

## iDA- Interdisciplinary Areas

### Environment Education Syllabus - Academic Year 2024-25

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#### Chapter 2: Assessment Modules

##### Indoor Activities

##### Activity 1. Interactive Presentations by the Guest Speaker

**Explanation:** Invite local experts to give interactive presentations on topics related to biodiversity. Allow students to ask questions and engage in discussions.

##### Student Tasks:

##### Task 1: Note-Taking

During the presentation, take detailed notes on the key points discussed by the guest speaker.

##### Task 2: Question Formulation

Prepare at least three thoughtful questions to ask the guest speaker based on the presentation content.

##### Task 3: Reflective Summary

Write a one-page summary reflecting on what you learned from the presentation. Include your thoughts on how this information can be applied to protect local biodiversity.

##### Teacher Assessment Criteria:

##### Criteria 1: Engagement

Evaluate how actively the student participated in the discussion and question session.

##### Criteria 2: Understanding

Assess the depth of understanding shown in the notes and the quality of the questions formulated.

##### Criteria 3: Reflection

Review the reflective summary for insights and connections made to local biodiversity protection efforts.

##### Evaluation Rubric:

Competencies	Excellent	Good	Fair	Needs Improvement
<b>Engagement</b>	Actively participated and asked insightful questions.	Participated and asked relevant questions.	Limited participation and few questions.	Little to no participation and no questions.
<b>Understanding</b>	Notes are	Notes are	Notes are	Notes are

	detailed, and questions show deep understanding.	complete, and questions are relevant.	incomplete, and questions are basic.	sparse, and no questions prepared.
<b>Reflection</b>	Summary is insightful, well-connected to local biodiversity.	Summary shows understanding and some connection.	Summary shows basic understanding and limited connection.	Summary lacks understanding and connection.

### Assessment Breakdown:

#### 1. Engagement:

**Excellent:** Actively participated throughout and asked multiple insightful questions.

**Good:** Participated most of the time and asked some relevant questions.

**Fair:** Limited participation and asked few questions.

**Needs Improvement:** Little to no participation and no questions asked.

#### 2. Understanding:

**Excellent:** Notes are thorough and questions reflect a deep understanding of the presentation.

**Good:** Notes are complete and questions are relevant to the presentation.

**Fair:** Notes are incomplete and questions show a basic understanding.

**Needs Improvement:** Notes are sparse and questions are either basic or non-existent.

#### 3. Reflection:

**Excellent:** Summary is comprehensive, showing deep insights and strong connections to protecting local biodiversity.

**Good:** Summary demonstrates a good understanding and makes some connections to local biodiversity.

**Fair:** Summary shows a basic understanding with limited connections to local biodiversity.

**Needs Improvement:** Summary lacks a clear understanding and does not connect to local biodiversity.

## Activity 2: Nature Journaling

**Explanation:** Provide students with blank journals to record their observations of local biodiversity creatively. Encourage them to sketch plants, animals, and other natural features they encounter, and to write descriptions, poems, or articles.

### Student Tasks:

#### Task 1: Observational Sketches

Sketch at least five different plants and animals observed in the local environment. Include labels and brief descriptions for each sketch.

#### Task 2: Written Descriptions

Write detailed descriptions of the observed plants and animals. Include information such as habitat, behavior, and any unique characteristics.

#### Task 3: Creative Component

Choose one creative component: write a poem or article, create a model, or design an informative poster about a specific plant or animal.

### Assessment Criteria for Teachers

#### Completeness:

Are all tasks completed as per the instructions?

#### Accuracy:

Are the observations and descriptions accurate and detailed?

#### Creativity and Presentation:

Is the work presented creatively and attractively? Does it show effort and originality?

### Evaluation Rubric:

Competencies	Excellent	Good	Fair	Needs Improvement
<b>Completeness</b>	All tasks fully completed and detailed	Most tasks completed with good detail	Some tasks incomplete or lack detail	Several tasks incomplete or poorly detailed
<b>Accuracy</b>	Highly accurate and detailed observations	Generally accurate with good detail	Some inaccuracies and lacking detail	Many inaccuracies and minimal detail
<b>Creativity and Presentation</b>	Highly creative, well-presented, shows great effort	Good creativity and presentation, shows effort	Some creativity, but presentation could be improved	Lacks creativity and poor presentation

### Activity 3: Specimen Identification

**Explanation:** Students will identify specimens of local plant varieties, animal breeds, insects, and other natural objects (e.g., bird feathers, mammal hairs, animal stamps and postcards, snake skin, animal bones, dried plants—herbarium). They will use guidebooks or online resources to identify each specimen and take notes on their characteristics.

