Examples of differentiated lesson plans

4. Voyages of Discovery
(Think Tac Toe)
**Example 4**

<table>
<thead>
<tr>
<th>JS History</th>
<th>S2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topic</td>
<td>Voyages of Discovery</td>
</tr>
<tr>
<td>Number of Lessons</td>
<td>2 lessons (35 minutes per lesson)</td>
</tr>
</tbody>
</table>

**Learning objectives**

<table>
<thead>
<tr>
<th>Know</th>
<th>Understand</th>
<th>Do</th>
</tr>
</thead>
<tbody>
<tr>
<td>• the explorers and navigators who made voyages under government sponsorship</td>
<td>• how and why the Europeans went to the East by sea in the 15th century</td>
<td>• find out the causes of voyages of discovery.</td>
</tr>
<tr>
<td>• the new sea routes to the East</td>
<td>• the effects of voyages of discovery</td>
<td>• locate the sea routes of navigators in the 14th and 15th century</td>
</tr>
</tbody>
</table>

**Tools for differentiation / Instructional strategies**

<table>
<thead>
<tr>
<th>Tools for differentiation</th>
<th>Instructional strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Form A and B (Appendix 1)</td>
<td>• Think Tac Toe (Appendix 3)</td>
</tr>
<tr>
<td>• Equalizer (Appendix 2)</td>
<td>It is mainly interest-based differentiation which offers choices of learning tasks for students. The three options in each row have the same set of learning objectives. *You may view chapter 4 in the animated video for reference.</td>
</tr>
</tbody>
</table>

**Learning and Teaching Materials**

<table>
<thead>
<tr>
<th>Video clips</th>
<th>Activity tool</th>
<th>Worksheets</th>
<th>Students’ work</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Christopher Columbus (5:29) <a href="https://www.youtube.com/watch?v=kuvRFZ4Mxbo">https://www.youtube.com/watch?v=kuvRFZ4Mxbo</a></td>
<td>• World map</td>
<td>• 9 tasks in Think Tac Toe to cater for students’ interest, readiness and learning profile. (Appendix 4)</td>
<td>Mapping Sea Routes, A Song of Navigators and Letter to the King of Spain (Appendix 5)</td>
</tr>
<tr>
<td>• Ferdinand Magellan (2:52) <a href="https://www.youtube.com/watch?v=pM-igYjn6E4">https://www.youtube.com/watch?v=pM-igYjn6E4</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Steps in the lesson</td>
<td>Learning and teaching activities</td>
<td>Elements / strategies of Differentiated Instruction</td>
</tr>
<tr>
<td>-------</td>
<td>------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------</td>
</tr>
</tbody>
</table>
| 5 mins| Pre-assessment                                                                     | • Ask questions to assess students’ prior knowledge:  
Q.1 What is east-west encounters?  
Q.2 What were the examples of East-west encounters before voyages of discovery?  
Q.3 What were the means of east-west encounters before voyages of discovery? | Use the results of Form A and Form B to set the topic that interests students most.  
(Appendix 1)  
Equalizer (Appendix 2)  
(From abstract to concrete) |
| 5 mins| Introduction of Think Tac Toe                                                      | • Introduce a new form of learning contract to the students – Think Tac Toe.  
• Ask them to choose their work by playing the game Think Tac Toe with their group mates in pairs.  
• After choosing their options, the students need to sign their own learning contract. | Learning Contract: Think Tac Toe (Appendix 3)  
Differentiation in products:  
The 9 cells in Think-Tac-Toe offer students alternative ways of exploring key ideas and using historical skills. |
| 10 mins| Causes of voyages of discovery                                                     | • Distribute a world map to students for matching the fruits and food to the place of origin (in terms of continents) so that they can understand the navigators’ motives of searching new land and resources (Task 3).  
• Next, discuss the long-term effects of voyages of discovery. | Learning Contract: Think Tac Toe (Appendix 4)  
(From foundational to transformational) |
| 15 mins| Introduction of navigators’ sea routes during voyages of discovery                | • Play the video “Mel-o-toons: Christopher Columbus” and ask students about the reasons, difficulties and results of the voyages of Christopher Columbus.  
• When the video is over, ask them to write a poem (Task 1), compose a song (Task 2), complete the graphic organizer (Task 6) or write a diary about navigators (Task 7) (It depends on the tasks they have chosen from the Think Tac Toe learning contract).  
• Show an interactive map about the sea routes that the four famous navigators (Diaz, Da Gama, Columbus and Magellan) discovered and ask the students to identify different oceans and continents.  
• Students may opt to make a model of the sailing ship (Task 4) or draw sea routes of navigators (Task 5). | Based on results of Form A and B, students enjoy watching video and doing creative assignments.  
Differentiation in content and process: Students learn from the song and the map about the navigators.  
Refer to the 9 tasks in Think Tac Toe (Appendix 4) |
### Time | Steps in the lesson | Learning and teaching activities | Elements / strategies of Differentiated Instruction
---|---|---|---
30 mins | **Difficulties encountered by various navigators** | • Assume that the government no longer sponsored the navigators and they needed to start a voyage.  
• Students draw a poster (Task 8) or write a letter (Task 9) to persuade the King or government to sponsor their voyages.  
• Divide students into groups. Each group stands for one of the navigators at that time. Each group will have a fact sheet to facilitate discussion. Each group shows how it convinces the government to sponsor the voyage by using maps and posters.  
• Give students 10 minutes for group discussion and preparation of poster. Students should write down explanations as to assist the group presentation in the next 10 minutes.  
• When everyone has presented and had time to rebut, ask the class to vote on their most favourite trip of discovery. Remind students that they should not just vote for their trip, but really think about the most convincing arguments. | *(From structured to open)*  
Ensure students understand the difficulties of various navigators.  

