



Intercultural understanding: Exploring Muslim contexts to extend learning

Sample PYP and MYP planners

Contents

Introduction to the project	5
Description of the project	7
Guidance for using this resource in schools	8
PYP samples	10
MYP samples	37
Appendix 1	69
Appendix 2	70
Appendix 3	71



The IB mission statement

The International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect.

To this end the organization works with schools, governments and international organizations to develop challenging programmes of international education and rigorous assessment.

These programmes encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right.



The Aga Khan Development Network

The Aga Khan Development Network (AKDN) is a group of private, non-denominational development agencies working to empower communities and individuals to improve living conditions and opportunities, especially in sub-Saharan Africa, Central and South Asia, and the Middle East. The Network's nine development agencies focus on social, cultural and economic development for all citizens, regardless of gender, origin or religion. The AKDN's underlying ethic is compassion for the vulnerable in society. AKDN operates some 300 schools in the developing world, including a growing number of IB World Schools.

The Aga Khan Academies, an integrated network of schools dedicated to expanding access to education of an international standard of excellence, are planned for key locations in Africa and Asia. Based on the conviction that home-grown intellectual leadership of exceptional calibre is the best driver of a society's future development, they will offer IB programmes to educate young men and women of promise from primary through higher secondary education.

The IB learner profile

The aim of all IB programmes is to develop internationally minded people who, recognizing their common humanity and shared guardianship of the planet, help to create a better and more peaceful world.

IB learners strive to be:

Inquirers	They develop their natural curiosity. They acquire the skills necessary to conduct inquiry and research and show independence in learning. They actively enjoy learning and this love of learning will be sustained throughout their lives.
Knowledgeable	They explore concepts, ideas and issues that have local and global significance. In so doing, they acquire in-depth knowledge and develop understanding across a broad and balanced range of disciplines.
Thinkers	They exercise initiative in applying thinking skills critically and creatively to recognize and approach complex problems, and make reasoned, ethical decisions.
Communicators	They understand and express ideas and information confidently and creatively in more than one language and in a variety of modes of communication. They work effectively and willingly in collaboration with others.
Principled	They act with integrity and honesty, with a strong sense of fairness, justice and respect for the dignity of the individual, groups and communities. They take responsibility for their own actions and the consequences that accompany them.
Open-minded	They understand and appreciate their own cultures and personal histories, and are open to the perspectives, values and traditions of other individuals and communities. They are accustomed to seeking and evaluating a range of points of view, and are willing to grow from the experience.
Caring	They show empathy, compassion and respect towards the needs and feelings of others. They have a personal commitment to service, and act to make a positive difference to the lives of others and to the environment.
Risk-takers	They approach unfamiliar situations and uncertainty with courage and forethought, and have the independence of spirit to explore new roles, ideas and strategies. They are brave and articulate in defending their beliefs.
Balanced	They understand the importance of intellectual, physical and emotional balance to achieve personal well-being for themselves and others.
Reflective	They give thoughtful consideration to their own learning and experience. They are able to assess and understand their strengths and limitations in order to support their learning and personal development.

Introduction to the project

The IB programmes provide learners with opportunities to reflect on human commonality, diversity and multiple perspectives. The opening sentence of the learner profile informs us, “the aim of all IB programmes is to develop internationally minded people who, recognizing their common humanity and shared guardianship of the planet, help to create a better and more peaceful world.”¹ This might imply more than tolerance and sensitivity to other cultures: while these qualities are indeed necessary, they are not sufficient. In the 21st century, we need to develop knowledge and confidence in our own identities and also to know about, and understand, cultures other than our own. As educators it is our responsibility to plan a curriculum through which learners discover how many diverse cultures over time and space contributed varied and valuable perspectives and achievements towards human development. Through their study, teachers and students continue learning about themselves and others.

Given the current learning gap resulting in a “clash of ignorances”² between Western and Muslim cultures, it is important that IB students have the opportunity to learn about, and appreciate, the diversity of Muslim histories and cultures, “a hugely diverse collectivity of civilisations that have developed, and continue to evolve, in response to multiple societal influences—agricultural and rural, commercial and urban, scientific and philosophical, literary and political. Just like other great traditions, the Islamic world cannot be understood only by its faith, but as a total picture whose history is closely tied to that of the Judeo-Christian world.”³

A pilot project has been developed and funded through a joint partnership between the International Baccalaureate (IB) and Aga Khan Development Network (AKDN). It responds to a need specified by schools and educators for concrete examples to enhance student understanding of Muslim cultures and contexts.

The focus of this pilot project is not to teach about Islam as a religion but rather to illustrate how understanding both historical and contemporary Muslim cultures can contribute to, and enhance the understanding of, central ideas and significant concepts taught in IB World Schools. This model may be transferred to other cultural contexts to help students appreciate the diversity of the human experience and our common humanity.

There are few easily accessible resources on Muslim history and cultures available for teachers to use in the classroom and this document is an attempt to develop these resources within the structure and organization of IB programmes. The aim of the project is to generate sample teacher support materials that integrate aspects and perspectives reflecting Muslim history and cultures, thereby stimulating interest in, and with the hope of expanding knowledge and understanding of, Muslim cultures.

The Primary Years Programme (PYP) and Middle Years Programme (MYP) sample units developed in this project orient learning towards the exploration of, and reflection on, the nature of culture as a dynamic framework on which people build individual and community identity. This approach develops learners’ appreciation for the world’s rich diversity of cultures and understanding that all cultures are internally diverse and fluid, and that dialogue within and across cultures is essential.

¹ *IB Learner Profile Booklet*, published November 2008, updated January 2009

² His Highness the Aga Khan, Peterson Lecture, Atlanta, USA, 18 April 2008

³ Keynote Address at the Governor General’s Conference on Leadership and Diversity, Gatineau, Canada, 19 May 2004

In this context, the units developed in this project highlight how Muslim cultures have contributed to the richness of our humanity over time and space. This emphasis should not exclude, however, the exploration of other cultural influences and expressions, particularly the specific context of each school and, of course, of its individual students. All young people need to develop a sense of identity and place in the world that prepares them for the people and cultures they will encounter in an increasingly globalized society. Walker (2006) refers to the education of the global citizen as "much more than exposure to many nationalities, learning about multiple cultures, or even immersion in other languages. It requires giving students the outlook and skills that equip them with mental flexibility and a basic respect for perspectives other than their own."⁴

⁴ Walker, George, *Educating the Global Citizen*, John Catt Education Ltd, August 2006

Description of the project

This pilot project was initiated in July 2008. As a pilot project for both organizations it was limited in scope during the trialling process. The project's objectives were to:

- enhance existing PYP planners and MYP units of work developed in schools by integrating aspects and perspectives that reflect Muslim history and cultures, to support teachers in their classroom practice
- develop models of good practice to support the mission of the IB and the AKDN
- develop a publication to be available to the IB community and Aga Khan Academies and schools through the OCC
- model collaborative planning and reflection in the development of curriculum
- model a process whereby enhanced understanding of a specific cultural context can enrich the development of curriculum resources
- develop resources about history and cultures that are globally transferrable.

An important aspect of this pilot project involved modelling the process by which existing school resources can be collaboratively enhanced by adding specific cultural dimensions. The teachers selected for this project engaged in effective collaborative planning teams for PYP and MYP, guided by each programme's planning document. That collaboration continued within a virtual environment after they had returned to their schools.

Participants in the project used a diagram developed by the Aga Khan Academies with the help of experienced IB educators as a way of summarizing and organizing conceptual elements of an exploration of cultures, as well as the scope (from personal to global) of the contexts in which these concepts can be explored⁵. This visual summary can be used by teachers in the planning of individual units of work and/or projects and learning engagements as well as in collaborative planning and reflection on their own school curriculum.

⁵ see "Cultures Diagram" attached in Appendix 2

Guidance for using this resource in schools

This document was developed by teachers for teachers and is designed for practical application in classrooms around the world. The introduction defines the context and the scope of the project. This is essential reading for teachers integrating any of the resources into their curriculum as it provides background information for understanding of how the project and resources evolved.

Subsequent sections include examples of PYP planners and MYP units of work. The beginning of each planner/unit contains a rationale developed by the teachers. This includes: the school context in which it was developed; its place in the school/local/national curriculum; the process of development; the exploration of Muslim perspectives; reflections on transferability to other school contexts.

As each of these planners or units of work reflects a specific school context, teachers will need to modify learning activities and assessments, maintaining the spirit of the central idea or significant concept while meeting the needs of their own students.

The resources included in this document may provide some direction for teachers who are unfamiliar with the diversity of Muslim cultural and historical contexts, “although we obviously need some basic background knowledge, our expertise comes not from the knowledge base but from our ability to acquire information, distinguish good sources from bad, reliable from unreliable, and information from opinion or wilful manipulation of facts.”⁶

The main areas of focus in these planners and units are listed below.

- PYP (4–5 years): **Where we are in place and time:** Learning more about the places we live in, and visit, helps us make sense of our experiences.
- PYP (9–10 years): **Where we are in place and time:** Exploration and discovery brought change to people and places.
- PYP (9–10 years): **How we express ourselves:** People express their beliefs and values through art.
- PYP (10–11 years): **How we express ourselves:** People express their traditions and beliefs through rituals and celebrations.
- PYP (10–11 years): **Where we are in place and time:** Human migration is a response to challenges, risks and opportunities.
- MYP year 2: **Visual arts:** Mapping my dreams—how art can inspire life journeys.
- MYP year 4: **Sciences:** The sum of the parts—curiosity of the ancients still shapes how we understand the world today.
- MYP year 5: **Interdisciplinary (humanities and arts):** State of the nation—defining boundaries in geography, culture and community.

It is important to note that these resources are works in progress and the reflections concluding each resource provide insights into how the planner or unit of work can be further developed.

⁶ Roberts, Boyd. *Educating for Global Citizenship*, IB, March 2009, p. 73

The IB invites teachers to give feedback on these planners and units. The feedback can be posted on the online curriculum centre (OCC). This input will inform future developments of the pilot project in collaboration with both organizations. "As we move into the future, we would like to collaborate with the International Baccalaureate movement in a challenging, but inspiring new educational adventure. Together, we can shape the very definition of a well-educated global citizen."⁷

⁷ His Highness the Aga Khan, Peterson Lecture, 18 April 2008

Example 1

Transdisciplinary theme: *Where we are in place and time*

Central idea: *Learning more about the places we live in, and visit, helps us make sense of our experiences.*

Rationale

As a practising PYP classroom teacher, I am constantly striving to find ways to infuse my units of inquiry with multiple perspectives. Incorporating the students' own diverse experiences and multicultural backgrounds into the curriculum maximizes their engagement and the level of genuine inquiry into areas that are relevant and significant to them. It also provides an authentic context in which to develop one of the key values of the IB curriculum—international-mindedness.

At our school with an international student population situated within the Arab world, the exploration of Muslim culture is particularly significant. Students live in an increasingly interconnected world and are exposed to a variety of cultures, traditions and influences. The learning engagements and resources of this unit could be used by teachers to enhance the international nature of their units.

During the last few years I have been involved in collaboratively developing and teaching a unit of inquiry to help students develop a deeper understanding of where they are in place and time (a PYP transdisciplinary theme) by learning more about the place in which they currently live. The unit of inquiry originally began as a “local geography” unit that involved learning about Muscat and Oman. However, as we explored the unit more deeply, we began to see it much more as an inquiry into the relationships we build with the people we meet and the places we visit and live in, and into developing an open-minded approach to the different perspectives that people have about what they feel about where they are. We wanted the students to become much more actively involved in making sense of their everyday experiences. Our concern was that, unless we arouse the students' curiosity about their immediate environment, they can become passive recipients who merely watch the world go by. In some instances students were increasingly disengaged from, or even fearful of, some aspects of their surroundings and experiences. When students are not given opportunities to make sense of their experiences, it can lead to a sense of lack of control and a simultaneous erosion of confidence.

By changing the focus of the unit from a largely content-driven and thematic unit about “Where we live” to a much more conceptually based inquiry focused on gaining understanding about where we are, the central idea is much more globally transferable, as it is relevant to the lives of all students (and adults), wherever they live. It has also placed the development of open-mindedness and globally relevant PYP attitudes, including appreciation, confidence, and curiosity, at the centre of the unit of inquiry.

Although the planner for this unit should show how it is delivered in an age-appropriate way for 4–5 year olds, the learning engagements could be adapted for students throughout the PYP and still maintain a high degree of relevance, engagement, significance and challenge.

One of the issues that is commonly cited as a challenge in extending the international dimension of units of inquiry is the lack of appropriate resources. On reviewing the resources available for the students we teach, we recognized how overwhelmingly Western/Eurocentric they were. We wanted the classroom environment and resources available to students to better reflect the rich cultural diversity represented in the student population. If we were anticipating that students would construct meaning through play, we needed to equip them with resources that reflected the cultures they experienced. For example, if the construction corner is only resourced with bricks, sloped tiled roofing, leafy green trees and bushes, “farm animals” and “Western-dressed” dolls, it is difficult for the students to recreate the environment that they are experiencing in their daily lives through role play.

Similarly, a role-play corner that has only commercially available “dress-up” costumes and that is organized to mirror a Western living arrangement, limits the scope for role-play experiences that reflect the diversity of living styles. Some students new to the country can find meeting someone dressed in a full *abaya* and face covering quite daunting. By showing how these clothes are worn and placing scarves and cloaks in the role-play corner, we are able to increase their understanding and decrease their anxiety. The adults and students provide some of the richest resources for our students in this inquiry through their knowledge and perspectives, as well as in the artifacts they bring to share.

Lastly, the learning engagements listed in section 4 of the PYP planner are only suggestions. It is important to note that they do not need to be carried out in the order in which they are listed or covered in any one year. In an inquiry-driven learning environment, it is appropriate to follow the students’ interests and respond to the things they bring in and want to learn about. It is also vital that the central idea and key concepts are kept in mind when designing the learning engagements, so that these experiences become more purposeful.

The students should be constantly encouraged to make connections and reflect on what they think. For example, they hear the call to prayer five times a day and often wonder what “that man” is saying or singing. A discussion about faith might stem from a reflection on these experiences and from observations the students have made of rooms with lots of shoes outside the door (prayer rooms) in the local shopping centre. We purposefully time our unit to straddle the mid-year break, so that students have an opportunity to either explore their host country in greater detail, or contrast where they live with a place they travel to for the holidays. At a time when many of the classes are trying to work out where Father Christmas lives and how they can tell him where they will be on Christmas Eve, we find a natural link to introducing the globe and finding where Oman is in relation to the North Pole and to many other places in the world.

For the teachers involved in developing this unit, one of the most rewarding results has been to see the way students have been increasingly engaged, not just inside the classroom, and how they have transferred this understanding to show genuine interest in constructing greater understanding of the world around them.

1. What is our purpose?

To inquire into the following:

- **transdisciplinary theme**

Where we are in place and time

An inquiry into orientation in place and time; personal histories; homes and journeys; the discoveries, explorations and migrations of humankind; the relationships between and the interconnectedness of individuals and civilizations, from local and global perspectives.

- **central idea**

Learning more about the places we live in, and visit, helps us make sense of our experiences.

Summative assessment task(s):

What are the possible ways of assessing students' understanding of the central idea?

- *Interact with the children while they are creating their own 'land' or country, and ask them to explain what they would choose to put in it and why. Task: If you could make up your own land, and you were in charge, what would it be like? How could you make it a good land for the people who live there?*
- *Observation of students engaged in learning opportunities within the classroom environment e.g. during role play, painting, discussions, reading corner.*
- *Involve the parents and children in providing feedback about what they have learned when the students take home their end-of-unit folder of work and annotated photo sheet to share. This includes parent-student response sheet with prompts and space for parents' comments.*

What evidence, including student-initiated actions, will we look for?

- Behaviors and comments showing a greater recognition and respect for other people's points of view are observed by both the children's parents and teachers.*
- *Ability to recognise, and comment on, features of the place they live (Muscat, Oman). For example, "there are mountains in Oman", "it is hot most of the time", "there are lots of mosques here – that's where people go to pray".*
 - *Ability to differentiate between Oman and other places they have visited.*
 - *Level of understanding displayed during 'create your own land' assessment task – including key characteristics and giving an explanation for the choices they have made. For example, "I put shops and cars because they're everywhere in the world", "I put a playground because the children will like it", "There are forests and paths like in Australia, because I like that, and I don't like sand, it's sticky!", "It's cold in my land".*
 - *An ability to compare and contrast the places that they have visited or lived in.*
 - *A beginning understanding of how climate and landscape are linked.*
 - *Questions and/or interest that shows increased curiosity in learning about where they are or visit.*

Class/grade: K2

Age group: 4–5 year olds



PYP planner

School: Adapted from planner provided by, and in collaboration with, The American-British Academy (ABA)

Title: Our gracious host: Oman

Teacher(s): K2 teachers

Date: November 2009–January 2010

Proposed duration: 8 weeks

2. What do we want to learn?

What are the key concepts (form, function, causation, change, connection, perspective, responsibility, reflection) to be emphasized within this inquiry?

Key concepts: form, perspective, connection

What lines of inquiry will define the scope of the inquiry into the central idea?

- *The key characteristics of our host country, and other places in the world we know about*
- *The experiences that we have had in these places*
- *Our feelings about where we live*

What teacher questions/provocations will drive these inquiries?

- *What it is like in Oman?*
- *How can you compare Oman with the other places that you have visited or lived in?*
- *What are your feelings about living in Oman?*

3. How might we know what we have learned?

This column should be used in conjunction with "How best might we learn?"

What are the possible ways of assessing students' prior knowledge and skills? What evidence will we look for?

Pre-assessment: Find out what the children's previous experiences have been including: where they were born, whether they have lived anywhere else, places they have visited, and their memories of other places they have been. Parent involvement can be used to help gather this information, through a survey or by encouraging children to bring in photos/artefacts to prompt conversation.

Observation of children's responses to images of Oman, for example, looking through magazines and selecting pictures to use for a collage. Look to see if they can identify features of the place they live in. Through class discussions find out what the children know about Oman, e.g. can they name the country they live in, are they familiar with words including Muscat, wadi, and khanjar. What vocabulary do they have?

What are the possible ways of assessing student learning in the context of the lines of inquiry? What evidence will we look for?

Formative assessment: Show images, and ask the children if they can guess where in the world they were taken, and how do they know, for example, "It must be Oman because I can see an Omani flag in the picture", "It can't be here, because we don't have fields/snowy mountains like that here!"

Children draw or paint pictures depicting an Omani scene/place/artefact they are familiar with. These can be added to throughout the unit. Can they generate their own ideas from experiences/places in Oman? The child describes the picture for the teacher to scribe. (This is not an assessment of artistic ability).

Children recognize the differences and similarities between Oman and other places they have visited. Teacher records evidence of the children's understanding as they construct meaning by participating in play-based learning opportunities, observing their play and listening to what they say. Teachers provide opportunities for children to reflect on what they like about where they live, while also validating their right to dislike or feel ambivalent about aspects of where they are.

4. How best might we learn?

What are the learning experiences suggested by the teacher and/or students to encourage the students to engage with the inquiries and address the driving questions? What opportunities will occur for transdisciplinary skills (TDS) development and for the development of the attributes of the learner profile (LP)?

Beginning the inquiry • Provide ample opportunities for children to look at books, calendars, video scenes, slides and posters depicting scenes of Oman. Include use of routines such as "I see, I think, I wonder" and "think, pair, share" to encourage discussion and develop associated vocabulary. (TDS: research, communication, and thinking skills, LP: thinkers) • Watch story "Issa and the Coin" (a children's story based in Muscat) and join in the story as an interactive read-aloud. • Omani teaching assistants share stories about their lives in Oman e.g.: talking about their families and special events such as weddings. Bringing photographs, jewellery, clothes, food, henna, incense and other artefacts to share with the children and explain their use. (LP: knowledgeable, open-minded) • Mini-field trip within the school grounds including visit to the high school upper floors to view the surroundings and physical architecture. (TDS: research skills, LP: inquirers) • Provide authentic experiences by having samples of Omani clothing, foods and jewellery for the role-play corners • Introduce puppet 'Carmel 'o'shy', (from locally published book), as a guide to learning about where we live and to model asking questions.