#### Tasks for Students

##### Task 1: Identify and Document:

Use guidebooks or online resources to identify 10 different specimens provided.

Write down the common name, scientific name, and a brief description of each specimen.

##### Task 2: Describe Characteristics:

Note the key characteristics (color, shape, size, unique features) of each specimen.

Explain the habitat and role of each specimen in the ecosystem.

##### Task 3: Presentation:

Create a visual presentation (poster or digital) showcasing all 10 specimens.

Include images or drawings of the specimens and your notes.

### Assessment Criteria for Teachers

**Accuracy of Identification:** Correct identification of each specimen. Accurate scientific and common names.

**Detail of Characteristics:** Thoroughness in describing the characteristics and habitat. Clarity and completeness of notes.

**Quality of Presentation:** Visual appeal and organization of the presentation. Inclusion of all required elements (images, notes, descriptions).

### Evaluation Rubric:

Competency	Excellent	Good	Fair	Needs Improvement
<b>Accuracy of Identification</b>	Identified all specimens correctly with accurate scientific and common names.	Identified most specimens correctly; minor errors in scientific names.	Identified some specimens correctly; several errors in names.	Identified few specimens correctly; many errors in names.
<b>Detail of Characteristics</b>	Detailed and clear descriptions; well-explained habitat and role.	Mostly detailed descriptions; some minor omissions.	Basic descriptions; lacks depth in explaining habitat and role.	Incomplete descriptions; missing key details and explanations.
<b>Quality of Presentation</b>	Highly organized, visually appealing; all elements included and well-presented.	Organized and visually appealing; most elements included.	Some organization and visual appeal; missing a few elements.	Lacks organization and visual appeal; missing many elements.

### Activity 4: Virtual Field Trips

**Explanation:** Utilize online resources, such as videos and documentaries, to take students on virtual field trips to understand biodiversity and different ecosystems. Engage them in discussions to enhance their understanding. This approach can expose students to biodiversity and various ecosystems without leaving the classroom.

#### Tasks for Students

**Watch a Documentary:** Watch a selected documentary on biodiversity and ecosystems. Write a summary highlighting the key points. Identify and describe three different ecosystems featured in the documentary.

**Discussion Participation:** Engage in a class discussion about the documentary. Share one interesting fact you learned. Ask one thoughtful question related to the documentary content.

**Create a Visual Project:** Create a poster or a digital presentation about one ecosystem covered in the documentary. Include information about the flora, fauna, and any specific conservation issues. Use images or drawings to illustrate the ecosystem.

#### Assessment Criteria for Teachers:

**Understanding and Content:** Evaluate students' understanding of the documentary content through their summaries and participation in discussions.

**Engagement and Participation:** Assess the level of student engagement and their contributions to the discussion.

**Creativity and Presentation:** Evaluate the creativity and accuracy of the visual project, including the use of images and information provided.

**Evaluation Rubric:**

Competencies	Excellent	Good	Fair	Needs Improvement
<b>Understanding and Content</b>	Summary and discussion show a deep understanding of the documentary; ecosystems are described accurately and in detail.	Summary and discussion show a good understanding; ecosystems are described well with minor inaccuracies.	Summary and discussion show a basic understanding; ecosystems are described with some inaccuracies.	Summary and discussion show limited understanding; ecosystems are poorly described or missing details.
<b>Engagement and Participation</b>	Actively participates, shares interesting facts, and asks insightful questions.	Participates regularly, shares facts, and asks relevant questions.	Participates occasionally, shares facts with prompting, and asks simple questions.	Rarely participates, shares few facts, and does not ask questions.
<b>Creativity and Presentation</b>	Visual project is highly creative, accurate, and well-presented with detailed illustrations.	Visual project is creative, mostly accurate, and well-presented with good illustrations.	Visual project is somewhat creative, with some inaccuracies, and basic illustrations.	Visual project lacks creativity, contains inaccuracies, and has poor or no illustrations.

**Activity 5: Biodiversity Conservation Campaign**

**Explanation:** Challenge students to design a multimedia campaign to raise awareness about the importance of biodiversity conservation in their community. Students can create posters, videos, photos, or educational materials highlighting key messages and conservation actions. Encourage creativity and collaboration among students to develop impactful and engaging campaign materials.