5 mins | **Conclusion** | • Review the concepts conducted in the lesson:  
1) Causes of voyages of discovery;  
2) Major problems encountered during the voyages of discovery. | Ensure students to conceptualize the key ideas of developments during voyages of discovery  
**Students’ work**  
(Appendix 5)
Data collected from Form A

Data collected from Form B

<table>
<thead>
<tr>
<th>Reading level R(1-3)</th>
<th>Writing Level W(1-3)</th>
<th>Group (G) / Solo (S)</th>
<th>Interests</th>
<th>Visual(V)</th>
<th>Auditory(A)</th>
<th>Kinesthetic(K)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1 : 21%</td>
<td>W1 : 29%</td>
<td>G : 43%</td>
<td>Reading : 29%</td>
<td>V : 22%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R2 : 50%</td>
<td>W2 : 50%</td>
<td>S : 57%</td>
<td>Drawing : 7%</td>
<td>V/A : 50%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R3 : 29%</td>
<td>W3 : 21%</td>
<td></td>
<td>Writing : 7%</td>
<td>V/K : 7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sports : 14%</td>
<td>V/A/K : 7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Computer : 36%</td>
<td>N/A : 14%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>N/A : 7%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Critical thinking skills C1(1-3)</th>
<th>Collaboration Skills C2(1-3)</th>
<th>Creativity C3(1-3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1-1 : 50%</td>
<td>C2-1 : 29%</td>
<td>C3-1 : 36%</td>
</tr>
<tr>
<td>C1-2 : 22%</td>
<td>C2-2 : 64%</td>
<td>C3-2 : 43%</td>
</tr>
<tr>
<td>C1-3 : 21%</td>
<td>C2-3 : 7%</td>
<td>C3-3 : 21%</td>
</tr>
<tr>
<td>N/A : 7%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Equalizer: A tool for differentiating process and product

**Topic: Voyages of Discovery (S2)**

<table>
<thead>
<tr>
<th>Concrete</th>
<th>Abstract</th>
</tr>
</thead>
<tbody>
<tr>
<td>What were the examples of East-west encounters before voyages of discovery?</td>
<td>What was east-west encounter?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Foundational</th>
<th>Transformational</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why did the navigators look for new sea routes?</td>
<td>What were the long term effects of the voyages of discovery?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Structured</th>
<th>Open</th>
</tr>
</thead>
<tbody>
<tr>
<td>Draw a poster or write a letter to the king or government for sponsorship of navigation.</td>
<td>Decide which poster or letter is convincing and give reasons for your choice.</td>
</tr>
</tbody>
</table>

Learning Contract

Think Tac Toe

Topic: Voyages of Discovery

Name of student(s): ___________________________  Signature: ___________________________

Due Date: ___________________________

Assessment Criteria for Think Tac Toe

Task 1: A poem about navigators
- format is correct
- content is relevant (reasons /difficulties /results of navigation)

Task 2: A song about navigators
- format is correct
- content is relevant (reasons for navigation)

Task 3: Matching exercise
- matching is correct
- navigators’ motives are clear

Task 4: Make a model of sailing ship
- outlook and structure are correct
- historical context is accurate

Task 5: Draw sea routes of navigators
- the routes are correct
- neat and tidy

Task 6: Complete a graphic organizer
- answers based on the video
- answers based on own knowledge

Task 7: A diary about navigation
- format is correct
- content is based on the right historical context

Task 8: A poster about navigators’ daily necessities
- format is correct
- purpose is clear

Task 9: A letter asking for sponsorship of navigation
- format is correct
- purpose is clear
The navigators started the Voyages of Discovery. They discovered new sea routes to the East and found new places that Europeans had never heard of before.