Furthering the inquiry • Allow children to choose from a variety of learning engagements e.g.: role play, small world/block play, puzzles, reading corner, art area (TDS: self-management and social skills) • Provide opportunities for children to share photos, artefacts, stories and experiences by ensuring there are opportunities for either planned or spontaneous 'sharing/show-and-tell' time. Encourage them to reflect on their feelings about their experiences. (TDS: communication skills, LP: reflective, risk-taker, and communicator) • Use art materials to create own pictures of where they live • Create drawings and pictures that represent their emerging understanding (TDS: self-management skills) • Explore ways that we can represent different places using maps, globes, addressed envelopes etc. (LP: knowledgeable) • Create a collage of Omani scenes using magazines; allow children the chance to verbalise their choices •

Allow children to recreate an Omani style building including a fort, mosque, and villa. • Create a 'wadi' (mountain valley) section in the playground for outdoor play opportunities • Inquire into local currency by making wax 'rubblings' of coins. • Recreate some of the artefacts they have seen, such as Omani jewellery or Khanjar (ceremonial dagger) using gold and silver painted pasta and string • Identify examples of environmental print in Arabic and English script (and other), leading to a discussion of languages spoken/heard, including TV/radio/computers. (LP: communicator) • Visit the Omani Heritage Village as part of an after school field trip with K2 families (LP: open-minded)

Sorting out and drawing conclusions • 'Human' graph of children who spent the mid-year break in Oman, and who travelled to another country. Discuss where they went and find on map/globe. (TDS: thinking skills) • Look at photos taken during field trip and think of captions for the teacher to scribe for a display/class book • Use pictures of Oman and other places to compare (similarities and differences). Use a Venn diagram (LP: thinkers and reflective) •

Make/decorate a cardboard mandooos (treasure chest), in which to keep things they value and treasure about Oman and discuss what they treasure most about living here. Draw a picture of these 'things they like about being here' to include in their mandooos, and/or dictate a sentence (LP: reflective) • Create a story through song and movement, by adapting 'We're going on a camel (bear) hunt', and collaboratively develop new lyrics to create a story about Oman • Design own land (see summative assessment), incorporating things they choose from what they have learned about different places. Explain what they choose and why.

5. What resources need to be gathered?

What people, places, audio-visual materials, related literature, music, art, computer software, etc, will be available? Use images from local publications such as "Oman Today", monthly journals, calendars, colouring books, laminated photos, digital photos, including scanned pictures of local police force and traffic police. Arabic songs and music. Arabic art, mosaics, patterns. Artefacts like henna, incense, local and foreign currencies, items which children bring in to share. Assorted fiction and non-fiction from school and class libraries including "Camel o shy", "The camel who ran away", "A-Z of Arabia", "Humpty Grumpy Camel – a counting book", some Arabic translations of class library books. Digital camera and printing facilities. Omani teaching assistants talk about experiences, lifestyle and language, and share artefacts. Muscat Festival – annual event which includes establishment of a 'heritage village' in the city for the duration of the festival, with interactive exhibits, animals, performances and food.

How will the classroom environment, local environment, and/or the community be used to facilitate the inquiry? The classroom environment should reflect the diversity of cultures represented in the community and provide children with an appropriate range of resources with which to construct meaning about the experiences they have, through play. As play is the predominant vehicle for facilitating learning through inquiry in the early years, the classroom should have multiple opportunities for these activities. 'Small World'/Block/construction areas: wadi, gravel, rocks, goats, sheep, donkeys, dog, people, camels. Role play: camping tent and camping equipment, national dress in child size for boys and girl, plastic kanjars (Omani dagger), Kawa cups and coffee pot, wadi mats, low sofa/seating. Hats, scarves, gloves, cold weather clothes for comparison. Locally sourced jigsaw puzzles of palm tree, coffee pot, camel, Arabic lady, Arabic man, mandooos (chest).

6. To what extent did we achieve our purpose?

Assess the outcome of the inquiry by providing evidence of students' understanding of the central idea. The reflections of all teachers involved in the planning and teaching of the inquiry should be included.

Nearly all children are now able to identify and describe where they live including the kinds of buildings in Oman, who else lives in Oman, what the weather is like, what activities you can do here. There was great interest generated in sharing information about other places they have been to, and most children were able to compare aspects of these other places to where they are now e.g. that the money looks different. The use of globes and maps gave a greater understanding of the idea that some places are further away than others and that there might be more than one way to get to a place (you can fly or drive to Dubai). We were able to create a very positive attitude towards the place we live, with students showing pride in their understanding and a willingness to explore other perspectives. They were able to respond respectfully and with genuine curiosity to the diverse cultural experiences provided.

How you could improve on the assessment task(s) so that you would have a more accurate picture of each student's understanding of the central idea?

This year, we started talking about the summative assessment task much earlier in the unit of inquiry, and some of the children became quite excited, generating their own ideas for what they wanted in their 'land'. The mandooos activity was a good preparation for the summative assessment, and this year we felt that we had planned the inquiries to lead into the final assessment much better.

What was the evidence that connections were made between the central idea and the transdisciplinary theme?

The connection between the transdisciplinary theme "Where we are in place and time" was very strong. The children were able to clearly articulate where they live, and showed increasing understanding of their experiences. They were able to handle their daily experiences in a much more confident manner as they gained greater perspective about the concept of place.

7. To what extent did we include the elements of the PYP?

What were the learning experiences that enabled students to:

- **develop an understanding of the concepts identified in "What do we want to learn?"**

All of the planned engagements were designed to deepen the children's understanding about what the place they live in is like, and how it compares to other places.

- **demonstrate the learning and application of particular transdisciplinary skills?**

The summative assessment opportunities showed how the children's thinking skills were developed; acquisition of knowledge, comprehension, application, analysis, synthesis, evaluation.

The formative assessment noted developments in research skills, communication skills, social skills and, to a lesser extent, some self-management skills.

- **develop particular attributes of the learner profile and/or attitudes?**

In each case, explain your selection.

Attributes of the learner profile: thinkers, open-minded, knowledgeable, communicators, reflective.

Attitudes: appreciation, curiosity, creativity, empathy, respect, confidence.

8. What student-initiated inquiries arose from the learning?

Record a range of student-initiated inquiries and student questions and highlight any that were incorporated into the teaching and learning.

After the mid-year break, the children who had brought photographs or artefacts from their holidays were given the opportunity to talk about and share these at 'circle' time. The children add the images and artefacts to a display which had a map of the world, entitled "Where in the World". The teacher facilitated discussion and encouraged comparisons between here and the places they visited. One family sent a postcard from their trip to Malaysia which sparked more interest ("Where was this place on the map?"). "Which animals did they see there?". When we sang "We've got the whole world in our hands", the children became really interested in finding out which continent 'their' country was in, and wanted to role-play 'flying' from one country to another. They wanted to pretend they had visited a place and brought something back from it (e.g.: Lions from Africa, Disney Land from America).

What student-initiated actions arose from the learning?

Record student-initiated actions taken by individuals or groups showing their ability to reflect, to choose and to act.

The children chose to engage with the learning opportunities offered to them, participating actively in a variety of role-play scenarios and choosing to dress-up in clothes from other cultures. They created their own 'worlds' which included aspects of the ideas covered in class. They shared what they had been learning with their parents and siblings.

They engaged more actively with their environment, thinking about what they saw, heard, and experienced. They made more connections when they retold what they had done at the weekend, or after school. They became better at seeing situations from another perspective and, therefore, became more open-minded. By encouraging parents to collaborate with us in obtaining anecdotal evidence, we were able to confirm the unit's success at provoking student-initiated action. Comments from parents included how the level of questioning from their children had increased, how they were observing much more actively e.g. when driving around the city. They were connecting their observations to what they knew and asking lots of questions!

9. Teacher notes

Although the planner for this unit should show how it is delivered in an age-appropriate way for 4-5 year olds, the learning engagements could be adapted for children throughout the PYP and still maintain a high degree of relevance, engagement, significance and challenge.

The learning engagements listed in section 4 of the PYP planner are only suggestions. It is important to note that they do not need to be carried out in the order in which they are found or covered in any one year. In an inquiry-driven learning environment, it is appropriate to follow the children's interests and respond to the things they bring in and want to learn about. It is also vital that the central idea and key concepts are kept in mind during the learning engagements, so that they don't become a series of 'activities'.

Example 2

Transdisciplinary theme: *Where we are in place and time*

Central idea: *Exploration and discovery brought change to people and places.*

Rationale

Southridge Junior School is an independent school located in Surrey, British Columbia, Canada. It is an IB World School that offers the PYP to students from kindergarten to grade 4, and the MYP to students from grades 5 to 7. School enrollment is 324 and class sizes range from 16 to 22 students. While the student population has always comprised students of European heritage, recently there has also been a growth in the number of South Asian, East Asian (Chinese, Japanese, Korean and Vietnamese), West Asian, Middle Eastern and Afro-Canadian students.

The school has elected to implement the PYP but it is also required to use the curriculum mandated by the Ministry of Education in Canada. Under the transdisciplinary theme “Where we are in place and time”, the students in grade 4 (9–10 years) inquire into how exploration and discovery resulted in change for people and places. Prior plans for this unit of inquiry involved only European explorers and their explorations. In reviewing this unit through involvement in this project, we planned for a more diverse and global approach by exposing the students to a curriculum that goes beyond Eurocentric content mandated by the Ministry of Education. We learned that many discoveries were influenced by Muslim explorers, geographers, mathematicians and astronomers, who themselves were influenced by Greek and Persian thinkers. As the school population is culturally diverse, students were also given an opportunity to introduce explorers from their own cultures or country of origin. The inclusion of these perspectives supports the development of a more international curriculum.

This unit, “The wonders of exploration”, was developed collaboratively through a series of planning and reflection meetings, and was adapted as new learning was sought and student inquiries developed. During the planning meetings, it was agreed to try an approach in which the classroom teachers dealt primarily with European exploration (as mandated by the state) and world explorers. The PYP coordinator infused a Muslim perspective by facilitating inquiries that focused on the impact of Muslim explorers. The French class teacher provided a French cultural perspective and engaged students about French explorers who had an impact on Canadian history. This collaborative approach brought richness, diversity and depth to the unit.

Throughout this unit of inquiry, the students are given opportunities to inquire into different explorers beyond the national curriculum requirements. Students discover the influence of and contributions made by figures such as Ibn Battuta, Al-Idrisi, Zheng He and Al-Biruni in the fields of map-making, geography, navigation, astronomy, mathematics and medicine. They come to understand the reasons why people explore, the impact of exploration on people and places, the different perspectives on exploration, and how exploration does not occur in isolation and is connected with and builds upon the work of prior explorers.

The following PYP planner represents the collaborative team’s journey of their own exploration to uncover diverse ideas and seek ways to provide multiple perspectives that can enrich the students’ understanding beyond their local setting and still address the mandated curriculum. It supports student learning, and knowledge and appreciation of a broader range of cultures.

By utilizing a broader perspective in the design of this unit of inquiry, learners are exposed to the impact of exploration on people and places from a much wider global perspective. Students were provided with opportunities to be open-minded, to consider multiple perspectives, and to develop appreciation of other cultural influences.

1. What is our purpose?

To inquire into the following:

- **transdisciplinary theme**

Where we are in place and time

An inquiry into orientation in place and time; personal histories; homes and journeys; the discoveries, explorations and migrations of humankind; the relationships between and the interconnectedness of individuals and civilizations, from local and global perspectives.

- **central idea**

Exploration and discovery brought change to people and places.

Summative assessment task(s):

What are the possible ways of assessing students' understanding of the central idea? What evidence, including student-initiated actions, will we look for?

Assessment task: Students will develop a concept map/web to communicate their understanding of the central idea and lines of inquiry by using keywords or phrases that capture their learning.

Assessment tool: A student-teacher created checklist will be developed prior to the assessment task so that students understand the criteria being used to assess their understanding.

Evidence of student-initiated actions we will look for:

- *Students are excited about exploration and discovery asking questions and inquiring into the central idea at home. Parents share these through end-of-unit survey, emails or home-school journal.*
- *During discussions and activities, students are articulating how exploration and discovery brought change and how these had an impact on people or places.*
- *Students begin to understand and discuss that exploration and discoveries occurred globally and go beyond what is taught in the local curriculum.*
- *Students begin to show open-mindedness and tolerance in their interactions with others. This can be noted in classroom situations or interactions on the playground.*

Class/grade: Grade 4

Age group: 9–10 years old

School: Adapted from planner provided by, and in collaboration with, Southridge School

Title: *The Wonders of Exploration!*

Teacher(s): Grade 4 teachers, PYP coordinator, French language teacher and teacher-librarian

Date: September–November 2009

Proposed duration: 6 weeks



PYP planner

2. What do we want to learn?

What are the key concepts (form, function, causation, change, connection, perspective, responsibility, reflection) to be emphasized within this inquiry?

- *causation (including interconnectedness of work between explorers, building on each other's ideas)*
- *change*
- *perspective (including feelings and attitudes towards explorers)*

What lines of inquiry will define the scope of the inquiry into the central idea?

- *Reasons for exploration (causation)*
- *Ways that exploration brought change (change)*
- *Differing views on exploration (perspective)*

What teacher questions/provocations will drive these inquiries?

- *Why do people explore?*
- *How did explorers build on each other's work?*
- *How did exploration bring change to people and places?*
- *What attitudes and feelings did people express about exploration?*

Provocation

Explorer's Quest: Set up an authentic quest where students are given opportunities to investigate artefacts or explore specific items or places in their school environment. Some groups can be given tools to help them navigate, whereas others can experience what it may be like to search without the use of aids. Questions to focus on: Why do people explore? Why is exploration important?

3. How might we know what we have learned?

This column should be used in conjunction with "How best might we learn?"

What are the possible ways of assessing students' prior knowledge and skills? What evidence will we look for?

Pre-assessment "Four square" mat activity in groups, where students note ideas on the following 4 categories: 1. Why do people explore? (causation) 2. How has exploration changed the world? (change) 3. What attitudes or feelings do you think people had about exploration? (perspective) 4. Name some explorers you know from around the world. (This gives evidence of students' understanding of world explorers)

What are the possible ways of assessing student learning in the context of the lines of inquiry? What evidence will we look for?

Formative assessments:

Strategy 1: Observations of student participation in discussions and classroom activities. Assessment tool: anecdotal record

Strategy 2: Open-ended task: Time in a Bottle activity (see box 4). Assessment tool: anecdotal record

Strategy 3: Performance assessment: "Museum Men/Women" role-play activity Assessment tool: rubric. Students choose an explorer that they are interested in from 13th to 17th century. In their personal inquiry, they collect, interpret, organize, and record data. They inquire into personal questions they may have along with responding to criteria listed below. Students will then take on role of an explorer they inquired into. Student will be interviewed by a peer on the following questions: 1. Why did you choose to explore? (causes for exploration) 2. How did your exploration bring change to people and places? (change) 3. What attitudes or feelings did people express about your exploration? (perspective) 4. What learner profile attributes or PYP attitudes do you need to reflect as an explorer?

5. What resources need to be gathered?

What people, places, audio-visual materials, related literature, music, art, computer software, etc, will be available?

Gather literature on silk/spice route, world explorers (including Muslim explorers and European explorers). **Recommended books:** *We're Riding on a Caravan: An Adventure on the Silk Route* by Helen Cann; *The Travelling Man. The Journey of Ibn Battuta, 1335–1354* by James Rumford; *The Silk Route: 7000 Miles of History* by John Major; *1001 Inventions: Muslim Heritage in Our World* by Salim Hassan; *Explorers and Pathfinders: Explorers* by Philip Wilkinson; *The Usborne Book of Explorers Recommended Audiovisual materials: Silk Road Encounters: Sourcebook and Teacher's Guide* By John Major, *Explorers to Canada, The Key to Canada, Discovery Streaming: Early Explorers: The Age of Discovery Recommended websites:* www.unesco.org, www.islamfortoday.com, <http://www.sfusd.k12.ca.us> (key word: Ibn Battuta), <http://www.youtube.com> (key words: Ibn Battuta, Zhenghe, Al-Idrisi-the clip on Ibn Battuta is lengthy and only part 1 needs to be shown), <http://www.albalagh.net> (key word: Al-Biruni, history)

How will the classroom environment, local environment, and/or the community be used to facilitate the inquiry?

Parents who have knowledge about exploration will be contacted for resources or to be guest speakers, if appropriate. Students will visit the local Maritime Museum to learn about exploration.

4. How best might we learn?

What are the learning experiences suggested by the teacher and/or students to encourage the students to engage with the inquiries and address the driving questions?

Teacher providing context for inquiry:

• **Explorers' quest activity:** see provocation • **Role play (developing perspective):** As explorers, one of the classes takes over another classroom. What does it feel like when people enter your territory? • **Class discussions and whole class concept map/web on why people explore (e.g. land acquisition, gaining and building knowledge, making new discoveries, trading)** • **Preparation for exploration in the past:** read literature and view video clip and silk route map. **Purpose:** allows students to see trading as one of the reasons why people explored in the past • **Discuss the benefits of the silk and spice route. How did exploration bring change to people and places (e.g. integrating of cultures, acquiring new knowledge, brought changes in art, music, and language)?** • **Create a group timeline of explorers. Add to timelines as new explorers are investigated** • **Expose students to other world explorers including European explorers that impacted Canada (ministry mandated content) through reader's theatre, video clips, and readings.** • **Discussion on how explorers have learned from previous explorations** • **Fieldtrip to Maritime Museum to learn about European explorers** • **Read: Ghost of James Bay and discuss perspectives of "First Peoples" to the explorers** • **French teacher: reading and discussion of French explorer: Jacques Cartier, Samuel de Champlain** • **Teacher-librarian: mini-lessons on reading non-fiction materials (collecting data)**

Leading and facilitating student inquiry:

• **Trading post activity:** Part 1: Groups of students choose a place on the silk/spice route from a specified list. Students research information to share about place, locate place on map, and assemble images of trade items (images or real objects) on route, set up trading post. Part 2: Students role play merchants and explorers by gathering facts about the place (knowledge seeking), and trade goods. • **Complete explorer log charts focusing on the lines of inquiry using guided information booklets gathered from websites and book sources. Share information learned with each other through a stations approach** • **Reflections of trading post activity, key concepts, student inquiry questions, and fieldtrip** • **"Time in a bottle activity" explorer role play: write a letter to your family describing why you explored, people's reactions to you, what you learned, how you may have brought change. The letter will be put in a bottle** • **"Museum men/women" learning engagement (see formative assessment)** • **Activities and discussions on student inquiry questions (done throughout the unit)**

What opportunities will occur for transdisciplinary skills development and for the development of the attributes of the learner profile? *transdisciplinary skills thinking skills 1. acquisition of knowledge 2. synthesis 3.comprehension research skills 4. collecting recording/organizing and interpreting data 5.communication skills*

Learner profile: *thinker, communicator, reflective, open-minded*

PYP attitudes: *creativity and curiosity*

6. To what extent did we achieve our purpose?

Assess the outcome of the inquiry by providing evidence of students' understanding of the central idea. The reflections of all teachers involved in the planning and teaching of the inquiry should be included.

Classroom teachers and PYP coordinator's reflections: *The students demonstrated understanding of the central idea. This was reflected in the explorer letters, formative and summative understanding, explorer's log, and classroom discussions. The students had a sound grasp of the reasons for exploration and provided examples beyond just land acquisition: "I wanted to learn more about the world", "I wanted to see Mecca and seek knowledge and see the world". They understood how exploration brought change to people and places. In their "Time in a bottle" letters, some students said in role: "I brought change to people from my books about India and Indian medicine." "People also know me for teaching mathematics and astronomy". In summative assessment, they commented on the 1st and 2nd lines of inquiry: "I never knew that the silk route brought people together", "We would not be here without James Cook", "languages changed", "cultures changed", "found passages to the Orient", "finding new lands". We found that perspective was not as strong this year. The students need a prior understanding that First Peoples inhabited the land before the explorers came. By having this knowledge, they are better able to see the differing views on exploration. We had witnessed last year that the concept of perspective was stronger when the First Peoples unit under "How We Express Ourselves" was taught first. We would like to return to this sequence next year.*

French teacher: *Taking on further inquiries during French classes was successful in this unit as we explored vocabulary related to exploration in looking at how the French explorers impacted Canada.*

Teacher-librarian: *Students were guided in selecting non-fiction materials which helped them in their inquiries.*

How you could improve on the assessment task(s) so that you would have a more accurate picture of each student's understanding of the central idea?

Formative: We liked the range of formative assessments we used. However, we feel that as this was the first unit in the year, we needed to spend more time talking to the students about group work. We need to set criteria with them and also have them use a self/peer checklist to reflect on how they participated as a member of a group. We need to add social skills to our unit next year (e.g. group decision making, cooperating, adopting a variety of roles, respecting others).

Note: We think that the Museum men/women role play can also be used as a summative assessment depending on the dynamics of the group.

Summative: the open-endedness of the summative task worked well for this class. We need to do a rubric to accompany this strategy instead of a checklist. This will give us a more in-depth look at their understanding. The students also need to be given the criteria first so they know what to expect.

What was the evidence that connections were made between the central idea and the transdisciplinary theme?

Our unit focused on discoveries, explorations, and the interactions between explorers and people of the land (interconnectedness of individuals and civilizations), both from local and global perspectives (focus on local and world exploration). We need to spend more time looking at the interaction between the people who already live there and the explorers that arrived. This will come in naturally if we do the First Peoples' point of view first.

