start of every day. Students bring into class information they have heard on radio or TV, and in conversations. Depending on the grade level, teachers can tell or ask students to find the appropriate map and focus on one aspect of the news story. (Teachers will need to be prepared to direct attention to non-violent news items.)

Maps are not only used in geography. Just for fun you can look at electron density maps:

<http://www.google.com.bz/search?q=electron+density+map&tbm=isch&tbo=u&source=univ&sa=X&ei=cHqyUf-mGsHm0QHO6YG4Ag&sqi=2&ved=0CC4QsAQ&biw=1024&bih=587>

BASIC ELEMENTS OF MAPS

A. TITLE : Indicates the FOCUS of a particular map, the specific information that is being presented visually. These are some common thematic maps: Physical, Political, Population, Topographic, Climate, Rainfall and Road maps.

B. SCALE: Information that tells us the true distance on the ground. Scale can be expressed in fractions, in graphs, or in words.

C. COMPASS: A universal symbol that provides a way for us to “orient” ourselves.” It tells us where North is. Once we know where North is, we can find South, East and West. Most compasses are magnetic compasses, but there are others, such as the Gyroscopic Compasses.

D. GEOGRAPHIC COORDINATES: Imaginary lines that divide Earth into sections to help us find places.

Lines of Latitude: The horizontal imaginary lines, also called PARALLELS (latitude) because they are equally distanced from each other. They are numbered from 0° to 90° north and south. The “starting” point or Zero degrees is the Equator, the imaginary line which divides our planet into the Northern and Southern Hemispheres. The North Pole is 90° North and the South Pole is 90° South.

Lines of Longitude: The vertical imaginary lines, also known as MERIDIANS, that converge (come together) at the North Pole and the South Pole. The lines of Longitude are widest at the Equator. To ensure that everyone knows where to start measuring, Zero degrees longitude (0°) is located at Greenwich, England. The degrees continue from 0° to 180° East and from 0° to 180° West, and complete the 360° circle.

E. KEY (or LEGEND): A guide to the meaning of the symbols on a map. All maps have a Key or Legend. A Key or Legend uses symbols, colors, and text.

PROJECTION: The perspective or point from which a map is viewed.

OTHER WORDS ASSOCIATED WITH MAPS:

Atlas (group of maps), Thematic Maps (specific topics, such as Topographical, Climate, Population Density, or Political maps), Cartography (the science of mapmaking).

Learning Outcomes in Map Reading, Infant Division:

After using *My First Atlas*, students will be able to:

Map Reading Learning Outcomes	Curriculum Outcomes Infant 1	Curriculum Outcomes Infant 2	Curriculum Outcomes Standard I
1. Describe what a map is.	X		
2. Know how to use the TOC in the atlas.		X	X
3. Recognize that maps are flat, but they represent things that are not flat.	1.1, 1.2; p. 5	1.10; p. 17	
4. Use title to recognize different types of maps.		X	
5. Describe different uses for maps.	X	X	X
6. Explain what is a Symbol (icon).	X	X	X
7. Understand and use a Key (or Legend).	X	1.7 1.8 p. 13	X
8. Understand what Scale is.	X	X	X
9. Understand Cardinal Points (compass on a map) and use to locate places on a map.	1.3, 1.4; p. 5	1.5 1.8 p. 16	X
10. Understand Geographic Coordinates.	3.1; p. 7	1.9 p. 13; 3.2; p. 15	3.3, 3.4; p. 21
11. Describe Lines of Latitude and Longitude.		X	X
12. Apply orientation, Scale and Key to simple map of classroom.	1.3; p. 5	X	X
13. Understand the major elements in a map.		X	X
14. Decode the maps; describe information in maps.		1.7; p. 13 1.11; p. 17	X
15. Interpret the information presented in maps.		1.11; p. 17	X
16. Recognize the main physical characteristics of Belize.	X	1.7; p. 13 1.11; p. 17	X
17. Identify geographical features: cape, gulf, island, atoll, river, peninsula, peak, plateau, etc...		1.7; p. 13	X
18. Read and understand the text, relating it to a map.		X	X

Map Reading Learning Outcomes	Curriculum Outcomes Infant I	Curriculum Outcomes Infant 2	Curriculum Outcomes Standard I
19. Read and understand pictures, relating them to a map.	X	2.5; p. 17	X
20. Read and understand bars, graphs, and diagrams, .			X
21. Describe what a Political Map shows.		X	X
22. Find and name the five districts of Belize.	X		
23. Locate the district in which the student lives.	X		
24. Find villages or towns near where the student live.	1.4; p. 5	1.11; p. 17	X
25. Describe what a Population Map shows.		1.11; p. 17	
26. Use the Key to find towns, district capitals, and country capital.		1.11; p. 17	X
27. Recognize relationships between the type of land and its uses.	5.2; p. 7	X	X
28. Identify the main agricultural and marine products of Belize.	5.2; p. 7	X	X
29. Locate the main tourist destinations in Belize.	6.2; p. 11	X	X
30. Locate Belize in the Central American and Caribbean regions.		X	X
31. Locate Belize in the world map.		X	X
32. Identify the world's continents and oceans.		X	X
33. Identify Africa, as a place where the ancestors of the Creole, originated in World Map.		X	X
35 Identify Yucatan in Mexico as the home of the Mestizo and Maya who came to Belize long time ago.		X	X
35. Identify Guatemala and Salvador as the place where many people in Belize come from.		X	X
36. Identify St Vincent as the home of the Garifuna.			X
37. Identify some Maya Yucatec villages in Corozal D.			X
38. Identify some Mopan and Queq'chi Villages in the Toledo District.			X
39. Locate China, Taiwan and India on a world map.			X

I. INTRODUCTION TO MAP READING

pp. 4, 5, 9, 11, 13, 28-29, and 30-31

After using the *Atlas of Belize* students will be able to:

Learning Outcomes/Objectives	Std II	Std III	Std IV	Std V	Std VI	C. Links
1. Describe the major contents of the <i>Atlas of Belize</i> . 2.						Language A
3. Review and describe the main elements in maps: compass , scale and key . 4.						Language A.
5. Describe projection and its importance in map reading.						Math Language A.
6. Identify the main meridians and parallels on maps.	3.5, 3.6, 3.7; p. 5	3.9; p. 15	3.13; 3.15 p. 23	3.16, p. 5		
7. Find the Northern and Southern Hemispheres and Western and Eastern Hemispheres on a world map. 8.	3.7; p. 5					
9. Understand that the Prime Meridian is zero degrees (0°) longitude. 10.		3.9; p. 15				Math
11. Understand that the Equator is zero degrees (0°) latitude and it divides the globe into two equal parts, called hemispheres. 12.	3.5; p. 5	3.9; p. 15	3.15; p. 23		3.20; p. 13	Math
13. Identify the Tropic of Cancer and the Tropic of Capricorn and discuss why countries between these two latitudes are called the “tropics.”		3.10; p. 15	4.17		3.19; p. 13 3.20; p. 13	Language A. Science
14. Explain rotation and its effect on day and night.	4.5; p. 7	4.22; p. 25	4.22; p. 25	4.27; p. 5		Science
15. Recognize that the world is divided into 24 time zones and zero degrees (0°) longitude is called the Prime Meridian . East of the Prime Meridian (Greenwich, England), the time increases one hour every 15°; West of the Prime Meridian, the time decreases one hour every 15°.	3.5; p.5	3.10, 3.11, 3.12; p. 15; 4.12, 4.13, 4.14; p. 17	3.14; p. 23 4.26; p. 25	3.16; p. 5 3.17; p. 5	3.19; p. 13	Math

Learning Outcomes/Objectives	Std II	Std III	Std IV	Std V	Std VI	C. Links
16. Understand revolution and its effect on climate .	4.5; p. 7	4.17, 4.18 p. 17	4.25; p. 25	4.27; p. 5		Science
17. Recognize the reason why the area within the tropics experiences warmer temperatures and does not have four seasons .	4.5; p. 7	4.21; p. 17	4.25; p. 25	3.17; p. 5	3.19; p. 3; 3.20; p. 13	Science
18. Understand that regions below and above the tropics have four seasons.		4.21; p. 17			2.23; p. 13	Science
19. Explain how climate affects all living things.				3.17; p. 5	2.23; p. 13	Science
20. Discuss the Lines of Latitude and Lines of Longitude and how they intersect to help us to find a location.	3.5; p. 5 3.8; p. 5		3.13; p. 23			Math Language A.
21. Locate Belize on a world map.				1.20; p. 5		
22. Find the latitude and longitude of Belize on the world map.			3.13; p. 23			Math
23. Describe Belize's main geographical features, its latitude and longitude, its natural and political boundaries and its location on the Yucatan Peninsula. Apply this knowledge to the world.	1.12, 1.13; p. 5	1.17; p. 15	1.18, 1.19; p. 23	3.17; p. 5		Language A.
24. Use the Key to associate geographic names in Belize with its corresponding land and sea features, and transfer this knowledge to the world.	1.12, 1.13; p. 5	1.14; p. 15 1.15; p. 15	1.19; p. 23	4.27; p. 5		Language A.

2. BELIZE

pp. 2-3 (also 28-29 and 30-31)

After using the *Atlas of Belize* students will be able to:

Learning Outcomes/Objectives	Std II	Std III	Std IV	Std V	Std VI	C. Links
Describe the major contents of the <i>Atlas of Belize</i> .						L. Arts
Discuss that these pictures were taken from outer space by satellites.						
Explain the concept of orbit —any object in space that spins around the Earth.	4.6; p. 7					Science
Describe what a satellite is and how the images are used to create maps.						Science
Interpret the satellite image of Belize to identify its physical features.	1.12, 1.13; p. 5	1.17; p. 15				L. Arts
Understand the continuity of the land of Belize with its neighbours.	1.12, 1.13; p. 5			1.20; p. 5		
Locate the neighbouring countries of Belize and identify what physical features they share.	1.12, 1.13; p. 5			1.20; p. 5		
Locate Belize on a world map.	1.12; p. 5			1.20; p. 5		
Create a descriptive narrative or a poem expressing the beauty of Belize's land and sea.						L. Arts

3. PHYSICAL

pp. 4-5

After using the *Atlas of Belize* students will be able to:

Learning Outcomes/Objectives	Std II	Std III	Std IV	Std V	Std VI	C.Links
1. Use the title of the map, text, key, diagram, and pictures to describe the main physical characteristics of Belize's land, coast, waters, and the Barrier Reef System.	1.12, 1.13; p. 7	1.17; p. 15	1.18, 1.19; p. 23		4.2; p. 21	Language A.
2. Create descriptive narratives based on the interpretation of the information found on the physical map.						Language A.
3. Explain the perspective from which this map was created.						Math
4. Label the main physical features of Belize on a blank map.(rivers, mountains, peaks, coast, atolls, cayes, etc...)	1.2, 1.3; p. 7		1.18, 1.19; p. 23; 5.25; p. 9	1.20; p. 5; 5.25; p. 9		Language A.
5. Discuss the impact that Belize's geography has on human activity.			5.24; p. 27		4.2; p. 21; 5.30; p. 17	Language A.
6. Use the Key to describe the different heights of the land in Belize.	1.12; p. 7		1.19; p. 23			Math
7. Identify Belize's main rivers and locate their sources.						
8. Discuss the impact that rivers have always had on the life of Belizeans, on settlement patterns, and on the economy.			5.24; p. 27		5.30; p. 17	
9. Examine the importance that Belize's geography has on population distribution, transportation, and tourism.	5.19; p. 9	1.17; p. 15	5.24; p.27			
Recognize the impact that Belize's landscape had on the development of Maya Civilization,			2.4; p. 57			
10. Understand that the cross-section shows a variation in the contour of the land from the Maya Mountains to the Outer Barrier Reef.						Math

4. CLIMATE

pp. 6-7 (also 28-29)

After using the *Atlas of Belize* students will be able to:

Learning Outcomes/Objectives	Std II	Std III	Std IV	Std V	Std VI	C. Links
1. Differentiate between climate and weather .	p. 6	2.12; p. 19				Language A.
2. Understand how the latitude of Belize determines its climate.		2.12; p. 19			3.20; p. 13	Science
3. Examine the connection between the cold weather in places north of Belize and the north-east trade winds (northerners) on Belize's weather.		2.11; p. 19	2.17, 2.18; p. 25		3.20; p. 13	
4. Interpret the diagram and describe the water cycle .			2.15; p. 25			Science
5. Use the title, text, pictures, map, and Key to understand the distribution of rainfall in Belize.				2.19; p. 7		Language A.
6. Understand how the position of Belize's mountain ranges and hills influence rainfall distribution.					3.21; p. 13	Science
7. Understand how the cool breezes from the sea affect the temperature of the land along the coastal areas.		2.11; p. 19	2.17, 2.18; p. 25	2.20; p. 7	3.21; p. 13	
8. Understand how altitude above sea level affects the temperature of land.			2.17, 2.18; p. 25		3.21; p. 13	
9. Investigate the effect that Belize's climate and the weather, especially extreme weather (such as heavy rainfall, hurricanes , and drought), have on people, animals, buildings, the land, the road network, and the economy.		2.13; p. 19	2.16; p. 25	3.17, 3.18; p. 5	2.25; p. 13 2.23; p. 15	HFLE Science
10. Compare the nature of different natural disasters and the effects they have on Belize and neighboring countries.			2.16; p. 25			HFLE
11. Identify Belize as a country that lies on the hurricane belt and the need to be prepared for hurricanes.				2.22; p. 7	3.20; p. 13	HFLE