**Tasks for Students**

**Create Campaign Materials:** Design a poster, make a video, or take a series of photos highlighting the importance of biodiversity and conservation actions. Include clear, concise messages and eye-catching visuals.

**Presentation:** Present your campaign materials to the class.

Explain the key messages and the conservation actions you are promoting.

**Collaborative Effort:** Work in groups to develop your campaign.

Ensure each group member contributes to the creation and presentation of the campaign materials.

**Assessment Criteria for Teachers:**

**Content Quality:** Accuracy and relevance of the information presented. Clarity of key messages about biodiversity conservation.

**Creativity and Engagement:** Creativity in the design of the campaign materials. Ability to engage and capture the audience's attention.

**Collaboration:** Evidence of teamwork and equal participation. Effective communication and collaboration among group members.

### Evaluation Rubrics:

Competencies	Excellent	Good	Fair	Needs Improvement
<b>Content Quality</b>	Information is highly accurate and relevant, messages are very clear	Information is accurate and relevant, messages are clear	Information is somewhat accurate and relevant, messages are somewhat clear	Information is inaccurate or irrelevant, messages are unclear
<b>Creativity and Engagement</b>	Campaign is highly creative and extremely engaging	Campaign is creative and engaging	Campaign is somewhat creative and engaging	Campaign lacks creativity and is not engaging
<b>Collaboration</b>	Strong evidence of teamwork, all members contributed equally	Good evidence of teamwork, most members contributed equally	Some evidence of teamwork, uneven contribution	Little to no evidence of teamwork, unequal contribution

### Activity 6: Celebrating Important Environment-Related Days

**Explanation:** Organize events to celebrate important environmental days to foster awareness and action among students.

#### Tasks for Students:

**Poster Creation:** Create a poster about an environment-related day (e.g., Earth Day, World Water Day). Include key information, messages, and visuals.

**Presentation:** Prepare and deliver a 3-minute presentation about the significance of the chosen environmental day. Discuss why it is important and what actions can be taken to support the cause.

**Participation in Activities:** Actively participate in organized activities (e.g., tree planting, recycling drive, clean-up event). Work collaboratively with peers.

#### Assessment Criteria for Teachers:

**Creativity and Clarity:** Evaluate the creativity and clarity in the poster and presentation. Look for clear, concise, and engaging content.

**Knowledge and Understanding:** Assess the student's knowledge and understanding of the chosen environmental day. Check for accurate information and depth of insight.

**Engagement and Teamwork:** Observe the student's engagement in activities and ability to work as part of a team. Note participation, cooperation, and enthusiasm.

### Evaluation Rubrics:

Competency	Excellent	Good	Fair	Needs
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				<b>Improvement</b>
<b>Creativity and Clarity</b>	Highly creative and very clear; excellent visuals and messages	Creative and clear; good visuals and messages	Some creativity and clarity; visuals and messages are basic	Lacks creativity and clarity; poor visuals and messages
<b>Knowledge and understanding</b>	Demonstrates deep understanding with comprehensive information	Shows good understanding with accurate information	Basic understanding with some correct information	Limited understanding with inaccurate or incomplete information
<b>Engagement and Teamwork</b>	Highly engaged, works very well with peers, shows great enthusiasm	Engaged, works well with peers, shows good enthusiasm	Some engagement, works with peers, shows some enthusiasm	Lacks engagement, struggles with teamwork, shows little enthusiasm

## Outdoor Activities

### Activity 1. Field Trip Activity: Exploring Local Biodiversity

**Explanation:** Organizing a field trip, nature walk, or birdwatching session to immerse students in the exploration of local biodiversity around their school, backyard, home garden, and community gardens. Examples include visiting wildlife sanctuaries, national parks, biodiversity parks, community gardens, wetlands, mangroves, sand dunes, rivers, and beaches.

#### Tasks for Students:

**Species Identification:** Identify and record 5 different species (plants, animals, or insects) observed during the trip.

**Habitat Description:** Write a brief description of one habitat (e.g., wetland, forest, grassland) visited, including the types of organisms found there and their interactions.

**Conservation Reflection:** Write a short reflection on why conserving local biodiversity is important, mentioning any traditional knowledge or practices observed during the trip.