7. To what extent did we include the elements of the PYP?

What were the learning experiences that enabled students to:

- **develop an understanding of the concepts identified in "What do we want to learn?"**

Causation: *the trading post activity, the media explored, letter writing, classroom discussions, the Museum men/women role play, and the summative task helped to develop this concept. We would like to give the students more guidance in pulling relevant information about their trading post when doing research. The teacher-librarian could assist us with this activity next year.*

Change: *this was not covered as deeply with the European explorers but was reflected in the study of Muslim explorers and the silk route (e.g. languages, blending of cultures)*

Perspective: *this was challenging because we didn't do the First Peoples unit first. They didn't understand that people were there before the explorers.*

- **demonstrate the learning and application of particular transdisciplinary skills?**

The learning engagements fostered these skills:

Thinking skills: *(1) acquisition of knowledge – this was done very well and the students were proud of how much they had learned. (2) synthesis – the students were able to synthesize a lot of ideas in the "time in a bottle" letter writing and Museum men/women activity (3) comprehension – having the age-appropriate material and creating their own paragraphs deepened this thinking skill. We were glad that the resources for the Muslim exploration section were adapted to better suit this age level.*

Research skills: *(1) collecting/recording/organizing and interpreting data – this was done through the explorer logs, the matrix used for organizing the Museum men/women role play, and through their web/concept map in the summative assessment task (2) formulating questions – students formulated their questions and then answered them. They have wonderful related questions for the First Peoples unit coming up.*

Communication skills: *(1) speaking— was demonstrated through the Museum men/women role play and through the trading post activities (2) reading – was enhanced when the students needed to read and comprehend the materials (3) writing – was developed through our paragraph writing opportunities and "time in bottle" letter writing (4) listening – this was developed through group work and participating and responding in discussions.*

- **develop particular attributes of the learner profile and/or attitudes?**

Learner Profile: *(1) thinker – the students considered the reasons why people went to so many places around the world despite old world technology and they also expressed that they realized that many cultures had similar exploration goals (2) communicator – this attribute was developed in their presentations and writing in role in their letters (3) reflective – the students' reflection on the activities we did, including the trading post and the field trip to museum (4) open minded – students looked at different countries' perspectives and appreciated a wide range of exploration.*

PYP attitudes: *(1) creativity – role playing and writing (trading post, museum men, letter writing) (2) curiosity – student questions/self directed researching for museum men/women activity.*

8. What student-initiated inquiries arose from the learning?

Record a range of student-initiated inquiries and student questions and highlight any that were incorporated into the teaching and learning.

We found that the student inquiries focused mainly on these categories: Ibn Battuta, the Vikings, land acquisition, mapping, and traits of explorers. These were addressed spontaneously as they came up in discussions, reading, or during learning engagements. Some of these were addressed by the students when they did the Museum men/women preparation and research.

- Who has Ibn Battuta's original books?
- Why didn't Ibn settle in any of the places he visited?
- Why did the Vikings do so much damage to other people and cultures? Why did the Vikings leave Vinland? Did the natives kill the Vikings and force them to leave?
- Why was there so much war back in the time of early exploration?
- Was Ibn Battuta a small or big man?
- Where did the early explorers find their courage? What inspired them?
- How did the Vikings know where they were going (equipment)? Why do people risk their lives for fame?
- Why did they want to rule another country?
- How did people know the shapes of land when they made maps?
- How did they know the exact routes to travel?
- Was Marco Polo married?
- How do scientists know who traveled and where a long time ago?
- Can people still claim land and get it from other people?

At this point teachers should go back to box 2 "What do we want to learn?" and highlight the teacher questions/provocations that were most effective in driving the inquiries.

What student-initiated actions arose from the learning?

Record student-initiated actions taken by individuals or groups showing their ability to reflect, to choose and to act.

- further exploration on the French explorers initiated by a student
- this unit sparked a genuine interest in history and appreciation of the accomplishments of people before them

9. Teacher notes

Successes of the unit:

- We felt that the collaboration between the teachers significantly enriched the unit for the students. We liked the PYP coordinator leading and facilitating the engagements on the Muslim exploration and the silk and spice routes and we think that having the French teacher lead the section on French explorers is a good change to the unit also.
- Beginning the year with this inquiry unit really motivated the boys and hooked them!
- Beginning with the silk and trade route and then looking at exploration from all over the world made the unit authentically international and gave the students a broader perspective.
- Integrating the mapping skills into the unit allowed us to meet ministry mandated curriculum within the context of an authentic unit.
- The learning engagements were designed to meet a diverse range of learning styles. Students got many opportunities to use role play which we found was a motivator for many of the students.
- Writing skills were developed within the unit since the students were learning about paragraph writing within the context of the unit.
- The students got to know about world explorers that they had no awareness of.
- This gave them a much richer international perspective.
- Students made connections with an explorer from their own home country.
- There were sufficient resources available for the European exploration section and some for the world explorers.
- Some of the student inquiries and wonderings were very relevant to the unit and showed a level of engagement with the central idea.

Challenges/Changes: many of the challenges and changes have been documented in the reflection sections of the planner. These are additional challenges that we encountered:

- Collecting age-appropriate resources can be tricky when considering non-Western or European explorers. Resources were considered by the teachers and adapted as appropriate. The resources listed in stage 5 are recommended since they helped with this unit of inquiry.
- Engaging students in assessing materials that may have biases was something we would like to continue to work on in the future.
- It was challenging to coordinate with so many teachers yet successful!
- We need to ensure that the timings between the classroom teachers and the French teacher are better matched. It's important that the French teacher introduces her lessons when we begin to investigate European explorers in our class and not when the Museum men/women role play is taking place. This way we can ensure that French explorers are addressed during French class.

Example 3

Transdisciplinary theme: *How we express ourselves*

Central idea: *People express their beliefs and values through art.*

Rationale

Al-Makassed Houssam Eddine Hariri High School is a private school located in Charhabil in the city of Saida, Lebanon. The elementary school offers the PYP to 600 students in 25 classes from grades 1 through 5. The students are bilingual, learning either English or French in addition to Arabic (mother tongue). The community is primarily Muslim Lebanese, thus the population at our school is not highly diverse.

This unit of inquiry is explored in grade 4 (9–10 years old). The central idea falls under the transdisciplinary theme “How we express ourselves”. The key concepts in this unit are form, connection and perspective. This unit of inquiry offers students the opportunity to inquire into Islamic religion and other religious beliefs from new and different perspectives. There is a natural integration of the arts in this unit. The inquiry into religious art develops the learners’ knowledge and sense of appreciation as they identify key features of different religious artworks and develop their own art pieces. Inquiring through the concept of perspective offers an opportunity to understand the perspectives of different people in the Lebanese community and in other cultures.

The unit of inquiry entitled “I Believe” has been taught for three years. Through participation in this project, changes were made to the unit improving the connection between the transdisciplinary theme and the central idea; the focused development of the IB learner profile and PYP attitudes; and strengthening the concept of perspective. Grade 4 class teachers, Arabic language teachers and single-subject teachers held several planning meetings with the PYP coordinator. Collaboratively, they mapped the central idea with relevant resources and learning engagements that would facilitate the inquiry. The lines of inquiry link directly to the central idea. They also address our national requirements and suit our context. The collaborative process was effective since the central idea creates connections across the subject areas.

The unit began with an inquiry into Islam and, since the student population is primarily Islamic, the focus was to develop a deeper understanding of our shared beliefs and culture. The key features were used to guide further inquiries into other belief systems.

The unit of inquiry explores the following: different beliefs (form); the ways in which people express their beliefs (perspective), especially through the arts (connection). The study of different belief systems allows learners to construct a better understanding of their own culture and that of others. In addition, arts, one of the subject area focuses of this unit, serves as a common means that people have used to express their beliefs. This unit, thus, was selected in our school to promote the development of the attributes of tolerance, respect, open-mindedness and appreciation, and the international-mindedness we expect from the learners.

1. What is our purpose?

To inquire into the following:

- **transdisciplinary theme**

How we express ourselves

An inquiry into the ways in which we discover and express ideas, feelings, nature, culture, beliefs and values; the ways in which we reflect on, extend and enjoy our creativity; our appreciation of the aesthetic.

- **central idea**

People express their beliefs and values through art.

Summative assessment task(s):

What are the possible ways of assessing students' understanding of the central idea? What evidence, including student-initiated actions, will we look for?

Task: *Students will show or demonstrate how arts reflect the concepts of belief and tolerance through the creation or composition of various types of arts including visual arts, or music. Students can choose to work individually or in small groups. Their creation will be presented or performed in front of their parents. The following criteria will be used to assess the students' presentation and understanding of the central idea:*

- *the students demonstrate their understanding of the different features of religious arts*
- *the art form chosen by students is appropriately chosen*
- *the students are able to communicate their work*
- *the work shows creativity and tolerance*

Students will maintain a reflection journal to record their understanding and action as the unit progresses. The room is decorated with various signs, symbols and artworks which people have created to express their beliefs and values. These were continually revisited as students added more artefacts that continued to support their understanding of the central idea.

Class/grade: Grade 4

Age group: 9–10 year olds

School: Adapted from planner provided by, and in collaboration with, Al-Makassed Houssam Eddine Hariri High School

Title: Arts and belief

Teacher(s): Grade 4 teachers

Date: 28 September–9 November 2009

Proposed duration: 6 weeks



PYP planner

2. What do we want to learn?

What are the key concepts (form, function, causation, change, connection, perspective, responsibility, reflection) to be emphasized within this inquiry?

Key concepts: *form, connection, perspective*

Related concepts: *beliefs, values, creativity*

What lines of inquiry will define the scope of the inquiry into the central idea?

- *The differing beliefs and values*
- *The arts associated with different religions*
- *How arts symbolize different beliefs and values*

What teacher questions/provocations will drive these inquiries?

What are our beliefs?

What are our values?

What are the different elements of religious arts?

How is religion reflected through arts?

Provocations:

The visit to a religious building that is not a mosque, a first for all the grade 4 students, provoked a lot of questions among the students.

3. How might we know what we have learned?

This column should be used in conjunction with “How best might we learn?”

What are the possible ways of assessing students’ prior knowledge and skills? What evidence will we look for?

As a whole class, students unpack the central idea to find out their understanding of the concepts embedded in the central idea. This is done both in English and Arabic. Field trips to religious sites and the discussion following those trips provide teachers with information about the students’ misconceptions about how people express their beliefs and values through art.

What are the possible ways of assessing student learning in the context of the lines of inquiry? What evidence will we look for?

Since all the students in the school are Muslims, they are familiar with Islam and Islamic art. In this unit, students look at other belief systems and religious art and create a Venn diagram to compare and contrast Islam with other belief systems. Throughout the unit, teachers observe students during discussions and note these in an anecdotal record. Photographs are kept to document the various learning engagements. Students use a continuum line to mark how their understanding is moving as they engage with the unit. Each student keeps a reflection journal in which they can use words or artistic expressions to show their understanding.

5. What resources need to be gathered?

What people, places, audio-visual materials, related literature, music, art, computer software, etc, will be available?

Places: Churches, temples, mosques in the local area Book titles: *A Faith Like Mine, Visiting a Church, World Faiths Christianity, Musa, Eyewitness Religion, Religions of the World, Great Works of Biblical Art, Buddhist (Beliefs and Cultures), Islamic Designs, The Splendour of Islamic Calligraphy Films: Al Rissala, The Prince of Egypt, Azur et Asmar*

Websites: <http://www.historyforkids.org/learn/islam/art> <http://www.uga.edu/islam/slArt.html> <http://torahart.com/gallery.php> <http://www.ezsoftech.com/stories/isa.asp> <http://pof.reonline.org.uk> <http://www.jesusandkids.com/Stories%20Table.htm> <http://www.islamicart.com/main/architecture/wood.html> <http://www.woodlands-junior.kent.sch.uk>

How will the classroom environment, local environment, and/or the community be used to facilitate the inquiry?

Photographs of religious arts representing different belief systems are displayed around the classroom. Some of these photographs are taken from field trips to different religious buildings. The local community has many architectural sites which the students can visit to help them with their understanding of the central idea.

4. How best might we learn?

What are the learning experiences suggested by the teacher and/or students to encourage the students to engage with the inquiries and address the driving questions?

The teacher provides the context for inquiry

- *Teacher models how to conduct research into the different world religions (a chance to focus on the research skills).*
- *Teacher displays the names of the different religions in the classroom and the students are grouped according to these. The students conduct research about the beliefs and values of the different religions. The groups are divided to work on different religions in English and Arabic.*
- *Visits to different religious buildings, watch movie “AlRissala”, read books about religious arts both in English and Arabic.*
- *Class discussion on the concepts relating to this unit including beliefs, values, art.*

Leading and facilitating student-inquiry

- *Students use the dictionary to find out the meanings of “beliefs” and “values”. Since all of the students in our school are Muslims, it would be relevant to apply their understanding about Islam, using a graphic organizer, to guide their research about other belief systems.*
- *Collaborative groups identify the key features of Islamic art patterns.*
- *Students view photographs of paintings created in different belief systems. In groups, students discuss what they can observe and identify what they would like to know more about.*
- *Research on the questions raised in relation to the different art forms associated with a belief system.*
- *Students create artworks to demonstrate their understanding of key features of religious arts.*

What opportunities will occur for transdisciplinary skills development and for the development of the attributes of the learner profile?

Learner profile: *As students learn more about beliefs different from their own, they become more **open-minded**. During the unit, their research skills are further developed allowing them to become better **inquirers**. Students are given the opportunity to **communicate** their ideas confidently in front of their parents and their peers.*

Transdisciplinary skills:

Research skills: *Posing questions, gathering and organizing data, and presenting their findings appropriately.*

Social skills: *Collaborating with others during the preparation of their summative assessment task. Students develop tolerance and respect during their visits to unfamiliar religious buildings.*

Communication skills: *Students choose appropriate ways to share their findings with others during the course of the unit. Writing text type is descriptive writing.*

6. To what extent did we achieve our purpose?

Assess the outcome of the inquiry by providing evidence of students' understanding of the central idea. The reflections of all teachers involved in the planning and teaching of the inquiry should be included.

Since all of the students are Muslims, they are not exposed to other belief systems. They had a lot of misunderstanding about the beliefs of non-Muslims and how other people have expressed their beliefs through art. This unit gave the students an opportunity not only to identify key features of arts from other beliefs system but also to gain understanding about other beliefs and values. Students reflected on their understanding in their journals.

How you could improve on the assessment task(s) so that you would have a more accurate picture of each student's understanding of the central idea?

The summative assessment task criteria can be improved to address better the different language levels of the students in the class.

With the publication of the new arts scope and sequence, the teachers will consider the strands and different art forms in the design of the summative assessment task.

What was the evidence that connections were made between the central idea and the transdisciplinary theme?

This unit gave the students the opportunity to explore the artworks created by people to express their beliefs and values. The unit allowed them to appreciate and reflect on the links between the key features of belief systems and religious art.

7. To what extent did we include the elements of the PYP?

What were the learning experiences that enabled students to:

- **develop an understanding of the concepts identified in "What do we want to learn?"**

The research about the different beliefs and values in addition to the architecture of the visited sites and religious artworks enabled the students to understand the concept of form.

*The exploration of different artworks focused on the **connection** between art and beliefs.*

*The different ways of performing and presenting the arts developed a deeper understanding of the concept of **perspective**.*

- **demonstrate the learning and application of particular transdisciplinary skills?**

Research skills: posing questions helped the students in gathering and organizing their findings

Communication skills: discussions, viewing pieces of art, listening to conversations and stories told by guest speakers, communicating their understanding

Social skills: the students were grouped and regrouped according to the different tasks; they worked cooperatively which enabled them to have different roles and apply the required social skills

- **develop particular attributes of the learner profile and/or attitudes?**
In each case, explain your selection.

*The students were given opportunities to be engaged and inquire into the different beliefs systems through the field trips to religious buildings. The division of groups facilitated their development as cooperative learners and **communicators**. The visits and the contact with different people, in addition to the knowledge they gained, were appropriate for the development of the attitudes of **tolerance** and **respect** and the **open-minded** learner profile. The focus on art and the performance assessment developed **appreciation** and **creativity**.*

8. What student-initiated inquiries arose from the learning?

Record a range of student-initiated inquiries and student questions and highlight any that were incorporated into the teaching and learning.

What do Christians believe in?

How many religions are there?

How do non-Muslims pray?

Who is the prophet in Judaism?

What do the icons in the church represent?

How are people of different beliefs alike?

At this point teachers should go back to box 2 “What do we want to learn?” and highlight the teacher questions/provocations that were most effective in driving the inquiries.

What student-initiated actions arose from the learning?

Record student-initiated actions taken by individuals or groups showing their ability to reflect, to choose and to act.

Students started to identify similarities between Islam and other religions; for example, students shared that the Christians are like Muslims in their beliefs, but they have different practices.

Some students showed progress in their attitude towards different religions; for example, in their second visit to the church, they displayed better acceptance and respect as displayed in their behavior while inside the church. Students used their journal to record their reflection throughout the unit.

9. Teacher notes

This unit showed authentic arts inquiries, within the programme of inquiry. Mathematics concepts from the “shape and space” strand were also explored in the unit.

Although the school itself does not represent a diverse group of people from different belief systems, Lebanon is a culturally diverse country. We have learned a lot from the communities outside the school. The trips to the different religious building were a significant experience for our students who have only been to mosques. It was very important for us to go outside the school walls to gain a better understanding of the different cultures around us.

Example 4

Transdisciplinary theme: *How we express ourselves*

Central idea: *People express their traditions and beliefs through rituals and celebrations.*

Rationale

The Aga Khan Academy, Mombasa, is an IB World School offering the three IB programmes. It is a private school located in Mombasa, Kenya. The junior school has a population of nearly 400 students of mixed nationalities including those of European, South Asian and African heritage. This diversity of cultures provides an opportunity for the school community to share and learn from each other's cultures.

The unit of inquiry developed as part of this project falls under the transdisciplinary theme, "How we express ourselves". In this unit, grade 5 students explore and investigate the different ways that people express their traditions and beliefs through rituals and celebrations. The success of this unit was attributed to the high level of collaborative planning involving the grade 5 teachers, PYP coordinator, and the arts (music and visual arts) teachers. Each of the teachers involved in the planning for the teaching and learning for this unit contributed to ensuring that transdisciplinary connections were relevant and appropriately tied to exploring the central idea.

The presence of students from different nationalities with multiple ways of expressing their traditions, culture and celebrations gave us the opportunity to explore various learning engagements that addressed the lines of inquiry. Students brought in different artifacts and explained their relevance and importance to their own families. To broaden the inquiry, the teachers introduced other cultural practices from representative groups of the local community.

The exploration of traditions and beliefs is often tied to religion. Teachers were mindful to engage students to explore other influences on traditions and beliefs such as cultural traditions, country contexts and family history. These discussions proved to be very rich as they generated a deeper level of questioning.

The unit of inquiry lent itself well to an authentic integration of drama, music and visual arts. In visual arts, students investigated the key features of symbols relating to traditions and beliefs. In class, students used their visual arts skills to draw and paint their own rendition of symbols that were important to their own traditions and beliefs. In music class, students inquired into different musical pieces from various cultures. As part of a school drama production, students learned a variety of songs, representative of different cultures, and shared this with the school community.

The school community was given an opportunity to view the unit as it progressed and to provide reflections through an interactive display. The display allowed the students, parents and teachers to make connections to their own traditions and beliefs.

Since the unit of inquiry is concept-driven and not limited to an investigation using a singular cultural lens, any school can adapt the central idea and make it relevant to their own context. In a world where it is imperative that students understand, appreciate, and interact with various cultures, this unit of inquiry allows students to learn more about their own culture and also the cultures of others around them. It is the hope of The Aga Khan Academy that through this unit of inquiry, the students will gain and understand multiple perspectives and become more open-minded.

1. What is our purpose?

To inquire into the following:

- **transdisciplinary theme**

How we express ourselves

An inquiry into the ways in which we discover and express ideas, feelings, nature, culture, beliefs and values; the ways in which we reflect on, extend and enjoy our creativity; our appreciation of the aesthetic.

Central idea

People express their traditions and beliefs through rituals and celebrations.

Summative assessment task(s):

What are the possible ways of assessing students' understanding of the central idea? What evidence, including student-initiated actions, will we look for?

This will be a role play presentation where students are going to be working as an education officer in Mombasa museum. They will be assigned the task of producing an interactive information display for upper primary children to inform them on how people express their traditions and beliefs through rituals and celebrations. In the presentation students may include skills and understanding developed in information and communication technologies (ICT), visual art, music and language.

Teachers will be taking anecdotal records as they monitor the understanding of students by asking questions to find out whether they understand what they are doing in relation to the summative assessment task.

The criteria will focus on information the students convey about a particular ritual or celebration, its significance, and their responses and attitudes towards expressions of these beliefs and traditions.

Students will be assessed using a rubric for their museum displays.

Student-initiated activities will include looking at how they appreciate each other's religions and beliefs, how open-minded they are with each other and how interested they are to bring in items for the exploration table.

Class/grade: Grade 5 **Age group:** 10–11 years old

School: Adapted from planner provided by, and in collaboration with, the Aga Khan Academy, Mombasa

Title: *I believe*

Teacher(s): Grade 5 team

Date: August–October 2009

Proposed duration: 7 weeks



PYP planner

2. What do we want to learn?

What are the key concepts (form, function, causation, connection, perspective, and responsibility, reflection) to be emphasized within this inquiry?

Responsibility, causation, perspective

What lines of inquiry will define the scope of the inquiry into the central idea?

- *The rituals, celebrations, traditions and beliefs in our class (perspective)*
- *How we interpret other people's rituals and celebrations (responsibility)*
- *The significance of rituals and celebrations on our lives (causation)*

What teacher questions/provocations will drive these inquiries?