5. WATERSHEDS

pp. 8-9 (also 4-5 and 6-7)

After using the *Atlas of Belize* students will be able to:

Learning Outcomes/Objectives	Std II	Std III	Std IV	Std V	Std VI	C. Links
1. Use the title, text, and pictures to understand that water is essential for the life of humans, plants, animals, the economy, and many other human activities.					5.30; p. 17	Language A.
2. Analyze the importance of rivers and underground water to industry (including tourism), and agriculture .				6.16; p. 11	5.30; p. 17	
3. Categorize the most important rivers in Belize by region, their source and the districts they cross on their journey to the sea.	1.12; p. 5	1.14 p.15 1.15 p.15				
4. Recognize that water is a renewable resource .	5.14; p. 11	5.19 p.19				Language A. Science
5. Examine the text and diagram of water availability to understand everyone's rights to a clean and safe environment and to safe drinking water (UDHR CRC, Article 24).	1.10; p. 43	1.13 p.47	p. 48	2.15; p. 33		Language A.
6. Understand the water cycle.			2.15; p. 25			Language A. Science
7. Define what is a watershed .						Language A. Science
8. Explain why watersheds are important in providing us with clean water.	5.17; p. 11	5.20 p.19	5.22; p. 27		5.31; p. 17	Language A.
9. Explain what happens when watersheds become polluted.	5.17; p. 11		5.22; p. 27		5.32; p. 17	Language A Science.
10. Explain what happens when watersheds become deforested.	5.17; p. 11		5.22; p. 27		5.32; p. 17	Language A. Science
11. Recognize that Belize is divided into five main regions: the Northern, Central, Southeastern, Southern, and Gulf of Mexico.						

6. GEOLOGY

pp. 10-11 (also 4-5)

After using the *Atlas of Belize* students will be able to:

Learning Outcomes/Objectives	Std II	Std III	Std IV	Std V	Std VI	C. Links
1. Examine the title, text, and pictures, to understand the different kinds of materials under the soil.						L. Arts
2. Understand that Belize's subsoil is composed of many different types of materials.						
3. Understand that the subsoil materials determine the type of soil and the plants that grow in it.						Science
4. Recognize rocks, minerals and oil as non-renewable resources and the need of sustainable practices to extract them.	5.13, 5.14; p. 9	5.19; p. 19	5.22; p. 27	5.29 p.9	5.32; p. 17	Science
5. Illustrate some of the professions and industries that work on the extraction of resources from our subsoil.				5.25 p.9		
6. Recognize that some minerals, such as gold and oil, are very valuable and contribute to the economy of Belize.	5.18; p. 9			5.26 p.9		
7. Investigate the role mineral resources play in the social, political and economic development of Belize.					5.30; p. 19	
8. Describe how different resources are used locally and internationally.				5.25 p.9		
9. Insert Belizean mineral resources on a blank map and preserve for later use.	5.16; p. 9					
10. Explain the theory of Plate Tectonics and its effect on land and water.				4.28; p. 5	4.30; 4.33 p. 13	
11. Interpret the relationship between fault lines and earthquakes and volcanic eruptions.			2.16; p. 25	4.28; p. 5	4.30; 4.33 p.13	L. Arts
12. Show understanding of the nature of natural disasters which affect Belize, plus volcanic and earthquake activity that affect neighbouring countries.			2.16; p. 25			

7. ECOSYSTEMS & LAND USE

pp. 12-13

After using the *Atlas of Belize* students will be able to:

Learning Outcomes/Objectives	Std II	Std III	Std IV	Std V	Std VI	C. Links
<ul style="list-style-type: none"> Describe the consequences that result when the ecosystems of Belize are polluted or destroyed. 				5.29; p. 9		L. Arts. Science
<ul style="list-style-type: none"> Describe how plants, animals, and organisms work together to form an ecosystem. 						L. Arts. Science
<ul style="list-style-type: none"> Interpret the relationship between the Key (types of ecosystems) and the colours on the map. 	5.18 p.11					L. Arts
<ul style="list-style-type: none"> Distinguish the main characteristics of each of the ecosystems as represented on the map. 						
<ul style="list-style-type: none"> Locate where you live and describe the way the land is used. 						
<ul style="list-style-type: none"> Investigate the role resources play in the social, political and economic development of Belize. 					5.30 p.17	L. Arts.
<ul style="list-style-type: none"> Discuss some of the negative effects of introducing into an ecosystem “foreign” plants, animals, or other organisms that are not able to “live and work together.” 	5.17 p.11		p. 26			L. Arts. Science HFLE
<ul style="list-style-type: none"> Describe the various ways that children can pollute or damage the ecosystem. 		5.20 p.19				HFLE Science
<ul style="list-style-type: none"> Use the title, text, pictures, map, and Key to describe why the variety of Belize’s ecosystems are attractive to tourists. 			5.23; p. 27 6.14; p.29			L. Arts
<ul style="list-style-type: none"> Identify ways in which resources can be preserved or destroyed, develop the concepts of conservation and preservation and explain why these concepts should be practiced. 	5.17; p. 11			5.28, 5.29; p. 9	5.31, 5.32; p. 17	L. Arts
<ul style="list-style-type: none"> Classify resources of Belize under natural resources (e.g. mineral, marine, forest), and human resources. Further classify under renewable and non-renewable. 	5.13, 5.14; p. 11					
<ul style="list-style-type: none"> Insert the natural resources in your blank map of Belize and keep for later use 	5.16; p. 11	5.21; p. 19		5.25; p. 9		

8. POLITICAL

pp. 14-15

After using the *Atlas of Belize* students will be able to:

Learning Outcomes/Objectives	Std II	Std III	Std IV	Std V	Std VI	C. Links
1. Use the title, text, pictures, map, and Key to understand what it means to be a citizen of Belize.	2.1; p. 31	1.15 p.47	3.6, 3.7; p. 37			L. Arts
2. Understand that Belize has a democratic government and what this means.	2.1, 2.2; p.3 1	3.3 p.35	3.4; p. 37	p.24-25		L. Arts
3. Recognize that all children have rights and have a right to know their rights, among them the right to express their opinions, right to freedom of association and assembly, among others, as specified in the Belize Constitution.	1.10; p. 43 2.1; p. 31	1.15 p.47 3.4; p.37	3.6; p. 37		2.15 p.33	
4. Recognize and discuss the right to freedom of association and assembly.		1.15; p. 47				
5. Understand what it means that the Belize Constitution is the “highest law of the land.”		3.1 p.35	p. 36	4.1; p. 41		
6. Discuss the possible dangers and other problems that result when children’s rights are not respected or when children neglect to take advantage of their rights.		1.13, 1.14; p. 47 3.2, 3.3, 3.4; p. 36-37	3.6; p. 37			L. Arts
7. Use the Key to locate the international and district boundaries of Belize.				p.24-25		
8. Locate the Ports of Entry and define what this means.						
9. Distinguish between cities that have City Councils, towns that have Town Boards, Villages that have Village Councils and villages with Alcade system.	2.3, 2.4; p. 31					
10. Explain in which ways the location, size, and physical features and natural resources of each district have a direct influence, among other things, on population size and economic activity.						

9. POPULATION

pp. 16-17 (also 4-5 and 28-29)

After using the *Atlas of Belize* students will be able to:

Learning Outcomes/Objectives	Std II	Std III	Std IV	Std V	Std VI	C. Links
1. Using the title, text, pictures, map, scale and Key, explain why people may choose to live along the coast, rivers, or roads.			1.14, 4.6; p. 71		5.30; p. 17 1.14; p. 37	L. Arts
2. Identify villages and towns in which the dominant activity is tourism.	6.7; p. 13		6.13; p. 29		5.30; p. 17	
3. Use the Population Key to locate the cities, district capitals, and main towns.	2.3; p.31	4.6; p. 21	4.14; p. 31			
4. Understand that the Population Pyramid shows the distribution of the population by age and sex.						Math
5. Understand and discuss the effects that having a young population have on families, the economy and the services provided by government.						L. Arts
6. Discuss what are some of the reasons why the Toledo District has the lowest population rate in Belize.			4.6; p. 71			L. Arts
7. Discuss what it means that in Belize the number of people working to support the young and the old is very small.						L. Arts
8. Discuss and explain how one should behave towards other people to show respect for human rights and culture.	2.13 p.45					L. Arts
9. Analyze the impact of sharing borders with a densely populated country, such as Guatemala.						L. Arts
10. Understand the positive and adverse impact that industries may have on people, communities, and the environment.			5.24; p. 29		6.19; p. 19 5.32; p. 19	L. Arts
11. Understand the positive and negative effects that job opportunities, education, emigration, among other factors, have on population distribution.						L. Arts
12. Recognize the various ways in which the physical characteristics of the land affect human settlement and human activities.						L. Arts

10. COMMUNICATIONS

pp. 18-19

After using the *Atlas of Belize* students will be able to:

Learning Outcomes/Objectives	Std II	Std III	Std IV	Std V	Std VI	C. Links
1. Use the title, text, pictures, diagram, map, and Key to understand the different types of communication and systems of transport .						L. Arts
2. Understand the difference between communications and systems of transportation.			6.14; p. 29			L. Arts
3. Understand the different ways that the people in Belize communicate with each other and the rest of the world.						L. Arts
4. Understand the importance of a good communication and transportation system in our economy.				5.27; p. 9		L. Arts
5. Be able to read and interpret the map Key.						
6. Be adept in the use of the Scale to estimate distances between two points in different maps.						
7. Develop an awareness of the need for knowing and following traffic rules.	2.9; p. 33					L. Arts
8. Identify and be able to describe the meaning and uses of Seaport, Lighthouse, and Private Airstrip.						L. Arts
9. Recognize that settlement patterns have an effect on the transportation system and vice-versa.			1.14; p.71	5.25; p. 9	5.30; p. 17	L. Arts
10. Understand how a stable and affordable communication and transportation systems facilitate our enjoying and exercising of our human rights.	1.10; p. 43					L. Arts
11. Develop an awareness of the impact extreme weather (dry and wet) has on the communications and transportation systems.	2.9; p. 8	2.11; p. 22 2.13; p. 19	2.16; p. 25			L. Arts HFLE
12. Be able to identify transportation infrastructure used for international trade and Belize's main ports of entry for imports and exports .				5.26; p. 9 6.17; p. 11	5.34; p. 17	

II. ECONOMY

pp. 20-21

After using the *Atlas of Belize* students will be able to:

Learning Outcomes/Objectives	Std II	Std III	Std IV	Std V	Std VI	C. Links
1. Use the title, text, pictures, bar graph, map, and Key to understand the distribution and kinds of economic activity in Belize.						L. Arts
2. Understand the meaning of imports and exports.		6.13; p. 29		5.26; p. 9	5.34; p. 17	L. Arts
3. Understand that for a healthy economy, the value of a country's exports should be equal or more than the value of what it imports. This is called the Balance of Payment.						
4. Describe how different resources are used locally, and also exported.				5.26; p. 9		L. Arts
5. Decode the symbols on the map Key to describe how these industries contribute to the economy. Relate to the chart.		6.14; p. 29		6.17; p. 11	5.30; p. 17	Math
6. Understand the relationship between Belize's physical environment and different economic activities.					5.30; p. 17	L. Arts
7. Identify natural and human-made resources.	5.13; p. 9					L. Arts
8. Discuss the impact, both positive and negative, that industries have on people, communities, the environment, the transportation system, and to other industries.	6.7; p. 11		5.24; p. 27		5.32; p. 17	L. Arts
9. Identify primary , secondary , and tertiary sectors of the economy and main locations by district.				5.21; p. 19		L. Arts
10. Understand that conservation and preservation efforts affect tourism and other industries.			5.23; p. 27			L. Arts
11. Understand and assess the importance that the tourism industry has on employment, job opportunities, business taxes , government revenue , infrastructure , and government policy.			6.13; p. 29			L. Arts

12. PROTECTED AREAS

pp. 22-23

After using the *Atlas of Belize* students will be able to:

Learning Outcomes/Objectives	Std II	Std III	Std IV	Std V	Std VI	C.Links
1. Understand that Protected Areas were created to ensure that Belize and its people, now and in future generations, are safe from destructive activities.	6.9; p. 13			5.28; p. 9	5.31; p. 17	Science HFLE
2. Understand that many Protected Areas were established in response to the needs of the community and are often managed by them.						Language A. HFLE
3. Understand the meaning and characteristics of each of the Protected Areas.				6.17; p. 11		Science
4. Understand why everyone who conserves and protects the environment contributes to the overall health of the people and to a sustainable Belizean economy.						HFLE Science
5. Understand the relationships between the renewable and non-renewable resources in regards to the ways the Protected Areas are used.	5.14; p. 11					Science
6. Understand and discuss the short and long-term effects of de-reserving some of the extractive reserves .						Science Language A.
7. Extrapolate the information from the pie chart to the map, focusing on the amount of protected and unprotected areas.						Math
8. Analyze the concepts of conservation and preservation and explain why these concepts should be practiced.				5.29; p. 9	5.32; p. 17	Science
9. Explain how the conservation and preservation efforts have an impact on specific areas and how they affect the health of Belize's flora and fauna that are endangered .		5.20; p. 19				Science
10. Identify ways in which resources can be either preserved or destroyed.	5.17; p. 11			5.29; p. 9	5.32; p. 17	Science

13. HISTORY

pp. 24-25; (also 30-31)

After using the *Atlas of Belize* students will be able to:

Learning Outcomes/Objectives	Std II	Std III	Std IV	Std V	Std VI	C. Links
1. Understand that throughout history Belize has been settled by different groups.	2.2; p. 53		1.15; p. 71			L. Arts
2. Explain the role natural resources played in the historical, social, political and economic development of the country.		2.4; p. 56		5.25; p. 9		L. Arts
3. Recognize that Belize's history began with the Maya and their presence in Belize has been continuous.		pp. 52, 56	1.15; p. 71		6.16; p. 43	L. Arts
4. Realize that, except for the Maya, all the other groups in Belize have their origins in other parts of the world.	pp. 62, 65					L. Arts
5. Understand that African people were brought to Belize as slaves to work mostly in the logging industry.						L. Arts
6. Explain why the Maya and the Africans resisted colonialism in Belize and Africa respectively.			6.4; p. 61		6.15; p. 43	L. Arts
7. Explain the Maya's claim on parts of Belize's northwest between 1840 – 1900 and the impact of Maya resistance against British colonialism in Belize.					6.13; 6.14, p. 43	L. Arts
8. Understand that many Mestizos and Maya fled the Guerra de Castas in Yucatan and found refuge in Belize.					6.10; p. 43	L. Arts
9. Discuss the major events from Colonization to Independence .				4.2; 4.3, p. 21		L. Arts
10. Discuss the meaning of colonialism and importance of independence.						L. Arts
11. Create descriptive narratives based on the information found on the historical map.						L. Arts
12. Construct a timeline to show the arrival of each major ethnic group in Belize.			4.8; p. 71			
13. Discuss that over time the interaction and intermarriage between various ethnic groups resulted in the multi-ethnic, multicultural, multi-racial society in which everyone considers themselves as one people.		1.13; p. 69 1.12; p. 69				L. Arts
14. Understand that one of the factors that influence climate is related to having a good forest cover .		2.12; p. 21				Science HFLE
15. Understand that living in a safe environment is a basic human right that is guaranteed by Chapter 2 in the Belize Constitution, and all—from government officials to children—have a responsibility to keep all areas of Belize safe.						Language A. Science HFLE
16. Understand that conservation and preservation efforts have an impact on tourism and on the sustainable development of other industries.			5.23; p. 29			Language A.

Learning Outcomes/Objectives	Std II	Std III	Std IV	Std V	Std VI	C. Links
17. Analyze the impact that some industries, such as the citrus, aquaculture, and oil industries, have on the environment and the health of the people of Belize.						
18. Discuss some of the negative effects to the environment when “foreign” plants, animals, or other organisms are introduced into an ecosystem.			p. 26			Language A HFLE

14. OUR NATIONAL SYMBOLS

pp. 26-27

After using the *Atlas of Belize* students will be able to:

Learning Outcomes/Objectives	Std II	Std III	Std IV	Std V	Std VI	C. Links
1. Assess how adequate the service industries —accommodation, immigration, transportation, communications, entertainment, shopping etc... are in relation to the volume of tourists that visit Belize (or your district).	6.7; p. 11 6.9; p. 11		6.14; p. 14			L. Arts
2. Discuss the importance that agriculture, aquaculture, citrus, marine, and oil industries, for example, have on the economy and on your district.			5.24 p.27			L. Arts
3. List some of Belize's renewable and non-renewable resources and identify industries on which they rely.	5.14 p.9					L. Arts
4. Discuss some of the negative effects to the economy when "foreign" plants, animals, or other organisms are introduced into an ecosystem.			p. 26			L. Arts HFLE
5. Explain the role that national resources have in the social, political and economic development of the country.				5.25; p. 9		L. Arts

15. CENTRAL AMERICA & CARIBBEAN

pp. 28-29

After using the *Atlas of Belize* students will be able to:

Learning Outcomes/Objectives	Std II	Std III	Std IV	Std V	Std VI	C. Links
1. Locate Belize in the Central America and Caribbean regions.	I.12; p. 7	I.15; p. 15				
2. Identify the countries of Central America and their capitals.	I.12; p.7	I.15; p. 15		I.20; p. 5		
3. Identify the major countries of the Caribbean and their capitals.	I.12; p. 7	I.15; p. 15				
4. Compare and contrast the information found on the Area and Population Graphs.						Math
5. Locate the Panama Canal and explain the benefits of the Panama Canal to trade.	I.12; p. 7	I.15; p. 15				L. Arts
6. Trace the likely route that the Garifuna people had to travel when they were deported from the island of St. Vincent's to Honduras and when they migrated to Belize and other countries in Central America.	I.12; p. 7	I.15; p. 15 4.4; p. 67	I.15; p. 71			
7. Identify the three neighboring countries of Belize where the ancient Maya people lived and continue to live.	I.12; p. 7	I.15; p. 15	I.15; p. 71			
8. Identify the part of Mexico from where the Maya and Mestizo fled to Belize during the Caste Wars.	I.12; p. 7	I.15; p. 15 4.4; p. 67	I.15; p. 71		6.10; p. 43	
9. Understand that on the map, the pictures are represented with symbols.						Math
10. Track a hurricane on a blank map of the Caribbean.			p. 24			Math
11. Relate the population figures on the pie chart to the size of the countries.						Math
12. Estimate the distances between Belize and Havana, Kingston, Cape Gracias a Dios, the Bay Islands, and St. Vincent.	I.12 p.7	I.15 p.15				Math
13. Apply scale to distances between two points.						Math
14. Locate the road that links all the Central American countries.						
15. Label a blank map with Central American and Caribbean countries and their capitals.				I.20; p. 5		