#### Assessment Criteria for Teachers:

**Observation Skills:** Ability to accurately identify and record species.

**Descriptive Writing:** Clarity and detail in describing habitats and species interactions.

**Understanding of Conservation:** Insightfulness and relevance in reflecting on biodiversity conservation.

#### Evaluation Rubrics:

Competencies	Excellent	Good	Fair	Needs
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				<b>Improvement</b>
<b>Observation Skills</b>	Identifies and records 5 species accurately with detailed notes.	Identifies and records 4 species accurately with good notes.	Identifies and records 3 species with some accuracy and notes.	Identifies and records 1-2 species with minimal notes or accuracy.
<b>Descriptive Writing</b>	Descriptions are clear, detailed, and well-organized, showing a deep understanding of the habitat.	Descriptions are clear and organized, showing a good understanding of the habitat.	Descriptions are somewhat clear and organized, showing a basic understanding of the habitat.	Descriptions lack clarity, detail, and organization, showing minimal understanding of the habitat.
<b>Understanding of Conservation</b>	Reflection is insightful, relevant, and demonstrates a deep understanding of conservation importance.	Reflection is relevant and demonstrates a good understanding of conservation importance.	Reflection is somewhat relevant and demonstrates a basic understanding of conservation importance.	Reflection lacks relevance and demonstrates minimal understanding of conservation importance.

## Activity 2. Habitat Restoration and Conservation

**Explanation:** Engage students in hands-on conservation work by participating in habitat restoration activities such as planting native species, a school garden (pollinator garden with flowering plants, butterfly gardens, medicinal gardens), removing invasive plants (*Chromolaena odorata*, *Lantana camara*, water hyacinth), building birdhouses, etc.

### Tasks for Students:

**Planting Native Species:** Plant native flowering plants in the school garden or pollinator garden. Ensure proper spacing, planting depth, and watering.

**Removing Invasive Plants:** Identify and remove invasive plant species such as *Chromolaena odorata*, *Lantana camara*, and water hyacinth. Dispose of removed plants appropriately to prevent re-growth.

**Building Birdhouses:** Design and build a simple birdhouse using provided materials. Ensure the birdhouse is safe, durable, and appropriately sized for local bird species.

### Assessment Criteria for Teachers:

**Participation and Effort:** Level of engagement and enthusiasm in completing tasks. Willingness to participate and assist peers.

**Accuracy and Quality of Work:** Correct identification of native and invasive plants. Quality of planting, removal, and construction tasks.

**Teamwork and Communication:** Ability to work effectively in groups. Clear communication and collaboration with peers.

### Evaluation Rubric:



Competency	Excellent	Good	Fair	Needs Improvement
<b>Participation and Effort</b>	Always engaged and enthusiastic; took initiative.	Mostly engaged and enthusiastic; participated well.	Some engagement; minimal enthusiasm.	Rarely engaged; little to no effort shown.
<b>Accuracy and Quality of Work</b>	Correctly identified all plants; high-quality planting, removal, and construction.	Mostly correct identification; good quality work with minor errors.	Some correct identification; moderate quality work with several errors.	Incorrect identification; poor quality work with many errors.
<b>Teamwork and Communication</b>	Excellent teamwork and clear communication; helped others effectively.	Good teamwork and communication; occasionally helped others.	Some teamwork and communication; limited assistance to peers.	Little to no teamwork; poor communication and no assistance to peers.

### Activity 3. Children's Biodiversity Register

**Explanation:** Introduce students to the Children's Biodiversity Register initiative, where they can contribute their observations and prepare a checklist of local biodiversity. This activity will help students learn about local species, understand their importance, and contribute to biodiversity conservation.

#### Tasks for Students:

**Observation and Recording:** Spend time outdoors and observe different plants, animals, and insects. Record your observations in a notebook, including the name, description, and location of each species.

**Preparing a Checklist:** Compile a checklist of at least 10 different species observed. Include information about each species such as common name, scientific name (if possible), habitat, and any interesting facts.

**Presentation:** Prepare a short presentation (5-7 minutes) about one species from your checklist. Include details about its habitat, role in the ecosystem, and why it is important to protect it.

#### Assessment Criteria for Teachers:

**Completeness and Accuracy:** Are the observations complete and accurately recorded? Does the checklist include detailed and correct information about each species?

**Understanding and Engagement:** Does the student demonstrate an understanding of the species and their role in the ecosystem? Is the student engaged and enthusiastic about the activity?

**Presentation Skills:** Is the presentation clear and well-organized? Does the student effectively

communicate their findings and insights?