- *What happens during celebrations in our families?*
- *What are our different beliefs?*
- *In what ways do we view others' traditions and beliefs?*

Provocations: provide students with examples of artifacts from different cultures e.g. art work of Om, religious mats, incense, religious books, etc, and ask the students what the artifacts remind them of and why.

3. How might we know what we have learned?

This column should be used in conjunction with “How best might we learn?”

What are the possible ways of assessing students' prior knowledge and skills? What evidence will we look for?

Given the central idea, students will use a KWL chart to map out what they already **know** about the topic, what they **would like to find out**, and leave room to fill out what they have **learned** about the unit. The students are familiar with this chart and it is often used as a pre-assessment in the school. Using the KWL chart is an ongoing activity for this unit.

Teachers will find out the students' prior knowledge of celebrations and rituals, in particular the following:

- the rituals of others
- purpose behind the rituals
- why others have these rituals and celebrations

What are the possible ways of assessing student learning in the context of the lines of inquiry? What evidence will we look for?

Students use Venn diagrams to demonstrate an understanding of the similarities and differences between two different rituals or celebrations.

Students write a magazine article to report on a specific ritual or celebration. Students' articles will be combined to form a cultural magazine. Students peer edit each other's work using a checklist.

5. What resources need to be gathered?

What people, places, audio-visual materials, related literature, music, art, computer software, etc, will be available?

Library: reference books, “Celebrations Diwali” by Anita Ganeri, “My Hindu Year” by Cath Senker, “The Vatican and the Holy places”, “Guru Nanak and Sikhism” by Rajinder Singh. **People:** parents, guest speakers **Places:** temple, church and mosques. Photographs, dressing-up clothes. **Website** <http://www.reonline.org.uk> **DVD:** Understanding World Religion: Complete Series of Six Programmes

How will the classroom environment, local environment, and/or the community be used to facilitate the inquiry?

Displays of artifacts, relevant books available and within reach, display of students' work in the classroom.

4. How best might we learn?

What are the learning experiences suggested by the teacher and/or students to encourage the students to engage with the inquiries and address the driving questions?

In small groups, students discuss the central idea and share ideas with the whole class. Dictionaries are used to find meaning of unknown terms including synonyms and antonyms to unpack meanings. Students' responses and questions about the central idea are posted in the classroom and will be revisited throughout the unit.

Students bring in artifacts including cultural attire, food, and photographs from home as evidence of their beliefs. They talk about the significance of these artifacts to their beliefs and traditions. Students visit the school library to find out more about different celebrations and rituals.

Parents of the grade level are going to be invited to speak about their family's beliefs, rituals and celebrations so that the students are exposed to different beliefs and traditions. As students make connections to the central idea, these are recorded and categorized or grouped by cultural or religious background.

Students will keep a scrapbook to collect data including information, photos, diagrams, captions, reflections, interviews, and questions to build their understanding of the different ways people express their beliefs and traditions through rituals and celebrations. Students are going to be asked to choose a celebration or ritual to investigate in detail. They will write a report on this, explaining the significance of the event and what it represented. The written report will be peer-assessed using a class-created rubric.

Students will choose their own groups to work on their summative assessment task.

There will be mini-lessons to ensure the students have the skills needed to complete the project successfully (i.e. taking notes, writing interview questions, features of a report, etc).

What opportunities will occur for transdisciplinary skills development and for the development of the attributes of the learner profile?

Knowledgeable: The students will find out information on their culture and beliefs from primary and secondary sources.

Reflective: They will be able to reflect by giving thoughtful consideration to their own cultures as they present the information on their beliefs and how they celebrate and appreciate each other's beliefs and celebrations.

Communication skills: They will listen carefully to the guest speaker and their peers, asking questions in context. They will be able to explain the importance and relevance of their rituals and celebrations.

Research skills: Formulate questions (develop interview questions) Interpretation of data (i.e. We all celebrate birthdays, but how do we do it?)

6. To what extent did we achieve our purpose?

Assess the outcome of the inquiry by providing evidence of students' understanding of the central idea. The reflections of all teachers involved in the planning and teaching of the inquiry should be included.

The central idea worked well, it pushed the students' thinking beyond their prior knowledge. One of the most interesting discussions occurred around what was meant by celebration. ("Is it only a happy occasion or can a solemn occasion be a celebration?") "Are there cultures celebrating death?" "When is a ritual a celebration?") This was a great starting point to inquire into why we do the things we do and what factors influence how we express our beliefs and values through rituals and celebrations.

Throughout the unit of inquiry students spent most of the time researching cultures represented in the class and were impressed to find similarities between most of these. While our classes are culturally diverse, the teachers were careful to introduce other cultural practices from groups that were not represented in the student body but represented by the communities outside the school walls.

In our local context, religion plays a major role in the daily lives of the majority of our students' lives. Due to this, when talking about what influences the way we express our beliefs and traditions, the students very quickly made the link to religion. Some students at first believed that our rituals and celebrations were the result solely of our religious beliefs. We had to make a great effort in our discussions to extend our students' understanding of the other factors such as cultural traditions, context of country and family history. In the end, these discussions proved to be very rich in that the students were engaged in some higher level questioning about their own understandings. It is important to reflect on the diversity within a culture. How do we know? What other factors may have accounted for the differences/similarities?

How you could improve on the assessment task(s) so that you would have a more accurate picture of each student's understanding of the central idea?

The "cultural museum" created by the students for their summative assessment was a great success. The students thoroughly enjoyed building their mini exhibition and it was a wonderful tool for the teachers (and parents) to assess the individual student's understanding of the central idea. Using the artifacts in their display ensured that students had to inquire into the significance of the item and then explain the ritual or celebration that it represented. This, in turn, held students accountable to demonstrate their understanding of the central idea.

What was the evidence that connections were made between the central idea and the transdisciplinary theme?

The student discussions were very rich and they were continually bringing their ideas back to the transdisciplinary theme. Teachers ensured that they did not let this unit become a 'world religions' unit, but rather an investigation into how we express ourselves. The students' questions showed that they were thinking about why we express ourselves in different ways.

7. To what extent did we include the elements of the PYP?

What were the learning experiences that enabled students to:

- **develop an understanding of the concepts identified in "What do we want to learn?"**

*The students' understanding of **causation** was represented in the examples of rituals, traditions and celebrations that they looked into from the various cultures represented in our class. The students' presentations and discussion on artifacts provoked them to see the points of view (**perspective**) of their peers and made them think about their **responsibility** regarding the consequences of their actions in relation to these points of view.*

- **demonstrate the learning and application of particular transdisciplinary skills?**

Social skills: *respecting others' beliefs and cultures. The provocation noted in box 2 emphasized the students' need to respect others and to listen to the view points of others as they share their responses to the artifacts and music. Students reflected in their journal writing not only their responses to each provocation but also how the different responses of others affect them.*

Communication skills: *students listened carefully to the guest speaker and their peers, asking questions in context. They were able to explain the importance and relevance of their rituals and celebrations. Most of them were articulate as they explained their findings to guests visiting their galleries.*

Research skills: *Formulate questions (develop interview questions), interpretation of data (i.e. We all celebrate birthdays, but how do we do it?).*

- **develop particular attributes of the learner profile and/or attitudes?**

Open-minded: *the discussions and the presentations exposed the students to see and understand their peers' way of expressing their beliefs, traditions and culture.*

Inquirer: *they asked questions and researched information.*

8. What student-initiated inquiries arose from the learning?

Record a range of student-initiated inquiries and student questions and highlight any that were incorporated into the teaching and learning.

Why do some people believe in singular or plural deities?

Why do different groups have different calendars (different new years)?

The students investigated their questions throughout the course of the unit. The information they gathered was reflected in their scrapbooks and used in their comparisons of how different groups express their beliefs and traditions through their rituals and celebrations.

At this point teachers should go back to box 2 “What do we want to learn?” and highlight the teacher questions/provocations that were most effective in driving the inquiries.

One of the most powerful provocations was not actually listed in box 2 as it arose through student inquiry: “How do we know something is a celebration? Is it only a happy occasion or can a solemn occasion be a celebration e.g. When is a ritual a celebration? When is a celebration a ritual?”

Other significant questions came up such as “Is a Muslim wedding the same in Mombasa as it is in Toronto?” This kind of critical question was explored to ensure students understood that there are multiple factors in determining how we express our traditions and beliefs.

What student-initiated actions arose from the learning? Record student-initiated actions taken by individuals or groups showing their ability to reflect, to choose and to act.

Students initiated much of the creation of the cultural museum displays. They agreed to include traditional clothing and food as a part of their exhibit. They felt this would spark interest in their museum and attract a greater audience (which it did!). A student brought in a personal video to share with the class to illustrate a naming ceremony in her culture.

Students made informative brochures to share with the people who came to see their exhibit at the museum.

Appreciating students who wear hijab as religious attire and forming groups of different religions in the same stall and explaining their findings regardless of which religion or culture they came from.

Participating in celebrating Birthdays however they keep their cakes to eat after breaking their fast.

9. Teacher notes

In planning the unit, the grade 5 teachers worked closely with the PYP coordinator, single-subject teachers and the parents. Parents took a significant role as they were a primary source of information.

The Aga Khan Academy’s curriculum gives special emphasis to specific areas of study, commonly designated as ‘AK curricular strands’. There are five AK curricular strands (pluralism, ethics, governance and civil society, economics in a global society, and cultures), which have been chosen to serve the needs of students destined to become future leaders with local and global outlooks in the context of the developing world. They are meant to help young people clarify concepts and develop values that are consistent with the Academy’s and the IB learner profile. This unit of inquiry falls under the AK curricular strand of cultures.

Language: *Students improved their report writing skills to effectively communicate what they learned about cultures and celebrations. They clearly explained the purpose of the various artifacts used to express their beliefs from different cultures and religions. Students displayed good communication skills.*

Music: *The students listened to different music from the different religious traditions. They were also given the opportunity to perform and sing different songs related to the traditions. This incorporation of music into the unit of inquiry helped the students garner a deeper understanding of their own beliefs as well as develop an ongoing respect for other people’s beliefs through music.*

This was an exciting unit to work on with the grade 5 team. It sparked many animated conversations about our own beliefs and values and the role that religion plays in the expression of these beliefs. In the end, we all learned from our different perspectives and this illustrated to us what we would hope to provide for the students – multiple perspectives and a deepening of understanding. Students were engaged throughout this unit of study. They were able to make personal connections to the significant concepts and were most interested in learning more about why we do things in a certain way. It was interesting, too to see the children broaden their understanding by hearing them say things like, “We do that in my home, too.” or “I didn’t know you celebrated weddings like that.” or “The way we celebrate a birth in our family is very similar to the way you do.”

Example 5

Transdisciplinary theme: *Where we are in place and time*

Central idea: *Human migration is a response to challenges, risks and opportunities.*

Rationale

Prem Tinsulanonda International School is part of The Prem Center for International Education, a privately owned institution situated in Northern Thailand just outside the city of Chiang Mai. Northern Thailand has many influences from Myanmar, Laos, and Cambodia, with which it shares borders. It also has been influenced by China and other neighbouring countries. The school population of 480 students (ages 4–18) comes from over 30 countries, their families having migrated to Prem for many different reasons. We are a multicultural school in a multicultural country. Prem is an IB World School offering all three IB programmes.

This grade 5 unit of inquiry appears under the transdisciplinary theme “Where we are in time and place”. The central idea is “Human migration is a response to challenges, risks and opportunities”. The PYP key concepts for this unit are change, causation and perspective. The unit has replaced a previous grade 5 unit to create a unit more closely related to the students’ experiences through which authentic research opportunities are available in the local communities.

People move and relocate for a variety of reasons and their journeys have been very different. Migrants have contributed in many ways to the culture of the city; they also faced significant challenges. We recognize the importance of acknowledging and valuing the contributions made by the Chinese Muslim, Buddhist, Hindu, Sikh, Burmese, Korean and Western migrants to our community; this is one of the driving forces behind the unit. During this unit of inquiry, learners explored and shared their personal and family stories and experiences, as well as inquiring into other people’s stories and experiences. This unit gave the students the opportunity to become increasingly more sensitive to, and aware of, others, not just in their local or national community but also in the international community and, as such, to develop a more global perspective.

The process of developing this unit included close collaboration between the PYP coordinator, the grade 5 teachers, the teacher–librarian, the arts teacher and the Thai culture teachers. The central idea was taken from the sample programme of inquiry from the document *Developing a transdisciplinary programme of inquiry* (January 2008). In this unit of inquiry, classroom, single-subject and support teachers investigated opportunities for the students to visit places of significance to the central idea and identified community leaders who would be willing to share their experiences with our students. Students understood the basic human need to establish a community and how community members express their community membership. Additionally, students identified symbols that are representative of other cultures. In their investigations, students construct meaning and understanding of why people made the decision to migrate, the challenges they face as immigrants and the opportunities they hope to gain in their new home.

We believe that stories or narratives are a powerful way of sharing and learning about personal histories. The unit began with individual and/or family accounts or stories of migration. Students learned about shared humanity and developed empathy for, and understanding of, the lives of others through hearing and reading stories, real or fictional. Being able to acknowledge that the same story can have many perspectives was an important skill explored throughout the unit.

Developing international-mindedness, through the IB learner profile, especially being open-minded, knowledgeable and caring, together with the PYP attitudes of appreciation, empathy and tolerance, was a strong focus of the unit. The learning engagements in this unit provided for the development of transdisciplinary skills (thinking, research and communication skills) as students read stories, listened to guest speakers tell their stories, explored the local community, interpreted what they discovered, and analysed and synthesized this information. The research component of this unit included both primary and secondary sources. Students constructed their own questions to use in the survey and asked the guest speakers compelling questions. The summative assessment task required the students to discuss and clarify the information they collected and to present their findings effectively to their audience (parents, teachers and peers).

There were many opportunities for students to present their work in a variety of ways especially using information and communication technologies (ICT). We investigated online tools such as *Voicethread* (a web-based collaboration and sharing tool) as a means for students to share their new understanding and to receive feedback from teachers, parents and peers. The collaborative meetings made for authentic connections to the unit in arts and Thai culture classes.

Through participation in this project, the scope of the unit was broadened to ensure that all migrant groups were represented for an authentic inquiry. Thailand is a predominantly Buddhist country and it is often easy to overlook the contributions made by other migrant groups like the Chinese Muslim community in Chiang Mai. The project's field experience in Zanzibar highlighted the importance of exploring and including all possible influences in the community, and of using local primary resources to create a robust inquiry.

It is important to seek out local historians and others who may be able to provide primary resources for a unit. Providing opportunities for our young students to explore the historical aspects of Muslim migration from China to Chiang Mai was a challenge that we overcame by providing archival photos of early Muslim traders and by having descendants of early Chinese Muslim traders tell their family stories. Keeping to the topic was sometimes a challenge as part of the inquiry led to an investigation into refugees.

The collaboration between the classroom, single-subject and support teachers was a successful aspect in the process of developing the unit. There were regular meetings to discuss each stage of the process. We did find it challenging to keep the content and direction of the unit age-appropriate. We had some discussion about how to keep the unit positive as even with the use of stories it sometimes, naturally, led to discussion about issues that were too complex for young children.

The unit of inquiry has global relevance. People continue to migrate, and though reasons may vary, there are many commonalities that can be explored through the sharing of stories. Storytelling and listening to stories is universal and students at any grade level can participate in this unit. Including a Muslim perspective is appropriate in many cultural contexts and teachers should be encouraged to explore the many perspectives available as primary resources in the school community.

1. What is our purpose?

To inquire into the following:

- **transdisciplinary theme**

Where we are in place and time

An inquiry into orientation in place and time; personal histories; homes and journeys; the discoveries, explorations and migrations of humankind; the relationships between and the interconnectedness of individuals and civilizations, from local and global perspectives.

- **central idea**

Human migration is a response to challenges, risks and opportunities.

Summative assessment task(s):

What are the possible ways of assessing students' understanding of the central idea? What evidence, including student-initiated actions, will we look for?

Students will:

- create a photo story board or photo essay (may choose to use Voicethread, Publisher, ComicLife) which explores opportunities, challenges and risks, associated with being a migrant. Examples of migrant stories they might tell are: restaurants set up to serve the Muslim, Korean, Burmese communities; the Christian missionaries buried in the local cemetery; places of worship that meet the spiritual needs of a particular community; Indian and Muslim businesses formed as a result of trade opportunities. Evidence of understanding will be in the relevance of photos and will also be visible through the interaction and feedback from viewers (parents, teachers & other students) of the Voicethreads.
- recreate the "suitcase" provocation of essential items for a migrant (specific group might be identified). Explain the significance of what your suitcase might contain. This could be a formative assessment task to begin the unit and could follow the reading of "The Arrival" by Shaun Tan. The immigrant in the book carries a suitcase of special things—What would you take if you were migrating somewhere—justify your choices?
- write a narrative from the point of view of one person who has migrated or is a refugee because of one of the reasons we have looked at (economic, religious, political, lifestyle etc.)
- create a collage from photos collected during the fieldtrip and explain the significance of their choice of photos linking to the central idea.

Class/grade: Grade 5

Age group: 10–11 years old

School: Adapted from planner provided by, and in collaboration with, Prem Tinsulanonda International School

Title: Migration

Teacher(s): Grade 5 teachers and teacher-librarian

Date: September–November 2009

Proposed duration: 7 weeks



PYP planner

2. What do we want to learn?

What are the key concepts (form, function, causation, change, connection, perspective, responsibility, reflection) to be emphasized within this inquiry?

Causation, change, perspective

What lines of inquiry will define the scope of the inquiry into the central idea?

- The reasons why people migrate
- Migration throughout history (local, regional and international)
- Migrant groups living in Chiang Mai
- Effects of migration on communities, cultures and individuals

What teacher questions/provocations will drive these inquiries?

- What is it like to be a migrant?
- What cultural markers can we use to identify different influences migrant groups have in our community?
- What are some of the opportunities and struggles migrants face?

Provocation: a suitcase appears in the classroom containing a few items such as a pencil and paper, a book, clothes, etc. Over time students can add or remove items but must justify their actions. The owner of the suitcase may change throughout the unit to include a forced refugee, a migrant fleeing religious persecution, a migrant seeking a better economic future etc.

3. How might we know what we have learned?

This column should be used in conjunction with “How best might we learn?”

What are the possible ways of assessing students’ prior knowledge and skills? What evidence will we look for?

Students contribute to brainstorming session on stories of personal links or items from news that they associate with topic, understanding of vocabulary related to the unit.

“Pack a suitcase” what would be important to you if you were migrating to a new country, town, or city? What was important to you when you moved to a new country?

What are the possible ways of assessing student learning in the context of the lines of inquiry? What evidence will we look for?

Students are able to:

- create a survey of appropriate questions for distribution to Prem families to find out about their migration history and experiences
- analyze and display information gained from survey as a graph and make links with what they discovered through research
- order historical information on a time line and understand that migration is an ongoing process
- create a world map, plotting places where migrants come from/go to, using results of survey from families and stories and make assumptions based on research for the journeys outlined on the map
- recognize elements in the stories of personal migration by reading, discussing, sharing answers to lines of inquiry questions found in texts. Students respond appropriately to stories showing comprehension, empathy and understanding (see resource list for fiction stories)
- ask guest speakers higher order questions based on their initial research about migrants and refugees. “How did you feel...? What is your life like now?” Students contribute to class discussions related to the teacher questions and lines of inquiry
- keep a written journal over the course of the unit which will show growth in understanding of the topic. Narrative reflects an understanding of the various reasons people migrate, written from different perspective, illustrating empathy and understanding.

4. How best might we learn?

What are the learning experiences suggested by the teacher and/or students to encourage the students to engage with the inquiries and address the driving questions?

- Use a mindmap or have a brainstorming session to note prior understanding of terms including migration, immigration, refugees, asylum seekers. Define terms above using dictionaries, books and online resources.
- Students create an interview/survey sheet for school families to determine the reasons for migration such as economic, choice, environmental, religious, race, political, force/choice.
- Through discussion, identify the things new migrants would want/need when they arrive in a new place. Decide on cultural markers in the community that show influence of migrants, including food, architecture, dress, and business, religious, art and cultural sites. During the fieldtrip find evidence in Chiang Mai of migrants’ positive impact on our community.
- Collect photos to create photo essays to record and comment on. Some markers may include businesses, restaurants, libraries, temples, China Town, mosques.
- Literature Circle: using a variety of migration/refugee stories, students discuss the common themes, situations and settings in the stories, answering questions and taking responsibilities for the various roles of time keeper, recorder, questioner and summarizers.
- Invite guest speakers representing migrant groups to speak to students about their experiences, specifically to talk about risks, opportunities and challenges.
- In **art class**, students create a collage in response to the teacher questions (box 2) to show awareness that people use arts as an expression of their beliefs and practices where they live.
- Students work with **teacher-librarian** to locate and select suitable resources; correctly reference resources using bibme.org; think of questions to ask guest speakers; and design, create and share presentation using VoiceThread.
- In **Thai culture class**, students inquire into specific things new migrants would need to be aware of when they move to Chiang Mai. Students look into the similarities and differences between celebrations eg Loy Kratong (Thai holiday story) and The Moon story (Muslim holiday story). Students design a pamphlet for new students which includes significant events and places, cultural expectations and behaviours to observe.

What opportunities will occur for transdisciplinary skills development and for the development of the attributes of the learner profile?