16. THE WORLD

pp. 30-31 After using the

Atlas of Belize students will be able to:

Learning Outcomes/Objectives	Std II	Std III	Std IV	Std V	Std VI	C. Links
1. Locate Belize in the Northern and Western Hemispheres.		1.15; p.15		1.20; p.5	3.19; p.13	
2. Label a blank map with continents and oceans . Locate Belize.		1.15; p.15		1.20; p.5		
3. Be able to relate pictures of physical features to elements on a map.		1.15; p.15				
4. Compare the highest peak in Belize with the world's tallest mountains.		1.15; p.15				L. Arts Math
5. Name some of the largest countries in the world.		1.15; p.15				
6. Locate the countries on the map that are shown in the pictures.		1.15; p.15				
7. Learn the capitals of five countries on each continent.		1.15; p.15				
8. List five countries that are located along the Equator.		1.15; p.15			3.19; p.13	
9. List ten countries that are between the Tropic of Cancer and the Tropic of Capricorn.		1.15; p.15			3.19; p.13	
10. Use the Geographic Coordinates to locate these countries on the world map.		1.15; p.15		3.16; p.5	3.19; p.13	Math
11. Understand that the revolution of the Earth around the sun and the tilting of the Earth on its axis are responsible for the warm/hot climate in the tropics.		4.17; p.17 3.9; p.15		3.17; p.5	3.20; p.13	L. Arts Science
12. Describe the type of weather of the countries between the Tropic of Cancer and the Tropic of Capricorn.			2.18; p.25	1.20; p.5 3.17; p.5	3.19, 3.20; p.13	L. Arts Science
13. Discuss some of the reasons that the climate in the countries of the tropics might vary.			2.18; p.25	3.17; p.5	2.23; p.13	L. Arts Science
14. Trace the travel route of the African slaves from Western Africa, first to Jamaica and then Belize.			1.15; p.71 6.3; p.61			
15. Trace the likely route of the Chinese and Taiwanese to Belize.		1.15; p.15	1.15; p.71			
16. Trace the likely route of the East Indians from India to the British West Indies and to Belize.		1.15; p.15	1.15; p.71			
17. Illustrate and discuss trading partners and export-import trade routes.		1.15; p.15		5.26; p.9		L. Arts

Teacher's Workshop

Cubola Productions and Ministry of Education

August 2013

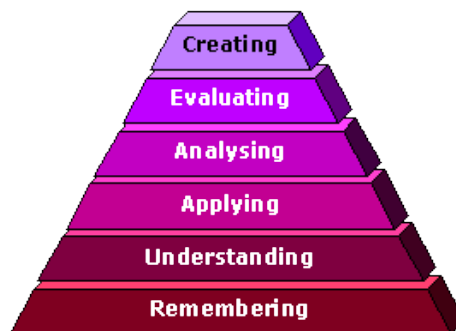
Bloom's Taxonomy

In 1956, Benjamin Bloom headed a group of educational psychologists who developed a classification of levels of intellectual behavior important in learning. During the 1990's a new group of cognitive psychologists, led by Lorin Anderson (a former student of Bloom's), updated the taxonomy reflecting relevance to 21st century work. The graphic is a representation of the NEW verbiage associated with the long familiar Bloom's Taxonomy. Note the change from Nouns to Verbs to describe the different levels of the taxonomy.

Note that the top two levels are essentially exchanged from the Old to the New version.

Remembering: can the student?	define, duplicate, list, memorize, recall, repeat, reproduce state
Understanding: can the student explain ideas or concepts?	classify, describe, discuss, explain, identify, locate, recognize, report, select, translate, paraphrase
Applying: can the student use the information in a new way?	choose, demonstrate, dramatize, employ, illustrate, interpret, operate, schedule, sketch, solve, use, write.
Analyzing: can the student distinguish between the different parts?	appraise, compare, contrast, criticize, differentiate, discriminate, distinguish, examine, experiment, question, test.
Evaluating: can the student justify a stand or decision?	appraise, argue, defend, judge, select, support, value, evaluate
Creating: can the student create new product or point of view?	assemble, construct, create, design, develop, formulate, write.

Richard C. Overbaugh, Lynn Schultz, Old Dominion University



Select words for discussion with the class that allow the teacher to decide if the child m\remembers, understand, can apply the new material or concept, analyze it, evaluate it and create with it.

Retrieved from the web on July 14, 2011

http://www.bgfl.org/custom/resources_ftp/client_ftp/ks3/ict/multiple_int/what.cfm

What are Multiple Intelligences

[What are Multiple Intelligences?](#) | [Take a Test](#) | [Results](#) | [Notes](#)

It has been claimed by some researchers that our intelligence or ability to understand the world around us is complex. Some people are better at understanding some things than others.

For some of us it is relatively easy to understand how a flower grows but it is immensely difficult for us to understand and use a musical instrument. For others music might be easy but playing football is difficult.

Instead of having one intelligence it is claimed that we have several different intelligences. These are listed below:

Kinaesthetic - Body Smart

Linguistic - Word Smart

Logical - Number Smart

Interpersonal - People Smart

Intrapersonal - Myself Smart

Musical - Music Smart

Visual/Spatial - Picture Smart

Naturalistic - Nature Smart

What special intelligences do you have? You can find out by **answering a few simple questions.**

Kinaesthetic - Body Smart

[« back to top](#)

You may be body smart. You will enjoy sports and are good at swimming, athletics, gymnastics and other sports. This is sometimes called being Kinaesthetic smart.

Linguistic - Word Smart

[« back to top](#)

You may be word smart. You will enjoy reading, writing and talking about things. This is sometimes called being Linguistic smart.

Logical - Number Smart

[« back to top](#)

You may be number smart. You will be good at mathematics and other number activities; you are also good at solving problems. This is sometimes called being Logical smart.

Interpersonal - People Smart

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You may be people smart. You will like to mix with other people and you will belong to lots of clubs. You like team games and are good at sharing. This is sometimes called being Interpersonal smart.

