MODEL LESSON PLAN IN CONVENTIONAL METHOD

Name of the Teacher:

Name of the School:

Standard : IX                          Date :

Subject : Biology                      Period :

Unit : The Living World               Timings :

Sub-Unit : Porifera                   Division :

General Objectives

❖ To enable the students to develop interest in Biology.
❖ To enable the students to develop Scientific Attitude.
❖ To enable the students to develop Concept of Life.
❖ To enable the students to Identify the different Species of Living Organisms.

Specific Objectives

Knowledge

❖ To enable the students to recall that Poriferans has perforated body.
❖ To enable the students to recall that sponges are described as cellular level of organization.
❖ To enable the students to recognize that Poriferans are aquatic.

Understanding

❖ To enable the students to give examples for different Porifera.
❖ To enable the students to differentiate between Spicules and Osculum.
Appreciation

❖ To enable the students to appreciate the different uses of Sponges.
❖ To enable the students to appreciate diversity in animal kingdom.

Skill

❖ To enable the students to draw the diagram of Longitudinal Section of Sponge.
❖ To enable the students to observe the Specimens of Porifera.

Teaching Aids

❖ Specimen of Sycon, Euplectella, Fresh Water Mussel.
❖ Chart showing Longitudinal Section of Sponge.
<table>
<thead>
<tr>
<th>Content</th>
<th>Learning Outcomes</th>
<th>Teacher-Pupil Activity</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introduction</strong></td>
<td></td>
<td>Dear students we are living in the environment with many living beings</td>
<td></td>
</tr>
<tr>
<td>Man, Ant, Snake, Termite, Crab, etc are the living beings</td>
<td>Pupils recalls and answers</td>
<td>Name some of the living beings</td>
<td></td>
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<tr>
<td>Ant is small and man is bigger in size, ant does not possess bones but man has proper back bone</td>
<td>Pupils recalls and answers</td>
<td>Mention the difference between any and man</td>
<td></td>
</tr>
<tr>
<td>The animal which possess backbone are called invertebrates</td>
<td>Pupils recalls and answers</td>
<td>What do we call these animals which possess backbone</td>
<td></td>
</tr>
<tr>
<td>The animal which does not possess backbone are called invertebrates</td>
<td>Pupils recalls and answers</td>
<td>What do we call animals which does not possess backbone</td>
<td></td>
</tr>
<tr>
<td><strong>Statement of Aim</strong> : In this class let us study more about Phyla Porifera invertebrates</td>
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<tr>
<td><strong>Development</strong></td>
<td></td>
<td>The invertebrates are classified into Phyla and very first Phyla is Porifera</td>
<td></td>
</tr>
</tbody>
</table>
| Sycon, Euplectella are some examples of sponges | Pupil comprehends the characteristics | Characteristics of Porifera :  
❖ The members of the Phylum Porifera are commonly called Sponges | |
<p>| | Pupils recalls and answers | | Name some sponges |
| | Pupil observes the specimen | The teacher shows the specimen of Sycon, Euplectella | |</p>
<table>
<thead>
<tr>
<th>The fresh water Mussel and Snale are the examples for fresh water Molluscans</th>
<th>Pupils recalls and answers</th>
<th>Mention some fresh water Molluscans</th>
</tr>
</thead>
<tbody>
<tr>
<td>❖ Surface of the body in these animals is perforated by numerous pores called Ostia. Hence the name, they are aquatic, most of them are Marine and some live in fresh water.</td>
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</tr>
<tr>
<td>❖ These are attached to rocks, weeds, shells and other objects in water. The shape of the body differs flat, globular or branched.</td>
<td>The teacher shows the specimen of fresh water Mussel and Snale</td>
<td></td>
</tr>
</tbody>
</table>
The teacher explains with the help of chart showing LS of Sponge.

| Pupil observes and comprehend | The body encloses a large central cavity called the *spongocoel*. The internal surface of the cavity is lined by unique type of flagellated cells called **collar cells** or **choanocytes**. Body is not only having the pores but also numerous canals and chambers. Water can easily enter the spongocoel through ostia. Spongocoel opens to the exterior at the free end by a narrow opening called 'osculum'. Water enters the body through ostia and passes out through **Osculum**. Water-flows in the body regularly and provides oxygen necessary for respiration. It also carries minute organisms which are used as food by the sponge. Sponges possess an internal skeleton in the form of crystalline structures called **spicules** which protect and support the body. Spicules are composed of calcium carbonate or silica or spong in fibres. Minute organisms carried in to the body by the water current, are digested inside the cells of the body. |
Recaptulation: Let us recall what we have studied

Sponges reproduce both by asexual and sexual methods. In fresh water sponges asexual reproduction occurs through structures called 'gemmules'.

Sexual reproduction occurs by the reproduction and union of male and female gametes.

Uses:
1. Sponges are used for bathing and washing purpose.
2. Venus flower basket is used for decorative purpose.
3. Sponges serve as food for Molluscans.

Pupil appreciate the values of sponges

Pupil recalls and answers

Mention the characteristics of porifera?
The large central cavity called as spongocoel.

Pupil recalls and answers

What do you call the large central cavity?

Sponges reproduce both by asexual and sexual methods.

Pupil recalls and answers

How does reproduction take place in sponges?

Home Work

1) Mention important characteristics of sponges.

2) List the uses of sponges.

3) Write a short note on
   a) Spongocoel
   b) Spicules
   c) Gemmules