Transdisciplinary skills

- Communication skills are developed when students are given opportunities to listen to visiting speakers and speaking about their photo essays
- Thinking skills, in particular, acquisition of knowledge are developed as students construct the survey questions, gather results and analyze results.
- Self-Management skills are developed as students organize the information from the survey out to parents and as they manage their time to complete their VoiceThread and post it online for people to comment on
- Research skills are developed as students learn the value of using primary sources in research
- Social skills are developed when students are given opportunities to collaboratively work with others

PYP attitudes: Appreciation, empathy and tolerance are embedded in the learning engagements in this unit.

Learner profile: In preparing for the summative assessment, students were given opportunities to demonstrate that they can be communicators, thinkers and risk takers.

5. What resources need to be gathered? (more resources listed on section 9 of this planner)

What people, places, audio-visual materials, related literature, music, art, computer software, etc, will be available? • use video and digital still cameras to record information on fieldtrips and to record guest speakers • web-based collaborative software www.voicethread.com • book resources including: “The Arrival” by Shaun Tan, “The Island” by Armin Greder • teacher notes including resources used for research and for literature circle books • newspapers and TV news programs: local and international: our region is often a focus of news about forced migration, refugees, illegal migrants etc.

How will the classroom environment, local environment, and/or the community be used to facilitate the inquiry?

- create a list of possible places to visit for Voicethread photo essays • visit Chiang Mai city to identify cultural markers • invite migrant parents to share stories and information • guest speakers: from Burmese Migrant Education centre in Chiang Mai (Dr. Lwin), student’s father (Burmese migrant), parent/teacher (Zimbabwe immigrant), representative of Muslim community, Nelson (Burmese refugee)

6. To what extent did we achieve our purpose?

Assess the outcome of the inquiry by providing evidence of students' understanding of the central idea. The reflections of all teachers involved in the planning and teaching of the inquiry should be included.

Students can explain a range of risks, challenges and opportunities faced by migrants including language barriers, cultural expectation regarding laws and behavior, different food, appropriate places to worship, access to employment. They took appropriate photos identifying cultural markers of various migrant groups on the field trip.

The narrative written by the students provided evidence of a greater understanding of the risks, opportunities and challenges faced by migrants. Students wrote from various perspectives including refugee and economic migrant.

How you could improve on the assessment task(s) so that you would have a more accurate picture of each student's understanding of the central idea?

Voicethread does provide an accurate picture of each student's understanding of the central idea as it is an individual task, although the choice of photos may have been improved with more discussion with the teacher.

The narrative task could be improved with more teachers modeling the task.

What was the evidence that connections were made between the central idea and the transdisciplinary theme?

Students were able to identify settings in stories and transfer this information to the map showing the journeys taken. Students could also identify significant dates when various migrant groups arrived in Chiang Mai and were able to add this information to a timeline.

Students were able to discuss the various reasons why people migrate from one country to another and were also able to identify the "push" factor such as economic, religious persecution, war, political, especially relating to their own circumstances and to the migration stories they read as part of the literature circle. They were able to identify situations that provided evidence of people who faced risks and challenges as well as those who responded to opportunities when they migrated.

Student journal entries developed over the unit and showed a growth in student understanding of where people have come from, where they want to go and why and how things have changed over time.

7. To what extent did we include the elements of the PYP?

What were the learning experiences that enabled students to:

- **develop an understanding of the concepts identified in "What do we want to learn?"**

causation: as students identify the consequences of migration

change: as students identify the things new migrants would want/need when they arrive in a new place.

perspective: students are given the opportunity to make interpretations of their findings about the different migrants in the community

- **demonstrate the learning and application of particular transdisciplinary skills?**

research skills: observing, gathering, organizing and interpreting information and presenting findings from the field trip, using printed resources, internet and photos, formulating questions for the family survey, analyzing and presenting information from the survey.

communication skills: listening, asking guest speakers questions, discussing ideas on Voicethreads

- **develop particular attributes of the learner profile and/or attitudes?**

Learner profile

- **open-minded:** students gain more appreciation of their own and others' journeys
- **knowledgeable:** contributing to class discussions and organizing own research
- **caring:** students demonstrated caring attitudes towards new students arriving in the class, eg following discussion on how it feels to be a migrant and how one is treated in a new situation one student responded "I remember when _____ arrived and we took care of her and made her feel at home". The new student verified this statement.

PYP attitudes:

- **empathy:** learning about migrant issues and experiences from the guest speakers, reading stories about migrants and refugees
- **appreciation and respect:** learning about how immigrants contribute to communities and to respect people from different cultures in our own community

8. What student-initiated inquiries arose from the learning?

Record a range of student-initiated inquiries and student questions and highlight any that were incorporated into the teaching and learning.

Students were asked to write questions about migration. These questions were the starting point of their inquiry.

Students were able to choose the stories they read and responded to during literature circle. The discussions they were involved in were student-directed. Students were responsible for various roles including creating and leading discussions on the books, summarizing the main theme in the books, keeping the group on task and reporting back to the class.

The summative assessment using VoiceThread provided students with the opportunity to choose what photos and information they wanted to include.

At this point teachers should go back to box 2 “What do we want to learn?” and highlight the teacher questions/provocations that were most effective in driving the inquires.

The teacher question “What cultural markers can we use to identify different influences migrant groups have in our community?” was effective in focusing the students especially during the field trip. Students were able to take photos of specific identifying markers to use in their Voicethread presentations.

“What is it like to be a migrant?” was explored in-depth through literature circle. All students in the class were able to access age- and reading-level appropriate stories to gain a good understanding of what it is like to be a migrant/refugee from many perspectives.

The question “Why do people migrate?” allowed the students to draw on their personal family stories of migration and was an effective way to begin looking at other migrant stories.

Using picture books, especially “The Arrival” (Tan) was an effective way of introducing the inquiry as it posed so many questions and wonderings because of the way it is presented. It is a wordless picture book with an “other world” setting. The picture book entitled “The Island” highlighted the darker side of migration.

What student-initiated actions arose from the learning?

Record student-initiated actions taken by individuals or groups showing their ability to reflect, to choose and to act.

Students shared their new knowledge and understandings with parents and other teachers via Voicethread.

After the Burmese guest speaker talked about refugee needs, some students suggested collecting clothes and school stationery to send with him on his next trip to the refugee camps.

9. Teacher notes: bibliography, including books used for the literature circle

Bradley, Catherine. Freedom of Movement (What Do We Mean by Human Rights?). UK: Franklin Watts Ltd, 2006. Print.

Ellis, Deborah. Children of War: Voices of Iraqi Refugees. New York: Groundwood Books, 2009. Print. Iraqi children speak about how war and displacement affects their lives.

Gifford, Clive. Refugees (World Issues). London: Belitha Press Ltd, 2002. Print. Gleeson, Libby, Mahtab's Story.

London: Allen & Unwin, 2009. Print. The story of a young Muslim girl who is forced to leave her home and travel from Harat to Pakistan, and then on to Australia, facing danger and uncertainty on the way.

Gleeson, Libby. Refuge. New York City: Puffin, 1998. Print.

Gleitzman, Morris. Boy Overboard. Ringwood, Victoria, Australia: Puffin Books, 2003. Print. Story of Jamal and his family and their journey from Afghanistan to Australia, where they begin a new life as refugees.

Greder, Armin. The Island. London: Allen & Unwin, 2008. Print. A picture book for older children and adults. The

Island is a metaphorical account of the way in which prejudice and fear create barriers between people which leads to others being excluded. It offers reasons why refugees exist and why detention centers and refugee camps have become so prevalent throughout the world. Teaching notes available.

Hawke, Rosanne. Soraya the Storyteller (Takeaways). London: Lothian Books, 2004. Print. Keane.

Ho, Minfong. The Clay Marble. 1 New Industrial Road: Times Books, Singapore, 1995. Print. The story of a 12-year-old girl fleeing her Cambodian village and making a new home in a refugee camp on the Thai-Cambodian border.

How My Parents Learned to Eat. New York City: Houghton Mifflin, 1984. Print.

Khan, Hena. The Night of the Moon: A Muslim Holiday Story. San Francisco: Chronicle Books, 2008. Print.

Khan, Rukhsana. The Roses in my Carpets. Markham, Ontario: Fitzhenry and Whiteside, 2004. Print. The story of a young Muslim refugee living in refugee camp.

Langley, Andrew. How Much Should Immigration be Restricted? Oxford: Heinemann, 2008. Print.

Levine, Ellen. I Hate English! (A Blue Ribbon Book). New York: Scholastic Paperbacks, 1995. Print. Guided reading pack, 4 copies with audio cd.

Marsden, John. Home and Away. London: Lothian Books, 2008. Print.

Mead, Jean. How do people express their faith through the Arts? London: Evans Brothers, Limited, 2008. Print.

Mead, Jean. What do signs and symbols mean in Religion? London: Evans Brothers, Limited, 2008. Print.

Mead, Jean. What Religions are in our Neighborhood? London: Evans Brothers, Limited, 2008. Print.

Miller, David. Refugees. London: Lothian Books, 2005. Print. Two wild ducks become refugees when their swamp is drained. Their journey in search of a new home exposes them to danger, rejection and violence before they eventually find sanctuary and a new home.

Parker, Lewis K. Why Irish Immigrants Came to America (Parker, Lewis K. Coming to America.). New York: Powerkids Press, 2003. Print. (and other books in the series)

Recorvits, Helen. My Name Is Yoon. New York: Farrar Straus Giroux, 1980. Print

Say, Allen. Say, Allen. Grandfather's Journey. Boston: Houghton Mifflin, 1993. Print.

Shea, Pegi Deitz. The Whispering Cloth: A Refugee's Story. Honesdale, PA: Boyds Mills Press, 1996. Print. Set in a refugee camp in Thailand, a Hmong child tells a story common to many refugees around the world. Displaced because they look different or have different beliefs, it may take many years for them to find a new homeland.

Sofia Meza. Dear Abuelita (Greetings: Red Level). Barrington: Rigby, 1997. Print.

Tan, Shaun. The Arrival. New York: Arthur A. Levine Books, 2007. Print.

Wilkes, Sybella. One Day We Had to Run! unknown: Evans Brothers, Limited, 2000. Print. Stories of three children who were forced to become refugees. The children are from Somalia, Sudan and Ethiopia.

Wilson, Ruth. Immigration (Issues in Our World). UK: Franklin Watts Ltd, 2007. Print.

Example 1: Mapping my dreams—how art can inspire life journeys

Visual arts

MYP year: 2

Rationale

The school

The Center For Inquiry (CFI) is a state funded, K-8 school located downtown in Indianapolis, Indiana, USA. We have a racially and economically diverse population of 389 students and 28 teachers. We offer the PYP and MYP. Over half of our students, 58%, live in poverty, as identified by the number of students who qualify for the federal free or reduced lunch programme. Our school includes a variety of racial groups: 55% are African American, 35% White, 5% Hispanic, 2% Native American, 2% Asian and 1% Indian. The CFI is a magnet programme within the Indianapolis Public School (IPS) system. IPS is the largest state funded school system in the state of Indiana. CFI was founded by a group of teachers and opened the current programme in 2000. The programme began as a student-centred, inquiry magnet. In 2005 we were the first authorized PYP school in the state of Indiana and, in 2007, we were authorized to teach the MYP. We pursued the IB because we felt it matched our pedagogical beliefs and instructional practices.

Context of the unit in the curriculum

At CFI, grade 7 students have visual arts for 18 weeks and music for the following 18 weeks. The art classes meet for 40 minutes twice a week. In Indiana, we have state standards and, in grade 7 humanities, students explore world religions. This unit was developed in collaboration with the humanities and language A teachers. Our objective was to create a multi-disciplinary unit for the first quarter, based on a book introducing students to Muslim cultures. We chose *The Alchemist* by Paul Coelho. We chose this work because the protagonist, Santiago, travels to North Africa and is introduced to the Muslim world for the first time. As Santiago experiences Muslim cultures, we could expand upon the experiences and perspectives in class. We felt the students would easily connect and engage with teenager Santiago because of his age and because of the adventure aspects of the story. Students read *The Alchemist* as part of their work in humanities and the story is used as a stimulus for the work in art.

I focused the unit through health and social education as I wanted the students to analyse Santiago's journey and apply aspects of his experiences, including of Muslim cultures, to their own lives and artwork. As Santiago is on his journey, he uses a variety of maps, signs, guides and skills. These elements were incorporated into the art unit—students create a map of their own dreams or goals and write an essay about how Santiago's journey inspired their own map—alongside Muslim artistic elements. A strong aspect of this unit is the reflection on personal growth and how this can be expressed through art, which is a part of the student learning experience.

Developing the unit

This unit has been taught twice, and has undergone significant revisions. Through collaboration with the humanities and language A teachers, we moved the unit from 8th grade to 7th grade, to better match with Indiana state standards. The three teachers wrote their units together and, throughout the unit, would meet to discuss student questions, content and assessment, and to share resources. Because of this collaboration, the units were more cohesive and meaningful for the students.

Muslim context

This unit addresses aspects of Muslim cultures, particularly the use of calligraphy in Muslim art and the frequent use of pattern. We also examined the contexts of the Five Pillars of Islam (presented to students as the "Five Pillars of Wisdom"), the variety of Muslim dress, Muslim proverbs, and symbols found on doors in Zanzibar and used by Muslim artists.

Global transferability of the unit

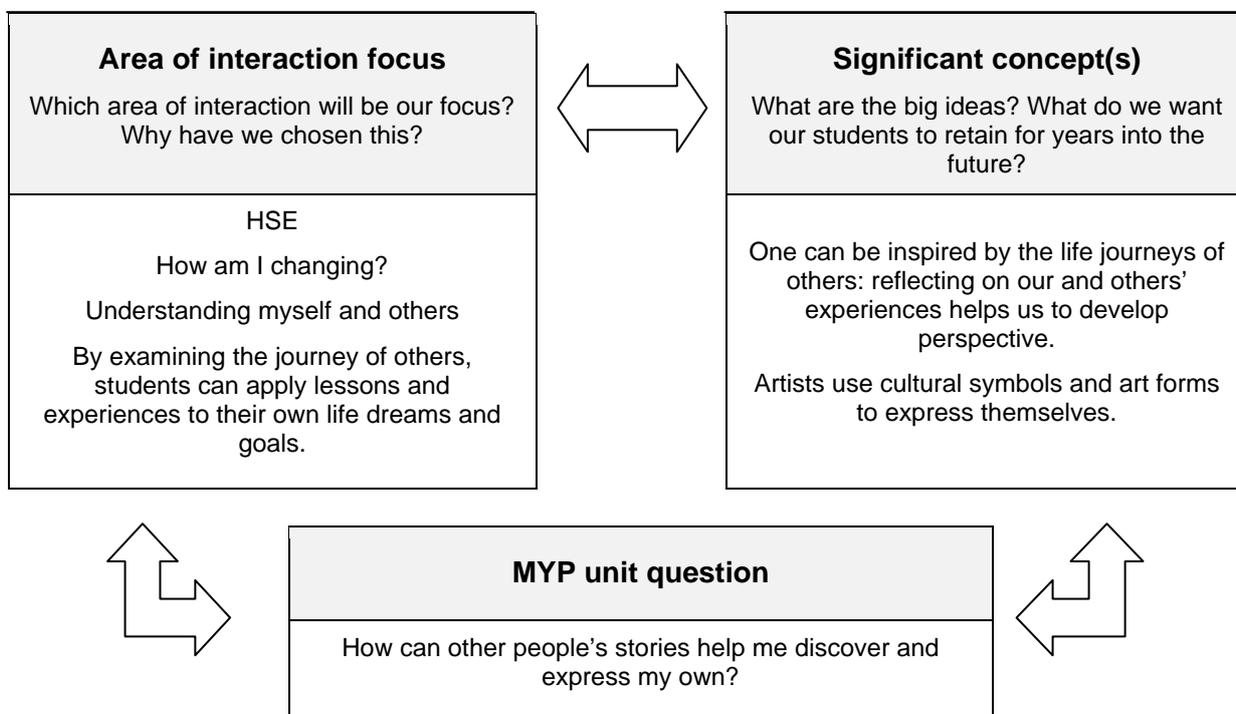
This unit offers a creative way to address Muslim cultures through literature and art, and offers an example of how teachers can work from a piece of literature and connect it to their subjects in a meaningful manner. Local curricular demands are met in this unit; however, it could be adapted to meet other local contexts through the choice of cultures represented in the unit, involving choices about the resources and stimuli used.

MYP unit planner

Adapted from planner provided by, and in collaboration with, the Centre For Inquiry.

Unit title	Mapping My Dreams
Teacher(s)	Visual arts teacher (Center For Inquiry)
Subject and grade level	Visual Arts, Grade 7 [MYP 2]
Time frame and duration	First Quarter, 16 x forty minute sessions

Stage 1: Integrate significant concept, area of interaction and unit question



Assessment

What task(s) will allow students the opportunity to respond to the unit question?

What will constitute acceptable evidence of understanding? How will students show what they have understood?

Culminating Tasks:

Reflective Essay that addresses the following (Criterion A):

- Impact of reflecting on someone else's experiences or journey, in this case Santiago, on the development of personal artwork.
This involves students identifying the themes of his journey and explaining how they have incorporated them into their own work. For example, the use of signs, guides, skills and values. Students will have previously analysed Santiago's journey through various learning experiences.
- Impact of exploring Muslim cultures and symbols and how they applied this to their artwork
- Use of proverb, calligraphy, and symbols

Students think about the contexts within which they have developed their artwork: the personal context of creating artwork reflecting experiences, life dreams and journeys, and being aware of influences on their art work; the cultural context of Muslim art.

Creation of Personal Legend Map (Criterion B):

Create a 2-D visual artwork that is a map of their personal dreams or goals.

Content of the artwork:

- Personalized Five Pillars of Wisdom (identified by the student, but inspired from the Five Pillars of Islam)
- Steps to the achievement of goal
- Key people that help them achieve their goals
- Inspirational proverb or quote from The Alchemist

Techniques:

- Use of Muslim symbols and Calligraphic styles
- Map-like qualities (realistic or abstract)

Developmental Workbook (Criterion C):

- Students will show evidence of notes from presentations and evidence of participation in the creative design cycle.
- Students will reflect on the impact of peer collaboration and critique, and how this helped the development of their artwork. This is a reflection on the process of creating visual artwork, in relation to their own work.

Which specific MYP objectives will be addressed during this unit?

The Indiana State Standards for visual arts explored in this unit are listed below the objectives.

Objective A: Knowledge and Understanding

- Demonstrate knowledge and understanding of Muslim art in relation to cultural and personal contexts
- Demonstrate knowledge and understanding of the elements of the Muslim art forms studied and processes of visual art
- Communicate a critical understanding of Muslim art forms and cultures in the context of own work

IN Standard 1 – Understand art in relation to history and past and contemporary culture

IN Standard 3 – Describe, analyze and interpret works of art and artefacts, formulating a critical stance

IN Standard 4 – Theorize about art and make informed judgments

IN Standard 5 – Reflect on and discuss the nature of art, aesthetic experience, and aesthetic issues concerning the meaning and significance of art

Objective B: Application

- Develop an artwork that utilizes a theme of personal legends and Muslim tenets, which is both visually expressive and communicates the artist's life goals
- Utilize and build upon 2-D skills to create a drawing using the media of one's choice* and calligraphy tools

*Available mediums: pencil, pen, marker, colour pencil, water-colour pencil, pastels, chalk

IN standard 8 – Experience the integrative nature of visual arts, other arts disciplines, and disciplines outside the arts, and understand the arts as a critical component of learning and comprehension in all subject areas

Objective C: Reflection and Evaluation

- Reflect critically on their own artistic development and processes at different stages of the unit
- Evaluate their work
- Use feedback to inform their own artistic development and processes

IN Standard 6 – Develop a range of subject matter, symbols, and ideas for artwork and utilize skills of critique reflection and revision

Which MYP assessment criteria will be used?

