Promoting intangible cultural heritage for educators to reinforce education for sustainable development in the Asia-Pacific Region

Pilot country: Viet Nam

Topic of the lesson: General features and roles of mollusks
Subject: Biology
ICH Element: Shell inlay craftsmanship
ESD Theme: Respect for environment
Grade: 7

1. Objectives

1.1. Knowledge
- Analyze the diversity of molluscs.
- Present several common characteristics of molluscs.
- Analyze the economic and art values of molluscs.
- Discuss mollusc farming and the traditional shell-inlay craft villages that depend on molluscs.

1.2. Skills
- Observe and analyze drawings/photos.
- Analyze, compare, and generalize.
- Solve a practical problem via teamwork and give presentations.

1.3. Attitude
- Students enjoy the learning about the subject.
- Students become aware of the need to conserve molluscs, so as to safeguard cultural heritage and jobs in the mollusc-growing and pearl-shell handicrafts industries.
- Students learn how to use natural materials to make handicrafts.

2. Preparation

2.1. Teacher
- Pictures, photos, a documentary film about molluscs and traditional crafts related to molluscs.
- Computer, projector, PowerPoint presentation.
- Digital overhead projector.
- Collect materials and information through books and the internet.
- Conduct fieldwork to collect data, objects and photos for the lesson.
- Make a short video about the craft village for the lesson.
- Collect materials required for students to try preparing shells for inlaying work.

2.2. Students
- Read the lesson content beforehand; Draw table 1 on page 72 into notebook.
- Collect documents including pictures/photos about the roles of molluscs and traditional handicrafts related to molluscs.
- Collect stories and shell-inlay objects within families and villages.
- Write, draw or take photographs of the handicrafts and handicraft villages.

3. Lesson content
- Revisit previous lesson: List names and characteristics of molluscs (3 minutes).
### Activity 1: Understanding the common characteristics of phylum mollusca (7 minutes)

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Teacher's Activities</th>
<th>Students' Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. General characteristics</strong></td>
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<tr>
<td>1.1. The diversity of molluscs</td>
<td>Hang up large pictures of mollusc species. Ask students to observe the pictures together with textbook information, and to give comments about the sizes, habitats and behaviours of molluscs.</td>
<td>Observe the pictures, read textbook, and discuss in group to find answers.</td>
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<tr>
<td>▪ Very large number of species</td>
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<tr>
<td>▪ Size</td>
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<tr>
<td>▪ Habitat</td>
<td></td>
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<td>▪ Behaviours</td>
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<tr>
<td>1.2. Common characteristics of molluscs</td>
<td>Show Figure 21 on projector. Request students do exercises on pages 71 and 72 in the textbook.</td>
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<tr>
<td>▪ Soft body</td>
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<tr>
<td>▪ Not segmented</td>
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<tr>
<td>▪ Calcium carbonate shell</td>
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<tr>
<td>▪ Developed mantle cavity</td>
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<td>▪ Complete digestive tract</td>
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<td><strong>Activity 2: Understanding the uses of phylum mollusca (15 minutes)</strong></td>
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<td><strong>2. Roles</strong></td>
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<td>2.1. Benefits</td>
<td>Ask the representatives of each group to give a presentation of the report his/her group has prepared in advance. Encourage students to give feedback to each other.</td>
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<td>▪ They clean the aquatic environment</td>
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<tr>
<td>▪ They are food for humans and for terrestrial and aquatic animals.</td>
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<td>▪ Their shells can be used as materials for making jewellery and decorations.</td>
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<td>▪ The farming of molluscs and the production of handicrafts are significant sources of employment, livelihoods and</td>
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<tr>
<td><strong>Knowledge, Teacher's Activities, Students' Activities</strong></td>
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2.2. Disadvantages
- They damage some crops.
- They can be sources of bacterial diseases.
- They destroy wooden structures under water (the hulls of boats, etc).

Molluscs provide many traditional handicrafts with important materials. How are these materials used? → Part 3

Table 2.
- Each student to correct his/her answers for Table 2.
- Take notes.

Activity 3: Students to experience traditional craft using mollusc shells (18 minutes)

- Show a video about a shell-inlaying village.
- Divide the class into four groups of 8 to 10 students and give instructions:
  - Group 1 and Group 2: Try one step in the process of inlaying mollusc shells.
  - Group 3: Decorate the shells.
  - Group 4: Make decorations or toys from the shells.
- Give the groups time and space to display their products.
- A representative of each group gives a presentation of the group’s products and display.
- Take notes.

Knowledge expansion
Molluscs provide important materials for many traditional handicrafts such as shell-inlay, jewellery and ornaments, as well as medicines and food.

- Watch the video and memorize information.
- Participate in the activities.
4. Review and evaluation:
   - Read the memo at the end of lesson in textbook.
   - Answer all questions at the end of the lesson in the textbook.

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