Let’s write a poem / compose a song about the navigators!
(Write about his / their reasons of their voyages of discovery.)

Tasks 1 / 2

Name : ___________________________  Class : ___________  Class no : ___________

A Poem / Song of Navigators

The navigators started the Voyages of Discovery. They discovered new sea routes to the East and found new places that Europeans had never heard of before.
Let’s write a poem / compose a song about the navigators!
(Write about his / their reasons of their voyages of discovery.)

Name of Navigator(s) : ___________________________________________
Task 3
Study the pictures of food and the map below. Match the food to their places of origin.

- Potatoes: originated in South America
- Tomatoes: originated in South America
- Coffee: cultivated in Africa
- Tea: cultivated in China
- Peanuts: originated in South America
- Bananas: cultivated in Southeast Asia
## Task 4

Make a model of the navigators’ sailing ship.

## Task 5

Refer to the fact sheet below and draw sea routes of navigators on the map.

### Navigators

<table>
<thead>
<tr>
<th>Navigators</th>
<th>Sea Routes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bartholomew Diaz</td>
<td>• Set off from Europe and travelled south via southern Africa to reach Asia.</td>
</tr>
<tr>
<td></td>
<td>• He sailed round the southernmost tip of Africa in 1488.</td>
</tr>
<tr>
<td>Vasco Da Gama</td>
<td>• Set off from Europe and travelled south via southern Africa to reach Asia.</td>
</tr>
<tr>
<td></td>
<td>• He successfully landed in Calicut in India in 1498.</td>
</tr>
<tr>
<td>Christopher Columbus</td>
<td>• Set off from Europe and travelled west to cross the Atlantic and Pacific Oceans to reach Asia.</td>
</tr>
<tr>
<td></td>
<td>• He reached the West Indies, including islands such as the Bahamas and Cuba in 1492.</td>
</tr>
<tr>
<td>Ferdinand Magellan</td>
<td>• Set off from Europe and travelled west to cross the Atlantic and Pacific Oceans to reach Asia.</td>
</tr>
<tr>
<td></td>
<td>• He passed through the Straits of Magellan and reached the Pacific of Asia.</td>
</tr>
<tr>
<td></td>
<td>• One of his 5 ships successfully returned to Spain in 1522.</td>
</tr>
</tbody>
</table>
Task 6

Graphic Organizers – ‘Mel-o-toons: Christopher Columbus’
(Source: http://www.youtube.com/watch?v=kuvRFZ4Mxbo)

According to the video “Mel-o-toons: Christopher Columbus”, and using your own knowledge, complete the graphic organizer as follows:
Task 7

Name: __________________________  Class: __________  Class no: __________

Diary of Navigators

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
Task 8 / 9

Name: ___________________________  Class: _______  Class no: __________

A Poster / Letter of Navigators to their king

Before the navigators started the Voyages of Discovery, they had to plan for their routes, estimate the cost and find someone to sponsor them. Draw a poster about navigators' daily necessities/write a letter to the king to ask him for sponsorship of navigation.
Appendix 5
Students’ work

S2 History
East-west Encounters - Voyages of Discovery

A SONG OF NAVIGATORS

The navigators started the Voyages of Discovery. They discovered new sea routes to the East and found new places that Europeans had never heard of before. They started a new age in European History. Let’s compose a song about navigators and thanks for their contribution!
Appendix 5
Students’ work

2012-13
S2 History

Voyages of Discovery

Write about 50 to 100 words for the topic below.

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Role</th>
<th>Audience</th>
<th>Format</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aims at asking for sponsorship of navigation</td>
<td>Columbus</td>
<td>The King of Spain</td>
<td>Letter</td>
<td>It’s time for Sailing!</td>
</tr>
</tbody>
</table>

Dear the King of Spain:

It’s time for Sailing! I am writing to ask for sponsorship of navigation.

I had read The Travels of Marco Polo, I hope to find treasures in the East. After navigation, we can know more about the world, the accurate map can be made. Also, it can growth in world trade, colonial expansion, spread of Christianity and Western knowledge and spread of oriental knowledge to Europe. Due to those advantages, we need to travel around the world, but we need money, mercury, and resources.

Please sponsor us for navigation! We need your help.

Yours sincerely,
Columbus.

Marking Rubrics

<table>
<thead>
<tr>
<th>Accuracy</th>
<th>Perspective</th>
<th>Focus</th>
<th>Mechanics</th>
<th>Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>How correct is your information?</td>
<td>Do you stay in role? How effective are you at performing your role and convincing audience?</td>
<td>Do you stay to assigned format? Do you fully satisfy the chosen topic with numerous details and examples?</td>
<td>Does your writing contain minimal errors?</td>
<td>How is the overall quality of your work compared with past works?</td>
</tr>
</tbody>
</table>