Criterion A: Knowledge and Understanding – Rubric used to score students' final essay exam

Criterion B: Application – Rubric used to score student artwork

Criterion C: Reflection and Evaluation – Rubric used to score students' participation in critique

Stage 2: Backward planning: from the assessment to the learning activities through inquiry

<p>Content</p> <p>What knowledge and/or skills (from the course overview) are going to be used to enable the student to respond to the unit question? What (if any) state, provincial, district, or local standards/skills are to be addressed? How can they be unpacked to develop the significant concept(s) for stage 1? (*Moved to assessment section in Stage 1)</p>	
<p>Investigation</p> <ul style="list-style-type: none"> • Personal dreams/goals inspired by journeys of others in both literature and art • Muslim cultures and art forms • Artworks that employ map-like qualities <p>Terminology/vocabulary</p> <ul style="list-style-type: none"> • Five Pillars of Islam: Shahada, Zakat, Salah, Hajj, Saum • Muslim cultures • Proverbs and Qur'an • Calligraphy pen, ink, nib, Arabic • Abstract vs. literal representation • Muslim symbols and symbolic framing; tessellations 	
<p>Approaches to learning</p> <p>How will this unit contribute to the overall development of subject-specific and general approaches to learning skills?</p>	
<p>Investigation: Use of variety of resources to gain knowledge of content, identify and develop links between the content studied in different subjects</p> <p>Application skills: Use the creative design cycle, clearly present ideas</p> <p>Critique skills: Monitor and evaluate strengths and weakness in one's work and the work of others, actively listen to the perspective of others</p> <p>Self-management skills: Exhibit goal-setting and time-management skills, cooperative learning, organized notes in developmental workbook (DW), properly store and care for art and art supplies</p>	
<p>Learning experiences</p> <p>How will students know what is expected of them? Will they see examples, rubrics, templates?</p> <p>How will students acquire the knowledge and practise the skills required? How will they practise applying these?</p>	<p>Teaching strategies</p> <p>How will we use formative assessment to give students feedback during the unit? What different teaching methodologies will we employ? How are we differentiating teaching and learning for all? How have we made provision for those learning in a language other than their mother tongue? How have we considered those with special educational needs? Do the students have enough prior knowledge? How will we know?</p>

Communicating Student Objectives

- Discuss the guiding question and significant concepts of the unit. Students will record questions on the chalkboard (parking lot)
- Discuss final scoring rubrics, clarifying and revising as needed

Student Inquiry

- Personal dreams/goals as inspired by journeys of others in both literature and art
 - As a class, identify the main aspects of Santiago's journey and create a *graphic organizer* illustrating the elements
- Muslim cultures and art forms
 - *Guest speaker* will introduce the Five Pillars of Wisdom
 - Movie of Zanzibar doors
 - Teacher PowerPoint® of symbols
- Muslim Proverbs
 - *Pick, Pair, Share*

Planning/Practising

- Series of graphic organizers (same organizer used to decode Santiago's journey) that will identify: personal life dreams/goals, personal core values, map of their dreams – needed skills, signs and guides, and visual features
- Practise drawing Muslim symbols and sketches of how these symbols could be incorporated into their final artwork
- Practise using the calligraphy pens by picking one of the Muslim proverbs to write in calligraphy and illustrate

Critique/Evaluation

- Participate in a variety of critiques throughout the unit. Written record in DW.
- Refine work based on critique feedback. Emerging mastery of this skill is expected.

Creating

- Utilize the planning sheets and project checklist to create an artwork that reflects their personal dream or goal, key guides, steps and skills, a quote from The Alchemist, map-like features, and Muslim symbols or calligraphic style
- Use materials in the proper manner and collectively care for and create in the studio space
- Work collaboratively with others, seek and offer feedback

Formative Assessment

- Pre-diagnostic observation – facilitate critique of exemplar artwork and record student participation
- Variety of reflective writings and planning sheets will be collected and feedback will be provided
- Written documentation of peer critique
- Two checklists culminating their final artwork, essay, and DW elements

Facilitation of Inquiry

- *Facilitate discussion and visual mapping* of Santiago's journey: Key aspects – goal, steps, guides, proverbs, personal skills/values
- *Present movie and PowerPoint®* on the Muslim use of symbols in Zanzibar doors
- *Lead Socratic Seminar* about proverbs
 - What is a proverb?
 - What proverb did you pick?
 - What do you think it means?
 - What did your partner think it meant?
 - How were your perceptions different? Why?
 - How are proverbs culturally relevant?
 - What do proverbs tell you about a person?
 - What proverbs has Santiago experienced?

Planning/Practising

- Provide project description and project checklists, and graphic organizer for Life Map
- Guided instruction in the following skills: calligraphy, symbolic representation (how to draw tessellations and other Muslim patterns)
- Review student graphic organizer and provide feedback
- Students needing special accommodation will have extended time to complete work, support with note taking, and verbal explanation of expectations

Critique/Evaluation

- Provide a variety of masterworks for the students to critique. These pieces should allow the emerging artist to explore: Muslim art forms, calligraphy, and artists who utilize map-like qualities in their work.
- Observe active participation in critique, support students who are new to the process (offer 3 Stars and 1 Wish Strategy)

Creating

- Provide 2-D materials and independent support as needed
- Provide daily feedback and help set progress goals
- Review project checklist when half of the studio sessions have past, help set progress goals

Resources

What resources are available to us?

How will our classroom environment, local environment and/or the community be used to facilitate students' experiences during the unit?

The Alchemist, by Paulo Coelho

Proverbs by Muslim authors

A variety of art images that include: Muslim art and symbols (photographs of the doorways in Zanzibar)

Art that is created using a map or map-like qualities (Jaune Quick-to-See Smith, *Where Do We Come From? What Are We? Where Are We Going?*; Miriam Schapiro, *My History*; David Hockney, *Mulholland Drive*; Lois Mailou Jones, *Ode to Kinshasa*; Bihzad, *Building of the Palace of Khawarnaq*)

Muslim artefacts that include: prayer mats, vases and plates adorned with calligraphy, traditional clothing, incense burner, music from Zanzibar to play as students work

Muslim parent will come to present the five Pillars of Islam

We will take a walking field trip to the Murat, a local theatre with Muslim architectural qualities

Ongoing reflections and evaluation

What did we find compelling? Were our disciplinary knowledge/skills challenged in any way?

The Zanzibar and Arabian artefacts, photos, testimonials and movies I presented compelled the students. I had gained a deeper understanding of Muslim symbols and art forms from the local artist John DaSilva and the students were very interested in my visit with him and my feelings about the experience. The largest disciplinary skill challenge that arose was introducing calligraphy in the time I had allotted. In the future, my objective is to introduce students to calligraphy in grade 6 so that, by year 7, they are familiar with the tools and methods.

What inquiries arose during the learning? What, if any, extension activities arose?

Why do some Muslim women wear the clothes that they wear and do they feel oppressed? Exploration of the diversity of clothing in Muslim countries.

How did we reflect—both on the unit and on our own learning?

Student reflections were recorded in the essay and developmental workbooks.

Teacher reflections were recorded daily on lesson plans and used to modify subsequent daily objectives.

Which attributes of the learner profile were encouraged through this unit?

All. This is the first unit of the school year and it provided many opportunities to review, and build on the knowledge and application of, the learner profile.

What opportunities were there for student-initiated action?

I introduced the students to the Five Pillars of Islam and led the classes in an activity where each student identified their own five pillars or five core values. After identifying the five pillars, students were asked to identify a 'minister' or 'board of trustees' for each pillar. For example, one of my pillars is perseverance and I identified Frida Khalo. The ministers could be dead or alive, famous or someone they know. This simple activity had a big impact. Many students identified teachers and other people in their lives. After class, many contacted the people and discussed how they had influenced their lives.

Possible connections

Personal heroes, career options, career planning, collage tour, Muslim contributions to Math and Science, Astronomy.

Other connections to literature in a Muslim context: students could also read parts or a translation of *The Conference of the Birds*, a very famous book of allegorical poems written in 12th century Persia by the poet Mantiq at-Tayr. Through the story of a group of 30 birds, the poems deal with the theme of the personal journey towards enlightenment.

How successful was the collaboration with other teachers within my subject group and from other subject groups?

At CFI we have a small teaching staff. We have one teacher per subject group. We often plan and brainstorm together and, therefore, many of our units are multi-disciplinary.

What interdisciplinary understandings were or could be forged through collaboration with other subjects?

The students gained from the strong connections forged between humanities, language A and art. This could be developed as an interdisciplinary unit involving those subjects but would need more consultation with the respective teachers.

Assessment

Were students able to demonstrate their learning?

The students' writing and artwork demonstrate a high level of understanding. The students were very engaged and actively participated in all parts of the design cycle.

How did the assessment tasks allow students to demonstrate the learning objectives identified for this unit?

How did I make sure students were invited to achieve at all levels of the criteria descriptors?

In their summative essays, students demonstrated a considerable growth in knowledge and understanding of Muslim art forms and cultures, as compared to the pre-assessment writing. Students wrote about many different aspects of Muslim culture that we discussed in class. Students also used specific vocabulary to describe both art and culture. The students' art reflects an overall understanding and enthusiasm for the project. In the student essays all said that making the life map was fun and insightful, and that they learned about their peers and felt we had a stronger learning community because of the unit.

I observed a high level of peer support during studio sessions. I observed students giving each other feedback about the composition, and students evaluating and applying the feedback.

Are we prepared for the next stage?

The next visual art unit explores four Modern Art movements and how these movements relied upon the relationship between literary critics, art dealers, artists, patrons, scientists and philosophers. I feel this unit prepares the students by building their awareness of how an artist can be inspired by literature. Additionally, students gained an appreciation of how one can examine a concept from multiple perspectives.

Data collection: How did we decide on the data to collect? Was it useful?

I collected planning sheets, presentation notes and critique records. I was able to evaluate the students' understanding of topics discussed in class and offer feedback that later supported the creation of their maps. The Language A teacher used several of the planning sheets when developing the students' personal hero essays.

Example 2: The sum of the parts—curiosity of the ancients still shapes how we understand the world today

Sciences

MYP year: 4

Rationale

The school

Qatar Academy is a private, non-profit, selective educational institution in Doha, Qatar. The school has its own international curriculum based on standards and benchmarks that support the PYP, MYP and Diploma Programme. Around 60% of our students are from the Middle East while the other 40% come from other countries. Faculty members are from various countries around the world.

Context of the unit in the curriculum

The unit is called “The Sum of the Parts”. It is the first unit of the grade 9 course (MYP 4) and aims to lay the foundation of chemistry concepts needed for the rest of the integrated science units that make up the science course at Qatar Academy. It is followed by a unit called “Making and Breaking”, which looks at natural and synthetic polymers and the chemical processes that take place during digestion. “The Sum of the Parts” is a chemistry unit that looks at how elements combine to form compounds. The main focus of study in this unit is the compounds found in crude oil. Crude oil is a mixture of various compounds and the techniques for separating crude oil compounds—simple and fractional distillation—are explained to students. Such techniques were used as far back as the 8th century and were perfected by the Arab scientist Jabir Ibn Haiyan. The global impact of using crude oil, a non-renewable energy resource, in generating electricity was explored, as well as renewable alternatives.

Developing the unit

The current unit was developed in collaboration with the grade 9 teachers at Qatar Academy. The science department at Qatar Academy firmly believes in making science a hands-on, minds-on subject that helps to fuel the natural curiosity of students. Science teachers are encouraged to use historic examples of scientists in their lessons as it engenders respect for other cultures. The grade 9 teachers researched extensively before settling on Jabir Ibn Haiyan, whose work has made significant contributions to modern-day chemistry.

Suggestions and feedback by participants in the project were highly appreciated as it helped in improving the unit planner to a great extent.

Muslim context

As the area of interaction is human ingenuity, the work of Jabir Ibn Haiyan fits naturally into this unit as many of his chemical techniques are still in use today. We therefore decided to allow students to research the work of Ibn Haiyan and to choose one of his chemical techniques to be presented as a “One World” poster assessment.

As the unit explores current techniques for separating compounds from crude oil, it ties in well with the work of the 8th century Muslim scientist Jabir Ibn Haiyan, who perfected many chemical techniques, including distillation. This unit offers an interesting way to acknowledge the importance of Muslim scholars to science and society. Jabir Ibn Haiyan invented and perfected several chemical techniques that are still being used globally in this day and age. Fractional distillation of crude oil, manufacturing of perfumes and steel making are a few such examples.

By considering the work of other scientists, there is the possibility of extending the exploration of Muslim contexts to other subjects. For example, Ibn al-Haytham was an Iraqi-born mathematician and astronomer living in the 10th century “who made significant contributions to the principles of optics and the use of scientific experiments.”¹ This scientist’s discoveries could be looked at in the context of physics, for example.

Global transferability of the unit

Jabir Ibn Haiyan’s contributions span all areas of chemistry and can be used in almost any chemistry unit. By using him as an exemplar scientist, students’ curiosity might be aroused and they may consider finding out about other scientists who have made such a significant contribution.

Sometimes finding resources can be a challenge; however, it is possible to find resources that include non-Western perspectives. For example, resources such as the website www.actionbioscience.org can provide examples from other cultures and periods that can contribute to students’ understanding of the developments of scientists, male and female, from various cultures.

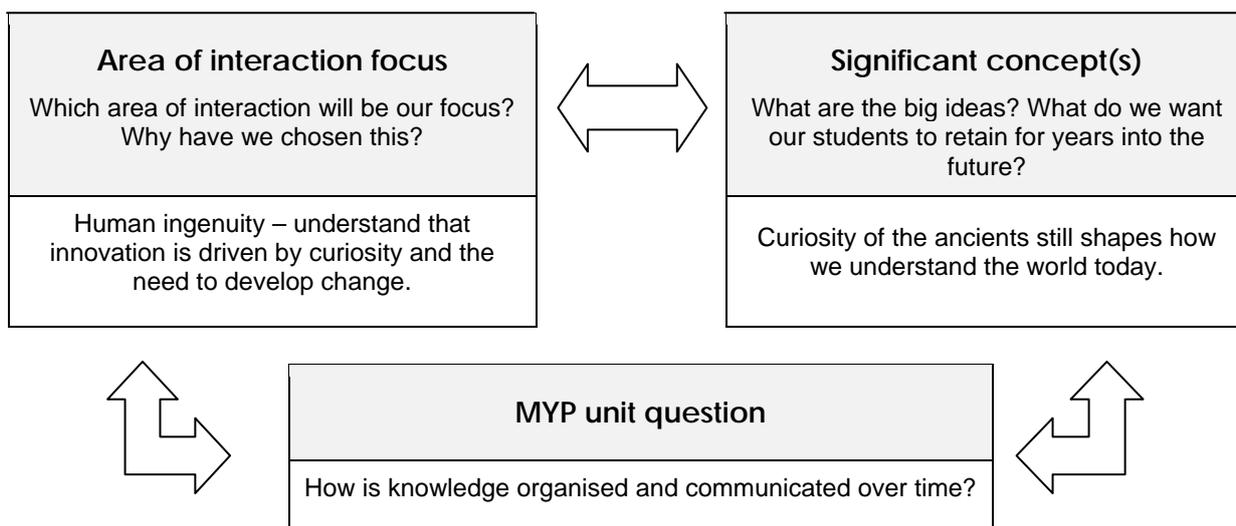
¹ Ibn al-Haytham,. *Encyclopædia Britannica Online*,<http://www.britannica.com/EBchecked/topic/738111/Ibn-al-Haytham>. Accessed 10 November 2009

MYP unit planner

Adapted from planner provided by, and in collaboration with, Qatar Academy.

Unit title	The Sum of the Parts
Teacher(s)	Science team – Qatar Academy
Subject and grade level	Science, Grade 9 (MYP 4)
Time frame and duration	6 weeks

Stage 1: Integrate significant concept, area of interaction and unit question



Assessment

What task(s) will allow students the opportunity to respond to the unit question?

What will constitute acceptable evidence of understanding? How will students show what they have understood?

Students investigate how a global issue is solved by using a specific chemical technique that was originally developed by Jabir Ibn Haiyan and express their opinions, supported by scientific knowledge and reasoning. Students communicate their findings and opinions by creating and presenting a poster, including a bibliography of supporting resources.

Students design an investigation to find out the energy content of the alcohol series and communicate their findings via a lab report

Students are tested on the knowledge and applications of this unit (end of topic test).

Which specific MYP objectives will be addressed during this unit?

Objectives A and B: (One world and Communication – Contributions of Jabir Ibn Haiyan to Chemistry purification e.g. separation processes, how we use such a process to solve a current global issue and its impact – poster)

Objective C: (End of Topic Test)

Objectives D, E and F: (Design and implement lab – compare energy content of different fuels)

Which MYP assessment criteria will be used?

A, B, C, D, E and F

Stage 2: Backward planning: from the assessment to the learning activities through inquiry

Content

What knowledge and/or skills (from the course overview) are going to be used to enable the student to respond to the unit question?

What (if any) state, provincial, district, or local standards/skills are to be addressed? How can they be unpacked to develop the significant concept(s) for stage 1?

ATOMS AND MOLECULES

- Identify the three fundamental particles, protons, neutrons and electrons, and their relative charges and masses; appreciate that electrons move around the nucleus; know how to represent an atom (${}^{\text{a}}\text{X}_{\text{z}}$ notation, shells model)
- Understand and be able to define proton number and nucleon number; know that the former identifies an element and locates its position in the Periodic Table
- Understand that atoms bond owing to the interaction of their outer electrons

IONIC AND COVALENT BONDING

- Appreciate that compounds can be classified into two broad types, ionic and covalent
- Understand how atoms from Groups I, II, VI and VII form ionic compounds
- Understand how the sharing of outer electrons can give rise to small and large covalently bonded molecules

CRUDE OIL

- Understand why fossil fuels are a non-renewable energy resource and the current need to look for renewable energy resources
- Appreciate that hydrocarbon fuels are derived from crude oil (petroleum) and that crude oil (petroleum) is a mixture of hydrocarbons
- Understand the processes of simple and fractional distillation

MUSLIM HERITAGE AND MODERN DAY CHEMISTRY

- Understand the nature and purpose of science
- Understand that innovation is the result of human curiosity and exists in every culture
- Understand the contribution of the 8th century Muslim alchemist Jabir Ibn Haiyan to current chemical techniques

Approaches to learning

How will this unit contribute to the overall development of subject-specific and general approaches to learning skills?

- Knowledge acquisition skills (extra reading and research to complete homework tasks; research on Jabir Ibn Haiyan and the impact of one of his chemical techniques in modern-day application of chemistry; research for writing a detailed lab report on energy in fuels)
- Collaboration (work with a lab partner, recognise the contribution of others)
- Responsibility (work safely during practical sessions)
- Integrity (acknowledge resources used for poster and lab report task)
- Information-processing and organisational skills (collect and sort information and data for fuels lab, keep to deadlines for One World Poster and Lab Report)
- Scientific inquiry skills (design and implement the fuels lab)
- Analysing skills (recognise and explain patterns in data collected for lab report; critically evaluate the relationship between an ancient and modern chemical technique)
- Communication skills (explain ideas and concepts via class work and homework tasks)
- Reflection (reflect on their understanding of the scientific processes and concepts upon completion of poster, lab report and test)
- Evaluating skills (draw conclusions and evaluate the poster experience; draw conclusions from fuel lab data and judge the value of data collected; suggest future improvements/experiments)

Learning experiences

How will students know what is expected of them? Will they see examples, rubrics, templates?

How will students acquire the knowledge and practise the skills required? How will they practise applying these?

Do the students have enough prior knowledge? How will we know?

Teaching strategies

How will we use formative assessment to give students feedback during the unit?

What different teaching methodologies will we employ?

How are we differentiating teaching and learning for all? How have we made provision for those learning in a language other than their mother tongue? How have we considered those with special educational needs?

Principal student engagements during the unit:

- Class discussions to elicit prior knowledge of atomic structure.
- Class discussion on how atoms are organised in the periodic table; identify the group an atom belongs to if its atomic number is known. Text book and worksheets used to consolidate learning.
- Work out arrangement of electrons for the first twenty elements of the Periodic Table. Connect the pattern seen in diagrams to the periodic table.

The AOI of 'Human Ingenuity' can be made explicit in several lessons in this unit e.g.: when discussing the atomic model, types of bonding, using crude oil and ancient/current scientists' inventions.

Class work and homework assignments to be marked by teacher, student or whole class, to give timely feedback.

Make special accommodation, such as time dispensation, for students with learning difficulties

- Outline historical aspects in the development of our current understanding of the atomic model. Develop the idea that the current model may change over time.

<ul style="list-style-type: none"> • Draw Lewis diagrams to show electron configurations in ions and work out the formula of ionic compounds and think about challenges in using such models. • Draw Lewis diagrams to show sharing of electrons in simple covalent molecules like O₂, Cl₂, HCl, CH₄ and think about challenges in using such models. • Simulations on ionic and covalent bonding. • Explain findings of qualitative observation activity of ionic and covalent compounds. • Use MolyMods™ to explore the nature of hydrocarbon molecules, allow student-generated solutions to help in understanding giant covalent structures • Use MolyMods™ to create hydrocarbon molecules, group discussion on student understanding of hydrocarbons and how the general formulas of alkanes and alkenes were deduced. Students explore whether small molecules can be created from large hydrocarbon chains. • Independent research on how fossil fuels are formed, why we use them, the consequences of using them, solutions to protect these resources. • Lab activity on simple distillation of ink and water. Extend the principles to fractional distillation. Class discussion on when the process was first invented and for what purpose. • Outline the products and uses of the different fractions of crude oil. Outline combustion reactions of alkanes. Class discussion on consequences of using alkanes for fuels and whether other alternatives should be invented and why. • Group discussion on the 'Nature of Science', how it is intrinsic to human curiosity and how it allows us to connect the past with the present. • Conduct research on the impact of a current chemical technique originally developed by the 8th century Muslim scientist Jabir Ibn Haiyan. Celebrate his contribution by sharing his invention/technique with other members of class. 	<ul style="list-style-type: none"> • MYP criteria/rubrics to be presented and explained to students on setting of Poster and Fuel Lab task • Provide feedback of assessed lab report • One World poster to be assessed and feedback provided
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Resources

What resources are available to us?

How will our classroom environment, local environment and/or the community be used to facilitate students' experiences during the unit?