Intrapersonal - Myself Smart

[« back to top](#)

You may be myself smart. You will know about yourself and your strengths and weaknesses. You will probably keep a diary. This is sometimes called being Intrapersonal smart.

Musical - Music Smart

[« back to top](#)

You may be music smart. You will enjoy music and can recognise sounds, and timbre, or the quality of a tone. This is sometimes called being Musical smart.

Visual/Spatial - Picture Smart

[« back to top](#)

You may be picture smart. You will be good at art and also good at other activities where you look at pictures like map reading, finding your way out of mazes and graphs. This is sometimes called being Visual/Spatial smart.

Naturalistic - Nature Smart

[« back to top](#)

You may be nature smart. You will like the world of plants and animals and enjoy learning about them. This is sometimes called being Naturalistic smart.

http://www.bgfl.org/custom/resources_ftp/client_ftp/ks3/ict/multiple_int/what.cfm

Learning Styles Solutions

Please go over these sections to see ideas on suggestions you might make for the different learning styles you discover Learning Styles Solutions

Each of the next six sections focuses on one learning style. Turn to the sections that feature your preferred learning styles to find general suggestions for taking advantage of the ways you learn best. Read about any learning style in which you had three or more check marks. These are your strongest learning styles and you should use them whenever you can.

Reading

If reading is one of your preferred learning styles, you take in, store, and retrieve information more easily when you can see it and read it for yourself. Below are some general suggestions for how to take advantage of this style.

- Read a chapter before you listen to the lecture on it. Read a book or article about a topic instead of attending a lecture.
- When you watch demonstrations, take good written notes. Later you can refresh your memory by reading your notes.
- Get information for reports by reading instead of watching videos or listening to speeches
- Read your notes, study guides, and flash cards over and over again.
- Back up what you hear by taking notes that you can refer to again.
- Read directions instead of having someone tell you how to do something.
- Read information yourself instead of having someone read it to you.
- Look up words you know the meaning of in a dictionary instead of asking someone what they mean. You'll be more likely to remember the meanings.
- Make travel plans by reading maps and travel guides.
Choose a job that requires more reading than listening.

Writing

If writing is one of your preferred learning styles, you take in, store, and retrieve information more easily when you write it down. Below are some general suggestions for how to take advantage of this style.

- “Pencil read” by reading with a pen/pencil in hand. Underline and take notes as you read. “Talk to yourself” in writing.
- Take good lecture notes.
- Recopy your lecture notes in your own handwriting.
- Choose to do written reports instead of giving speeches whenever possible.
- Write down the steps you need to follow in order to complete a project.
- Keep track of your schedule with a calendar system and write down commitments.
- Write lists of things you need to do.
- Carry a small notebook with you, so you can take notes to remember what you have read or heard.
- Write people letters instead of calling them on the telephone.
Choose a job that involves more writing than listening or speaking.

Listening

If listening is one of your preferred learning styles, you take in, store, and retrieve information more easily when you hear it. Below are some general suggestions for how to take advantage of this style.

Never miss a class. Listening to the information you have read about will help you to understand it better.

- Listen to information about a topic on videotape, TV, or an audiotape.
- Tape a lecture, so you can listen to it again.
- Read out loud the information you are studying.
- Interview people about the subject you are studying.
- Have another student read his or her notes to you.

- Study with other people. Discuss ideas and give each other oral tests.
- Discuss your notes, directions, or manuals out loud with yourself.
- Use a tape recorder to quiz yourself.
- Repeat information out loud after hearing it.
- Have someone read your tests to you or read them out loud to yourself.
- Call people on the telephone instead of writing to them.
- Choose a job in which listening plays an important part.

Speaking

If speaking is one of your preferred learning styles, you take in, store, and retrieve information more easily when you talk about it. Below are some general suggestions for how to take advantage of this style.

- Don't miss classes. You can ask questions about what is said.
- Dictate into a tape recorder what you need to write or study.
- Ask yourself questions out loud while you are studying.
- Study information by saying it out loud and discussing it with yourself.
- Study with other people, so you can discuss the information.
- Study for a quiz by asking questions out loud and answering them.
- Choose to give a speech rather than do a written report whenever possible.
- Repeat things right after you hear them to help you remember them.
- Calm your nerves by saying positive things to yourself.
- Call people on the telephone instead of writing them.

- If you are having trouble spelling a word, spell it out loud before you write it.
- Choose a job that requires speaking rather than writing.

Visualizing

If visualizing is one of your preferred learning styles, you take in, sort, and retrieve information more easily if you can picture something in the mind's eye. Below are some general suggestions for how to take advantage of this style.

- Close your eyes and practice “seeing” what you need to remember.
- Watch movies or videos on a subject, so you will have an easier time “seeing” the information again.
- As you read something, picture how it would look if you were seeing it in a movie.
- As you study diagrams and maps, close your eyes and “see” them again.
- Take special note of the shape of things you want to remember.
- Solve simple math problems by visualizing the numerals.
- Close your eyes and “see” a word you need to spell before you write it.
- Calm your nerves by picturing yourself calm and in control in that particular situation.
- Remember telephone numbers by studying them until you can “see” them in your mind's eye.
- Visualize your tasks on the job to more clearly understand what you need to do.
- For the visual learner, color coding notes, highlights and study materials help to organize material.

Manipulating

If manipulating is one of your preferred learning styles, you take in, sort, and retrieve information more easily if you can handle things and/or change your environment. Below are some general suggestions for how to take advantage of this style.

- Build models of hard-to-understand concepts.
- Experiment by doing things you read about.
- Watch someone do what you need to learn before trying it.
- Type a research paper on a typewriter or computer.
- Watch demonstrations instead of reading or hearing about them.
- Visit a place you are learning about.
- Given a choice, build a project rather than write a report about it.
- Do math problems with an abacus or with objects you can move.
- Make sure your work area allows you move around while you study.
- Be flexible with your time schedule, so you can change plans and expectations when you need to.
- Choose a job that allows you work with your hands and to move around.

Now that you understand something about learning differences, you are better equipped to help students by teaching to their particular styles of learning. You do not need to test a student to know their styles. Rather, review all of the suggestions for learning styles above and be prepared to vary your approaches to helping students with material. In fact, as much as possible, use methods that involve multisensory learning. Keep in mind that we all remember much better with active learning methods. In other words, it is much better to do than observe silently or read passively. It is also much better to change the format of learning from one mode to another. This is why actually teaching the material helps you remember. If not teaching, then try to change the format. Change reading to listening or explaining, such as with a study group, or change listening in class to creating a model applying the material outside of class. Or, summarize your notes out loud without first reviewing them, and only then review them, searching for information you did not include in your summary.