### Evaluation Rubrics:

Competencies	Excellent	Good	Fair	Needs Improvement
<b>Observation and Recording</b>	Detailed and accurate observations of more than 10 species.	Accurate observations of at least 10 species.	Observations include 5-9 species with some inaccuracies.	Fewer than 5 species observed or many inaccuracies.
<b>Preparing a Checklist</b>	Comprehensive checklist with detailed info for each species.	Checklist includes all required info for each species.	Checklist includes most required info but lacks detail.	Checklist is incomplete or lacks necessary info.
<b>Presentation</b>	Clear, well-organized, engaging, and informative.	Clear and organized with adequate information.	Somewhat clear, lacks organization or detail.	Unclear, disorganized, and missing key information.

### Activity 4. Visit the Local Market

**Explanation:** Encourage students to visit the local market in groups to collect samples or photos of different varieties and species of fish, grains, pulses, vegetables, and fruits. Have them share their knowledge with other students through a presentation to explain the concepts of genetic and species diversity.

#### Tasks for Students:

**Collection and Documentation:** Visit the local market and collect samples or take photos of different varieties and species of fish, grains, pulses, vegetables, and fruits. Document the names and characteristics of each item collected or photographed.

**Presentation Preparation:** Create a presentation that includes the collected samples/photos. Explain the concepts of genetic diversity (variety within species) and species diversity (variety of different species).

**Presentation Delivery:** Present your findings to the class. Highlight key points about the importance of biodiversity.

#### Assessment Criteria for Teachers:

**Completeness of Collection:** Has the student collected or documented a diverse range of items? Are the names and characteristics accurately recorded?

**Understanding of Concepts:** Does the presentation clearly explain genetic diversity and species diversity? Are the concepts accurately applied to the collected items?

**Presentation Skills:** Is the presentation well-organized and engaging? Does the student speak clearly and confidently?

### Evaluation Rubrics:

Competencies	Excellent	Good	Fair	Needs Improvement
<b>Collection and Documentation</b>	Comprehensive and accurate collection of a wide variety of items with detailed characteristics.	Good variety of items with mostly accurate characteristics.	Limited variety of items with some inaccuracies in characteristics.	Few items collected with many inaccuracies in characteristics.
<b>Understanding of Concepts</b>	Concepts of genetic and species diversity are explained clearly and accurately with excellent examples.	Concepts are explained well with good examples.	Basic explanation of concepts with some relevant examples.	Concepts are unclear or incorrect with few or no examples.
<b>Presentation Skills</b>	Well-organized, engaging, clear, and confident presentation.	Organized and clear presentation with minor engagement issues.	Somewhat organized but lacks clarity and engagement.	Disorganized presentation with poor clarity and engagement.

### Activity 5. Nature Photography/Videography/Documentary

**Explanation:** Encourage students to capture images or videos of local biodiversity. Provide guidance on composition and subject matter, and showcase their photos and videos in a school.

#### Tasks for Students:

**Capture Images or Videos:** Take photos or videos of at least 5 different types of local plants or animals. Focus on clear, well-composed shots that showcase the subject effectively.

**Write a Brief Description:** Write a short description (2-3 sentences) for each photo or video explaining the subject and why it was chosen. Include interesting facts or observations about the plant or animal.

**Presentation:** Create a simple presentation or poster displaying your photos/videos and descriptions. Ensure the presentation is neat, visually appealing, and informative.

#### Assessment Criteria for Teachers

**Creativity and Composition:** Assess the creativity and visual composition of the photos/videos.

**Accuracy and Informative Content:** Evaluate the accuracy and informativeness of the descriptions provided.

**Presentation Quality:** Judge the overall quality, clarity, and attractiveness of the presentation or poster.

### Evaluation Rubrics

<b>Competency</b>	<b>Excellent</b>	<b>Good</b>	<b>Fair</b>	<b>Needs Improvement</b>
<b>Creativity and Composition</b>	Innovative and well-composed shots showing high creativity	Good composition with some creativity	Basic composition with limited creativity	Poor composition and lack of creativity
<b>Accuracy and Informative Content</b>	Highly accurate and very informative descriptions	Mostly accurate and informative descriptions	Some accuracy and basic information	Inaccurate or very limited information
<b>Presentation Quality</b>	Neat, visually appealing, and highly informative	Clear and informative, visually good	Basic presentation with some clarity	Poorly presented and unclear information