- Online animation of Rutherford's experiment showing structure of atom
- ExploreLearning Gizmo "Element Building", "Ionic Bonds" and "Covalent Bonds"
<http://www.explorelearning.com>
- Muslim Heritage <http://www.muslimheritage.com/>
- *1001 Inventions Muslim Heritage in Our World*, 2nd Edition, ISBN: 9780955242618 Editor: Al Hassani, Salim (2006)
- Science and Mathematics in Medieval Islamic Cultures
http://www.sfusd.k12.ca.us/schwww/sch618/ScienceMath/Science_and_Math.html
- *Chemistry for You* by Lawrie Ryan; Publisher: Nelson Thornes; Revised edition (10 Sep 2001) ISBN-10: 0748762345 ISBN-13: 978-0748762347

Ongoing reflections and evaluation

In keeping an ongoing record, consider the following questions. There are further stimulus questions at the end of the "Planning for teaching and learning" section of *MYP: From principles into practice*.

Students and teachers

What did we find compelling? Were our disciplinary knowledge/skills challenged in any way?

What inquiries arose during the learning? What, if any, extension activities arose?

How did we reflect—both on the unit and on our own learning?

Which attributes of the learner profile were encouraged through this unit? What opportunities were there for student-initiated action?

Possible connections

How successful was the collaboration with other teachers within my subject group and from other subject groups?

What interdisciplinary understandings were or could be forged through collaboration with other subjects?

Assessment

Were students able to demonstrate their learning?

How did the assessment tasks allow students to demonstrate the learning objectives identified for this unit?
How did I make sure students were invited to achieve at all levels of the criteria descriptors?

Are we prepared for the next stage?

Data collection

How did we decide on the data to collect? Was it useful?

What worked well in the delivery of the unit?

The unit worked well because models, experiments and thinking skills were used to consolidate learning. Examples of Greek, Muslim and Western scientists were used when discussing the historical advancement of our understanding of materials. Students found this approach stimulating as it made them aware that science is a cooperative venture and that the work of other cultures should be valued and celebrated.

Students were amazed at the contributions of the Muslim scientist that they were asked to research. The research culminated in a poster assessment for Criteria A and B. Students were genuinely engaged and interested during their research session and enjoyed creating their One World poster. The AOI of Human Ingenuity was discussed within the context of solving the global issue of obtaining useful products from crude oil. This helped in their understanding of what was expected from the poster task.

Interestingly, for the poster task, students came up with current applications of various other techniques developed by Jabir Ibn Haiyan (e.g. crystallization, discovery and applications of HCl, H₂SO₄ and Aqua Regia, making steel, making manganese dioxide). This proved a great opportunity for students to share and teach applications of chemistry to other students. Teachers also realised that they could learn something new from their students.

What was challenging in the delivery of the unit?

The fact that Qatar Academy started its new academic year on the 4th Oct 09 due to Swine Flu outbreak meant that some of the concepts needed for the understanding of Crude Oil formation and its fractions were fast-tracked. This proved stressful for the students.

What changes would be made to the unit in retrospect?

In future, I would like students to carry out an investigation into separation techniques before researching about Jabir Ibn Haiyan as it would make students understand the problem-solving process and the need for creating a viable solution to a global issue.

What was successful or challenging in the process of developing the unit?

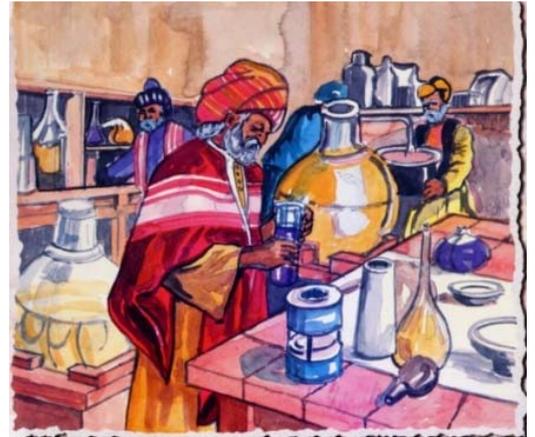
It was challenging to create a link between how elements form compounds and the rationale behind our focus on a specific group of compounds in crude oil. However, students understand that crude oil is the choice energy resource in most countries and that it is a non-renewable resource. This approach allowed us to justify the study of this specific group of compounds.

The grade 9 teachers had to think really hard about how to incorporate the contribution of Muslim culture into a chemistry unit, After searching for a natural link on this aspect, Jabir Ibn Haiyan was chosen as the scientist for detailed study.

JABIR IBN HAIYAN

ONE WORLD ASSIGNMENT - Grade 9

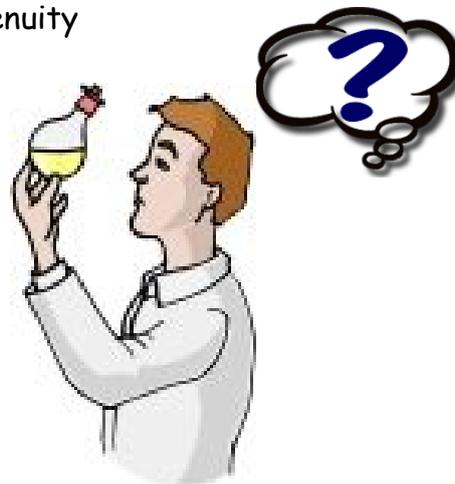
In class we have studied about distillation and fractional distillation. Such techniques were used as far back as the 8th Century by Jabir Ibn Haiyan (700-800 AD), who is known as the father of modern chemistry.



- You will be given 1 piece of A3 paper. Your job is to make a poster to outline the work of Jabir Ibn Haiyan and explain how one of his chemical techniques is currently used to solve a global issue.
- You will also need to show some of the benefits and limitations of this chemical technique, and how the current application of this technique interacts with society, economics, politics and environment.
- You should include diagrams to help explain your ideas.
- Your poster should be:

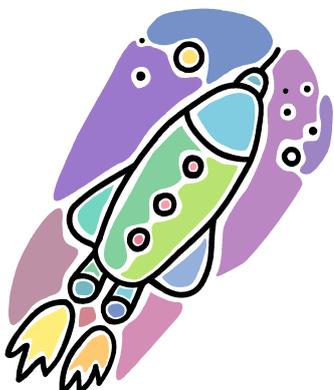
eye-catching - interesting - entertaining

AREA OF INTERACTION: Human Ingenuity



GRADE 9 MYP CRITERIA

Level	A One World	B Communication
1-2	<p>You describe how science is applied to a local or global issue.</p>  <p>You state some of the benefits or limitations of science in addressing the issue.</p>	<p>You try to communicate scientific information using some scientific language. You make mistakes in the format of your information.</p> <p>You acknowledged sources of information, but with mistakes.</p>
3-4	<p>You describe how science is applied to address a specific local or global issue. You describe some benefits or limitations of science in addressing the issue. You describe how science and its applications interact with at least one of the following factors: social, economic, political, environmental, cultural or ethical.</p>	<p>You communicate scientific information using scientific language. Most of your information is presented in an appropriate way. You acknowledge your sources of information, but with mistakes. You have used in-text referencing.</p>
5-6	<p>You explain how science is applied to address a specific local or global issue. You describe and explain some of the benefits and limitations of science in solving the issue. You describe and explain how science and its applications interact with some of the following factors: social, economic, political, environmental, cultural and ethical.</p>	<p>You communicate scientific information correctly and accurately. You present all the information in an appropriate way. You use a variety of sources and you reference these accurately. You use in-text referencing and a properly formatted bibliography.</p> 



Experiment to Investigate Fuels

Criteria Assessed: B,D,E,F

AOI Link: - **Human Ingenuity** - the development of new ideas and understandings, and creativity in designing new technologies which make use of different types of fuels
 You are provided with a number of different fuels which have been extracted from oil. The fuels vary in their chain length.

Task: Compare the energy output of the fuels and relate this to their physical properties.

Level	B Communication	D Scientific Enquiry	E Processing Data
5-6	<p>You communicate scientific information correctly and accurately.</p> <p>You present all the information in an appropriate way.</p> <p>You use a variety of sources and you reference these accurately.</p> <p>You use in-text referencing.</p>	<p>You define the purpose of the investigation</p> <p>You can write a testable hypothesis, with a scientific explanation.</p> <p>You can identify the variables and describe how to manipulate them.</p> <p>You can evaluate your experiment and comment on its reliability and validity.</p> <p>You suggest meaningful improvements.</p> <p>You suggest how the investigation can be extended.</p>	<p>You collect and record data using appropriate forms of measurement.</p> <p>You can independently organize and transform your data appropriately.</p> <p>You can present data in a variety of ways</p> <p>You can analyse and interpret data.</p> <p>You draw conclusions that are supported by scientific explanations and reasoned interpretation of your data.</p>

What I need to do to improve my level: -



Example 3: State of the nation—defining boundaries in geography, culture and community

Interdisciplinary (humanities and arts)

MYP year: 5

Rationale

The school

J.E.B. Stuart High School serves approximately 1,400 students in suburban Fairfax County, Virginia, just outside Washington, DC. The 13th largest US public school system, Fairfax has implemented IB programmes in 20 schools. Students at J.E.B Stuart complete years 4 and 5 of the MYP, in partnership with nearby Glasgow Middle School. At Stuart, IB programmes are open to all students in a diverse community comprising many ethnicities, languages and nationalities. The majority of students are economically disadvantaged, and a significant minority have limited proficiency in English.

Context of the unit in the curriculum

This unit was developed for use with honours students who are expected to continue on to the IB Diploma Programme.

The study of modern world history in most American high schools includes some discussion of 19th century developments in European political philosophy, often focusing on the unification of Italy and Germany as hallmarks in the emergence of the contemporary nation state. Emerging patterns of nationalism and state-building in Europe are seen as the backdrop against which the Ottoman and Austro–Hungarian empires set the stage for the two world wars (1914–1918, 1939–1945) and the Cold War that followed.

The standard narrative treats Germany (Bismarck) and Italy (Garibaldi), often in relation to the constitutional democracies of France and the United States, as members of a global system progressing through time. The world's peoples are seen as having organized themselves in phases by tribe, then city–state and regional leagues, through a long era of clashing kingdoms and empires, ending with our current dynamic system of modern nation states.

Developing the unit and Muslim context

This unit is enriched by careful attention to non-Western contexts, especially the political institutions created in traditionally Muslim cultures. It uses the teaching process to build further background knowledge of Muslim cultures, offering an exemplar of the summative assessment task that features the diverse peoples whose lands touch the Indian Ocean. By exploring the case study of an imaginary new nation state (“the Islamic Republic of Baharia”), students build cultural competency as they learn about the art, music, trade, faith, geography and political institutions of that region. The example invites reflection and discussion on what it means to be a nation, on the consequences of colonialism, and on the adaptability of economic and religious systems in a global context. (See teaching note 1 following the unit.) My art colleague was instrumental in helping to find images to support humanities content knowledge, developing the arts criterion A rubric, and collaborating on the visual components of the assessment task and exemplar.

We developed the unit in light of MYP fundamental concepts.

- *Intercultural awareness*: helping older students begin to make sense of the modern world's geopolitical systems. By inviting year 5 students to consider not only the historical development of the nation state in Europe, but also parallels in Africa, the Middle East, and South Asia, this study opens the door to powerful discussions about similarities and differences—a high yield instructional strategy and a key approach to learning.

- *Holistic*: posing a clearly-framed problem that students address by bringing together a variety of perspectives through interdisciplinary instruction and assessment.
- *Communication*: offering students many opportunities to strengthen their capacity to share information and ideas. Using world languages, art, maps, and persuasive writing, students create performance of understanding.

Global transferability of the unit

While this unit is presented in the context of an upper school course in world history, with specific content framed by generally accepted US state and national learning standards, teachers can adapt the time frame, instructional strategies and essential content to meet local curriculum guidelines. Also, the specific information used to fill out the unit's inquiry and its significant concept might well be developed in other humanities courses and at other developmental levels. Courses in human and natural geography, cultural studies, civics/government, and integrated humanities can all fruitfully explore the problem of political organization and its cultural determinants and consequences.

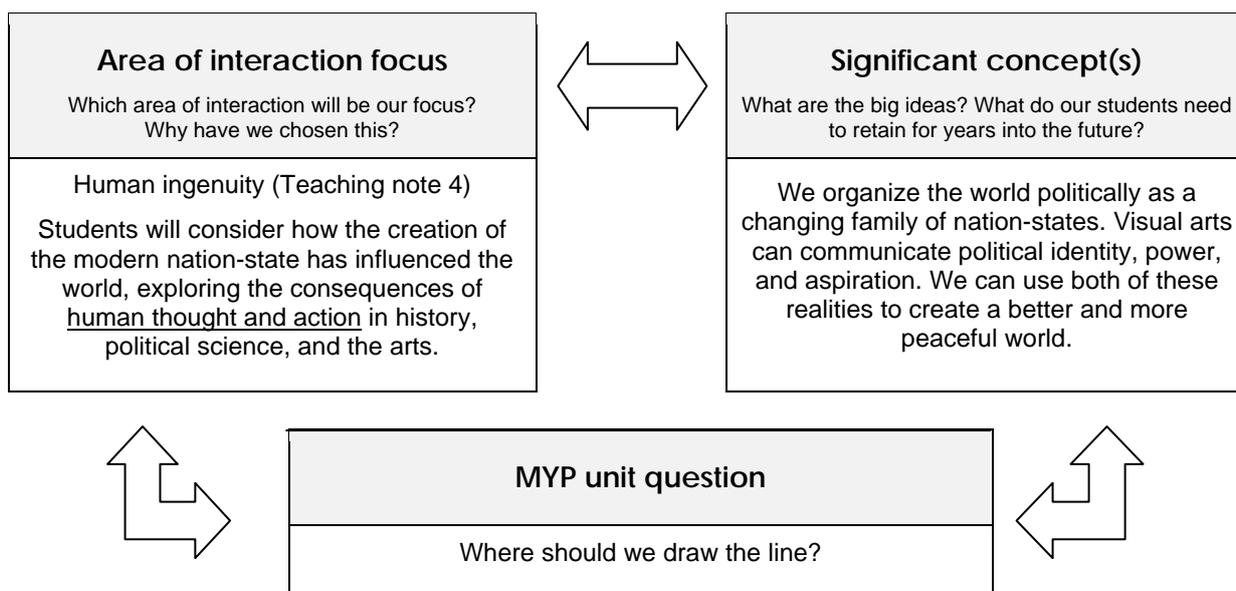
Traditional studies rarely consider non-European contexts or the conflicts that can arise between secular democratic political units and alternative cultural and political systems. Particularly acute is the gap between what most Western history courses teach about the rise of nationalism and what students know about the history of nation states that encompass Muslim cultures. The interplay of nation states, non-state actors, and supranational institutions frames the history of the 21st century, and traditionally Muslim nations are at the heart of key international issues from the Middle East to central and south-eastern Asia, to Europe and North America.

MYP unit planner

Adapted from planner provided by, and in collaboration with, J.E.B. Stuart High School.

Unit Title	State of the Nation
School	J.E.B. Stuart High School – History and Art Departments
Subject and Grade Level	Humanities (MYP 5) Visual Art (MYP 5) – interdisciplinary unit (Teaching note 2)
Time frame and Duration	2–3 weeks (5–8 x 90 minute classes) (Teaching note 3)

Stage 1: Integrate significant concept, area of interaction and unit question



Assessment

Students will develop the case for the creation of a new nation-state and create a patriotic visual image (or musical text/composition, or dance, or short film) to portray and elicit its citizens' allegiance. In the case study, students will draw on historical examples and conceptual understanding to decide (and justify their decisions about) where the state should be created, how its national community(ies) will be defined, and what its stance will be toward both the surrounding region and the larger international community.

Which specific MYP objectives will be addressed during this unit?

Humanities: *Concepts* – systems in national and global societies/cooperation within and between systems; global awareness – issues facing the international community

Arts: Knowledge and understanding – knowledge of the art form in relation to societal, cultural and historical contexts

Which MYP assessment criteria will be used?

Humanities Criterion B/Arts Criterion A

Stage 2: Backward planning: from the assessment to the learning activities through inquiry

Content

National World History Standards – (Era 7.4) Describe patterns of nationalism in 19th and 20th century Europe; (Long-term Change and Recurring Patterns 7) Analyze the development of the nation-state.

<http://nchs.ucla.edu/standards/world-standards5-12.html>

National Art Standards – (4) Understand the visual arts in relation to history and cultures [Students analyze relationships of works of art to one another in terms of history, aesthetics, and culture, justifying conclusions made in the analysis and using such conclusions to inform their own art making]; **(6) Make connections between visual arts and other disciplines** [Students compare characteristics of visual arts within a particular historical period or style with ideas, issues, or themes in the humanities or sciences]

<http://artsedge.kennedy-center.org/teach/standards.cfm>

Specific content knowledge

- European perspectives
 - Treaty of Westphalia
 - French Revolution
 - Revolutions of 1848
 - Bismarck and Garibaldi
- Euro-Asian perspectives (Russo-Japanese War; the Salt March)
- Muslim perspectives (pan-Arabism; Atatürk, Jinnah, Nasser, Kenyatta); *Shari'ah* and *ummah* (including the inherent tensions between theological principles and political practice)
- Nation/state/dynasty/tribal agglomeration/empire
- Parochialism, patriotism, nationalism, cohesion, homogeneity, cosmopolitanism, internationalism
- Right of self-determination; sovereignty; triumphalism
- Problem of the minority
- Repatriation (art)
- Symbolisation/personification
- Verdi, Elgar, Delacroix, Tagore

Content questions/inquiry into (inter)national systems

- Should every ethno-nation be a state?
- Are there any practical alternatives to nationhood?
- What is the role of pan-national organizations?
- What actions are appropriate in securing sovereignty?
- How should nation-states balance diversity and homogeneity?
- In the nation-state, how do artists balance creative freedom with a responsibility to preserving culture?
- What is the political role of art?

Approaches to learning

How will this unit contribute to the overall development of subject-specific and general approaches to learning skills?

Humanities – Analytical skills (identify key problems and issues); decision-making skills (draw conclusions including implications); investigative skills (carry out and present group investigations)

Arts – What skills and knowledge can I take from other subjects and use in my art or my learning in art?

General – Collaboration (roles/responsibilities, teamwork); thinking (inquiring, applying, creating novel solutions); information literacy

Learning experiences

Analyse icons (Liberté, Mother India, Statue of Liberty, Turkish independence)

Analyse patriotic musical texts (Elgar, “Pomp and Circumstance” and Verdi, “Triumphal March” from *Aida*)

Construct classroom map of nations, nation-states and ethnicities; discuss politics/geography

Class debate (“Resolved: The development of nation-states brought prosperity and stability to the modern world”)

Art show-values search (guest lecture by art teacher, reviewing slides to identify art forms and cultural traditions; inferring artists’ values from their work)

Elgin marbles case study

Collaborative or teacher-provided research to develop “Nationalism Hall of Fame” featuring key figure biographies (including 19th/20th century Muslim leaders)

Interim synthetic assessments: people, places, dates quiz; concepts short-answer test

Teaching strategies

Establish cognitive set – examine how images and music inspire patriotic feelings

Create purpose for learning – assign task and explain rubric at the beginning of the unit; discuss exemplar

Build real-world connections – examine daily news reports for international “hot spots” in which nationalism is part of the ongoing debate

Mini-lectures on growth of nationalism in 19th century Europe, Africa, South Asia and the Middle East; comparing 20th and 21st century Muslim contexts

Use formative assessments to monitor essential vocabulary acquisition and concept attainment (quizzes and quick writes; “numbered heads together” reviews)

Develop protocol for analysing visual images

Chart learning by developing a wall-sized concept map of international systems

Promote inquiry with a question wall

Multi-level texts for a range of reading levels; peer review; tiered assignments; options for multiple intelligences (visual, musical, kinaesthetic)

Resources

World history textbook – *World History: Connections to Today* (Prentice Hall, 2007) – Chapter 10; reference works (atlas, gazetteer, etc – either print or electronic)

Art sourcebooks or internet resources – Museum Without Frontiers (<http://www.discoverislamicart.org/exhibitions/ISL/>)

Recordings of nationalistic songs and examples of nationalistic visual images

Current news sources (print or electronic) – www.bbc.co.uk; www.nytimes.com; www.english.aljazeera.net

Portraits and essential biographies of key figures (ABC-Clio; Discovery Learning)

Exemplar created by teacher – Nation-State of The Islamic Federal Republic of Baharia

Stage 3: Ongoing reflections and evaluation

Possible connections

1. There are additional connections to develop between nationalism (and challenges to nationalism) with language A.
2. Additional humanities and arts objectives could be assessed with this performance task. If time permits, it could easily support humanities criterion D (organization and presentation) and arts criterion B (performance).

Praise and polish

1. What worked well: The unit was very engaging for students because it provided a real-world and contemporary context for the study of emergent European nationalism. Students strengthened their understanding of geography and world events as they developed a map that identified current nationalistic conflicts around the globe. Classes enjoyed lectures with music and art and responded well to creative aspects of the summative assessment task. Students began to make important connections between political systems and current international conflicts.
2. Challenges: The unit challenged teachers and students because of the severe time constraints imposed by a very broad state curriculum. The unit's content went well beyond required knowledge for the course. In order to build background understanding of traditional Muslim states, additional time and energy inside and outside of class were required. Learning about so many new things at once placed students under an extensive cognitive load.