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Conceptual Map

Belize

Located in the Caribbean
coast of Central America



Here we find

**Relief
of diferent kinds**



mountains and plains
The Maya Mountains **The Coastal Plains**



the coast
With points (capes), gulfs and peninsulas

Rivers and lagoons



Many rivers mostly draining in the Caribbean Sea
Longest river the Belize River

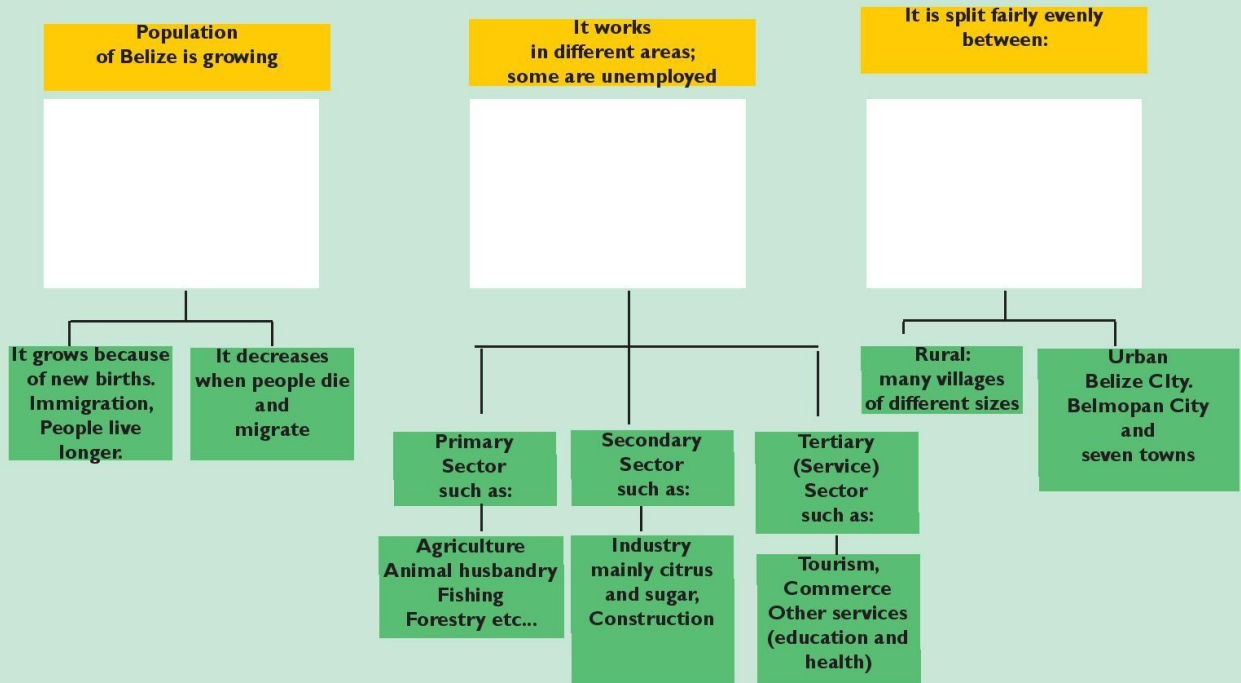
Barrier Reef Atolls and Cayes



Longest reef in the Western Hemisphere,
three atolls and thousands of cayes

Concept Map

Belize's Population



Train the Trainers Workshop
Cubola Productions and Ministry of Education
July 2011

Cross-curricular links

Expressive Arts

- colouring
- colour coding
- designing
- drawing
- fine motor skills
- singing in tune
- sketching
- using lines and diagrams
- using colours
- using lines to create diagrams
- using lines to create images
- using shapes

HFLE (Health, Family Life Education)

- caring for others
- caring for pets
- conserving the environment
- respecting rights
- practicing safety rules
- taking care of our bodies
- Language Arts
- building vocabulary
- communicating orally
- creating images
- describing location
- describing past events
- describing scenes
- dramatizing a tourist
- forming letters
- listening
- listening and speaking
- listening for details
- observing pictures for details
- oral expression
- recognizing letters
- recognizing syllables

- responding to questions
- speaking
- speaking about different ethnic groups
- viewing
- writing

Math

- counting
- recognizing numbers
- Physical education: coordinating activities
- Science
- caring for the environment
- germinating a seed
- naming the Sun and the Earth
- preserving the environment
- recognizing difference between day and night
- recognizing some parts of a plant

Social Studies: map skill

Spanish: building vocabulary

SKILLS ANALYSIS

- analyze family role and positive family environment
- identify changes

COMMUNICATION

- describe how to care for the environment
- describe neighborhoods/ describing responsibilities
- explain the importance of the right to an education
- discuss main idea
- observe details
- observe geographical shapes
- orally describe geographical shapes
- respond appropriately to questions
- share ideas and opinions

COMPARE & CONTRAST

- abusive events
- safe and unsafe practices
- pictorial representations

CRITICAL THINKING

- compare and contrast
- differentiate between rights and responsibilities
- differentiate roles
- focus on abilities of all people
- form reasonable conclusions
- identify roles

EXERCISING DEMOCRATIC RIGHTS

- express themselves
- share views and opinions

FINDING FACTS & INFORMATION

- compare & contrast family types
- describe scenes
- identify important facts
- interpret ideas
- locate pictorial representations
- orally discuss
- sequence ideas

FINE MOTOR SKILLS

- design a collage

LISTENING SKILLS

- listen to ideas and opinions

LOCATION

- identify cardinal location
- identify specific locations

MAKING EVALUATIONS

- compare and contrast pictures
- describe factors that affect learning
- differentiate between responsibilities at home and at school

MAKING INFORMED DECISIONS

- apply rules within classroom and community
- conserve water and electricity

MAP SKILLS

- identify places on a map
- locate places on a map
- observe geographical shapes

OBSERVATION

- observe and discuss pictures
- observe details
- observe locations/geographical shapes/
- describe physical characteristics and places in the neighborhood

ORAL COMMUNICATION/ORAL EXPRESSION

- communicate orally with others
- describe persons and places

ORAL PRESENTATION

- describe events

READING CONTEXT CLUES

- infer from written text

READING FOR CONTENT

- identify key information
- identify rights and responsibilities
- read charts
- describe images

RECOGNIZE

- Maya contributions to Belize's workforce

SEQUENCING

- Organize