Exploring European nationalism as an exercise in comparative history opened many interesting points of comparison. Encountering Indian Ocean civilizations significantly broadened its scope and impact. Finding concise and developmentally appropriate resources to support students' inquiry—always a challenge—is particularly difficult for modern, predominantly Muslim nation-states.

3. When teaching this again: To support a more differentiated classroom, in future teachers will need to develop a range of resources to scaffold students' inquiry into world conflicts surrounding the development of nation states. When possible, organizing the curriculum more topically would relieve tensions between developing a primarily European narrative and exploring larger issues of political organization. The core exploration of nation-state building would be easier following a basic introduction to post-Ottoman history in Egypt, Turkey, Iraq, and Iran. The unit might be re-developed as a culminating experience that ties modern world history to current global conflicts.

In more advanced classes, students may be ready to engage in more formal discussions about the historiography surrounding the concept of the nation-state.

4. Some of the ideas and resources that helped with developing this unit could be further explored:
 - Nationalistic processes at play in formation of states emerging from the Sultanate of the Ottoman Empire (for an overview, see <http://www.pbs.org/wgbh/globalconnections/mideast/questions/nations/index.html>)
 - Unification – Arab nationalism (pan-Arabism)
 - 1960s, socialist, secular (not Islamist – some leaders were not Muslims)
 - Cultural, focused on north Africa and the Middle East, opposed to colonialism
 - Sharif Hussein ibn Ali (1915)/Gamal Abdul Nasser (1960s)
 - In more extreme versions, early Muslim Brotherhood (al-ikwan)/Sayyid Qutb's philosophy
 - Saudi Arabia – Abd al-Aziz ibn Saud's unification of Arabian peninsula tribes

Separation – formation of Egypt

- Ahmad Lutfi al-Sayyid, moderate educator and journalist of the Ummah party; Mustafa Kamil – Egyptian nationalist party

- 2006 Muslim Brotherhood Egyptian National Charter (<http://www.thedailynewsegypt.com/article.aspx?ArticleID=1780>)
- Contemporary processes among Kurds in Iraq and Turks in Central Asia

State-building – modern Turkey

- Successor to the Ottoman Empire in the aftermath of WW1; “National Pact” 1920
- Mustafa Kamal Atatürk, 1923; Kemalism
- Political institutions and the role of education (Republican People’s Party and “People’s Houses”

Current debate:

Juan Cole, *Engaging the Muslim World* (MacMillan, 2009, esp. chapter 2) – distinguishing between Muslim activism and Muslim radicalism; “The diverse cultures and polities of the Muslim world and those of the North Atlantic have had conflicts at times and achieved mutually beneficial forms of cooperation at others. . . . doing so will require a setting aside of Islam anxiety. . . and a spirit of compromise on all sides.”

Christopher Caldwell, *Reflections on the Revolution in Europe: Immigration, Islam, and the West* (Doubleday, 2009) – arguing that post-WW2 Europe’s political tradition has focused on purging nationalism (understood as the basis for “racism, militarism, and cultural chauvinism—but also patriotism and pride”), leading to the development of the EU; these understandings of history are often not shared by immigrant communities, leading to a sharp clash in values, confused thinking about the meaning of multiculturalism/diversity, a new kind of Islamic tribalism, and a fear of political Islam.

Khaled M. Abou El Fadl, *The Great Theft: Wrestling Islam from the Extremists* (HarperOne, 2007, esp. chapter 2) – suggesting that the loss of traditional Muslim institutions of religious authority (largely a consequence of colonialism and the rise of the modern secular nation-state) has allowed Islamic puritans to usurp shariah as a source of ideological legitimacy; these mass movements, arising in a vacuum of religious authority, became the focus of “resistance to Western hegemony as well as a means of voicing nationalist aspirations for political, social, and cultural independence throughout the Muslim world.”

Teaching Notes:

1. To increase appreciation of Muslim cultures, other units can provide key points of contact in traditional courses of study for U.S. and world history, as well as civics and comparative government:
 - the perspectives of traditionally Muslim countries are often unexplored when considering the role of religion in the political process, the nature of civil society, colonialism and its aftermath, the Cold War and the impact of socialism, and the effects of World War I;
 - course can explore general humanities concepts like public opinion, cultural identity and diffusion, and environmental influences on society by considering test cases from countries with significant or majority Muslim populations;
 - teachers can challenge preconceptions by posing alternative analogies with Muslim contexts to help students understand events in contemporary Western societies. For example, the clash of cultures in the American civil rights movement might be a better way to understand contemporary conflicts in Muslim societies than the easy substitution of the global war against (Muslim) terrorism for the threat of communist expansionism that fuelled the Cold War;
 - in the course of exploring U.S. history and society, teachers can highlight often unseen connections with a rich diversity of Muslim cultures including African-American musical traditions, 19th century transcendentalism, and contemporary art, fashion, and culture.

2. This unit is interdisciplinary because it both pursues learning objectives in two MYP subject areas (arts and humanities) and develops new integrated understandings that emerge from the collaboration. Politics and artistic expression are often intertwined, and students enrich their understanding of both disciplines by treating them in an integrated study. A single focus area of interaction forms a conceptual context for teaching and learning. Human ingenuity frames students' inquiry into some of the key issues and consequences that underlie the development of the idea of the nation-state. For art, the unit's emphasis is not so much on the application of artistic technique as it is on the way we think, create, and transform ideas. The integration of the arts into the unit is by the humanities teacher with collaboration from the arts teacher.
3. The length of the unit can be extended and has a range of content from which teachers can choose to craft a learning experience that meets local requirements.
4. Other areas of interaction might be developed to provide alternative or additional insights. Community and service offers the opportunity to explore the "complexities of community and its different forms"; health and social education invites the exploration of social structures and political decision making at personal and national levels; environments frames inquiry into the dynamic interaction between social values, political history, and landscapes of human and physical geography.

Assessment rubric

Arts Criterion A (Knowledge and understanding)

Achievement level	Descriptor
7–8	<p>You displayed well-developed knowledge and understanding because you...</p> <ul style="list-style-type: none"> Thoughtfully use authentic cultural traditions and art forms and explain how they could inspire national allegiance Critically combine a variety of artistic elements from the historical-social context of your new nation
5–6	<p>You displayed good knowledge and understanding because you...</p> <ul style="list-style-type: none"> Use authentic cultural traditions and art forms Use multiple artistic elements from the historical-social context of your new nation
3–4	<p>You displayed satisfactory knowledge and understanding because you...</p> <ul style="list-style-type: none"> Connect your work with some aspect of appropriate cultural traditions or art forms Use some artistic element from the historical or social context of your new nation
1–2	<p>You displayed only limited knowledge and understanding because you...</p> <ul style="list-style-type: none"> Don't connect your work with any appropriate cultural tradition or art form Only use artistic elements that lie outside the historical or social context of your new nation

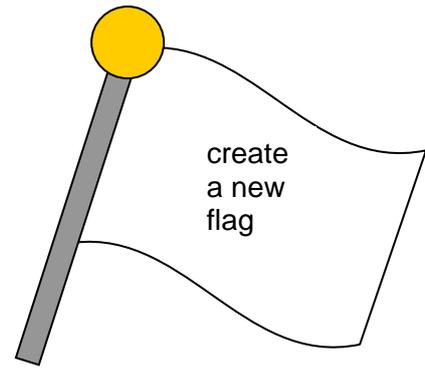
Humanities Criterion B (Concepts)

Achievement level	Descriptor
9–10	<p>You demonstrated extensive understanding of systems and global awareness when you...</p> <ul style="list-style-type: none"> explain in detail the structure of systems in local, national, and global societies consider cooperation between and within systems (inter-relationship) on multiple scales prioritize and explore in-depth key issues facing the international community discuss implications of equality, justice, and responsibility
7–8	<p>You demonstrated a well-developed understanding of systems and global awareness when you...</p> <ul style="list-style-type: none"> describe the structure of systems that exist in local, national, or global societies consider the cooperation between or within social systems (inter-relationship) develop at least one of the issues facing the international community recognize some implications for equality, justice, and responsibility
5–6	<p>You demonstrated a proficient understanding of systems and global awareness when you...</p> <ul style="list-style-type: none"> recognize some of the systems that exist in society note some of the issues facing the international community attempt to point out the relationships between various national systems
3–4	<p>You demonstrated a basic understanding of systems and global awareness when you...</p> <ul style="list-style-type: none"> observe that systems exist in national and global societies recognize relevant issues that face the international community
1–2	<p>You demonstrated a minimal understanding of systems and global awareness when you...</p> <ul style="list-style-type: none"> don't write about societies as systems fail to consider the international dimension of society

A Proposal to Establish the New Nation-State of

Language, “*Meaning*”

Geography: Explain where the new nation will be located and why. Describe what people(s) will be included and how the new political system you’re creating will deal with issues of language, ethnicity, and nationalism. Include a map that shows the new country’s extent.



map

International Dimensions: Discuss how your nation-state will fit into the world. How will its inhabitants work together as global citizens? What will be its role in the global economic system?

Issues: Explore the consequences/effects of your new country’s creation. What problems will need to be resolved? How will its governance work in the context of civil society? How will it deal with pluralism? What are the implications for culture?

Flag: Describe the new country’s flag. What is its significance? Why do its symbols “work?”

Art: Interpret the national icon you’ve developed for your new country. What art forms and traditions do you use? Why? How will your symbol inspire patriotism or allegiance?

As new employees of the United Nations, you have been charged with proposing to the Secretary General the creation of a new nation-state whose existence will make the world a better place. Use what you know about the emergence of nation-states and tensions within the idea of nationalism. Justify your decision using this template to frame your argument. Make your case by analyzing social systems and thinking from a global point of view.

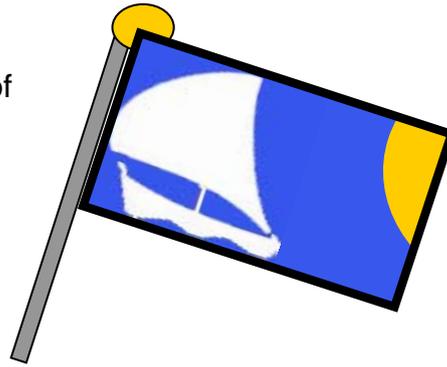
Create a new flag for your country and develop a national symbol that expresses its values and identity. For your art, draw on the traditions and forms that have meaning for the new country’s people(s).

Clearly identify the roles and responsibilities of each member of your four-person team. Each person must contribute a specific section of the proposal. Your proposal is limited to 1,200 words. It will be hard to make an effective argument with fewer than 700 words.

Teacher exemplar

A Proposal to establish the new Nation-State of
**The Islamic
Federal Republic of Baharia**

Kiswahili, “*Ocean Land*”



“Among His signs is the diversity of your languages and cultures.” (Quran 49:13)



Geography: Baharia will comprise all landforms surrounded by the Indian Ocean, as well as a zone extending 20 kilometers inward from the sea from southern Africa, across the Arabian peninsula, around the subcontinent of India, along the south-western coast of southeast Asia, ending down the coast of western Australia.

International Dimensions: The vast size of Baharia and its connections to many important natural resources will help to guarantee its prosperity in global trade. Economic systems will be supported by emerging markets in India and China, with development in education and infrastructure creating higher standards of living in coastal Africa as well. With the former Indonesia at the heart of a new global financial system, with skilled labor from India, and energy resources from the Gulf States, Baharia will be connecting point and transportation hub for a majority of the world’s population. Peoples of many heritages and races—most of them representing Muslim cultures—will support common goals, living together based on their history of tolerance and acceptance that is based on a peaceful mercantile maritime culture that reaches back for centuries.

The organization of this new state will be easier thanks to the work of the Indian Ocean Rim Association for Regional Cooperation (IOR-ARC), founded in 1997. Its core mission of creating trade relationships, as well as business and academic partnership, has laid the foundation for successful international cooperation. Member countries already include Australia, Bangladesh, India, Indonesia, Kenya, Madagascar, Malaysia, Mauritius, Oman, Singapore, South Africa, Sri Lanka, Tanzania, Thailand, United Arab Emirates, and Yemen.

Issues: Since Baharia will encompass part of many nation-states, there will be many issues regarding changes in national sovereignty. Border control will be difficult. With such a huge and potentially disconnected area that cuts across three continents, the citizens of Baharia will have to work at maintaining common interests. The nation will be an Islamic republic; but with power shared between national and state-zone levels, people of other traditions will have great determination over their own affairs. Non-Muslims will be subject to *shariah* law that is interpreted in light of the U.N.

Declaration of Human Rights and will be subject to a 2.5% tax that will support state-zone development foundations.

Flag: Baharia's flag is bright blue, recalling the *Mare liberum* Indian Ocean. A rising sun speaks to the nation's great hope for the future, and it also might be seen as a sign of wealth and a reminder that in Baharia, what matters is not the tone of your skin but the color of your gold. Sailing across the banner is the famous dhow, Baharia's ancient means of profitable trade and exciting cultural interaction. The close connection on people across diverse lands, the importance of commerce, the vast riches of the ocean, the need for constant interchange and communication—these are the ideas reflected in new nation's flag.

Art: With so many rich traditions, it is difficult to identify any single image that might inspire national allegiance among all the peoples of Baharia. So, we have reached into the past to highlight a great naval and commercial hero whose travels across the Indian Ocean were remembered for centuries: Zheng He. Zheng He, the fifteenth century Chinese admiral who explored most of what will be Baharia, is a kind of neutral figure on whom the people of the new nation can project their hopes and dreams. He was a Muslim, originally named Ma He (Chinese for Mohammed), a master of the sea, and a brilliant trader, and a keen observer of the many cultures of Africa, Europe, Asia, and Oceania

Images of Zheng He usually cast him in a heroic pose before his famous and enormous treasure ships that dwarfed the ships of Christopher Columbus.¹ He is a model for inspiring allegiance: he symbolizes adventure, wealth, power, openness to other cultures, and trade.

In our portrait, we have adopted a typical depiction and added to its meaning. The proud and confident admiral is clothed in gold embroidery and surrounded with symbols that are important for the new nation: a four-part geometric design, a green crescent and star, and an astrolabe. These symbols represent the four continents of Baharia, the wealth that comes from cooperation between them, the faith that sustains the people, and the legacy of invention and innovation that connects Baharia's past with its future.

In Islam, representational art has sometimes been suppressed, but it is not forbidden. In our image, though, the astrolabe design and the patterns of Zheng He's robes reflect the importance of geometric design in Muslim cultures.



¹ <http://www.saudiaramcoworld.com/issue/200504/the.admiral.zheng.he.htm>
<http://us.123rf.com/400wm/400/400/dip/dip0607/dip060700015/481152.jpg>
http://www.pbs.org/wgbh/nova/sultan/expl2_01.html

Stages of the project development

The project process included the following stages.

- Selecting five PYP teachers and five MYP teachers through an application and screening process based on units of work submitted to the IB.
- Participating in a field experience including immersion into a Muslim cultural context and an intense curriculum planning process.
- Modelling the collaborative planning and reflection process through all stages of unit development.
- Trialling the units in schools, gathering feedback and refining the resources.
- Developing a pilot publication to be made available to all IB World Schools, Aga Khan Academies and the Aga Khan community.

Table 1

The project timeline

Stage	Date
Call for IB teacher applicants and selection of successful applicants	November 2008
Cultural and curriculum field work in Zanzibar; development of planners and units of work	April 2009
Trialling of planners and units of work by teachers in their schools, process of collaborative review through technology	May–October 2009
Publication of article in <i>IB World</i>	October 2009
Follow-up working party to finalize planners, units of work and resource materials	November 2009
Planners and units of work and resources posted on OCC	February 2010
Invitation to teachers to provide feedback on sample planners and units of work	March–December 2010
Exploration of opportunities for professional development activities	March–December 2010

Cultures diagram

Developed by the Aga Khan Academies in collaboration with other IB educators (2007)

Cultural identities

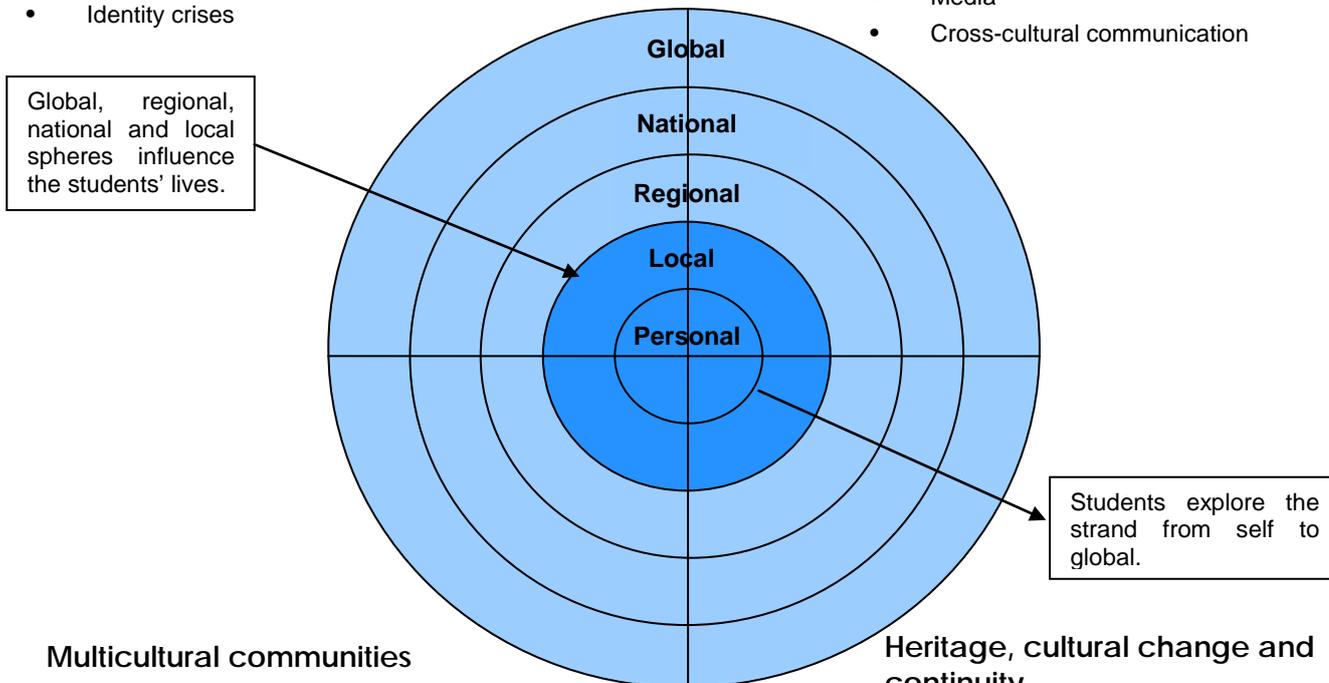
The study of how identities are acquired and expressed at individual and group levels. A critical examination of the nature and pathologies of these identities.

- Language and behaviours (dress, etiquette)
- Ways of knowing
- Values and norms (ethics, gender, race)
- World views (myths, stories)
- Traditions and symbols
- Primary, secondary, multiple identity
- Institutions and groups (family, tribe, religion, etc)
- Ethnocentrism, patriotism
- Identity crises

Cultural encounters

The study of how cultural groups interact with, and influence, each other across space and time. A critical examination of the impact of these encounters on individuals, communities and nations.

- Movement of people
- Diversity and difference
- Interchange of ideas and enculturation
- Power (colonization, cultural hegemony, in- and out-groups)
- Cultural influences and conflicts
- Stereotypes
- Evolution of language
- Media
- Cross-cultural communication



Multicultural communities

The study of what makes a society culturally diverse and of the ways in which individuals and groups respond to this diversity.

- Equity and social justice
- Citizenship (rights and responsibilities)
- Fusion and innovation
- Belonging and globalization
- Tolerance and cross-cultural relations
- New thinking and creativity

Heritage, cultural change and continuity

The study of how rich cultural heritages evolve, are interpreted and reproduced. A critical examination of the interaction of changing culture and globalization

- Cultural transmission (arts, architecture, literature, rituals, oral traditions, etc)
- Civilisation
- Cultural preservation
- Globalization
- Cultural interpretations and representations (media, education)
- Religion
- Institutions and political influences

Guiding questions to engage the learning community in a school

- Why is it important to understand culture?
- How do I define culture?
- How does culture influence behaviours?
- How do artifacts distinguish cultural groups?
- What are common characteristics of different cultures?
- How is unity developed within and among cultures?
- What is the role of diversity within a culture?
- What is the role of diversity within a school community?
- What defines the culture of our school community? Organizational community?
- How do we value cultures in our school community?
- How does our school promote international-mindedness?
- What emphasis is placed on building an inclusive curriculum in our school?
- Why should we consider varied cultures in the curriculum?
- How do we design a curriculum that meets the needs of our students?
- In what ways can we incorporate varied cultural contexts into our curriculum?
- What are the challenges of incorporating varied cultural contexts into our curriculum?
- In what ways do my units enable students to explore varied cultures and perspectives?
- What unique cultural experiences and resources do I think children will bring with them to school as a result of growing up in our community? How might I build upon these in my teaching?