Sand Box Animals

<table>
<thead>
<tr>
<th>Animal</th>
<th>Color</th>
<th>Shape</th>
<th>Texture</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
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<tr>
<td>2.</td>
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<td>3.</td>
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<tr>
<td>4.</td>
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</tbody>
</table>

How are the models like real marine animals?  How are the models different from real marine animals?
Gooze Moves

PART A:
1. How is the gooze able to take the shape of the containers?

2. How is this like an octopus?

3. Is this a good model for how an octopus can change its shape? Why or why not?

PART B:

Wider Funnel Time: ______________________
Narrower Funnel Time: ______________________

4. Through which funnel did the gooze travel the fastest?

5. What do the funnels represent in this model?

6. Do you think an octopus would move more quickly through a smaller or larger opening?

7. How is this important for an octopus to survive?

8. Is this a good model for how an octopus can change its shape? Why or why not?
## Ocean Animal Research

<table>
<thead>
<tr>
<th>Physical Characteristics</th>
<th>Life Characteristics</th>
<th>Habitat</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Unusual characteristics</td>
<td>4. Does it live alone or in a group?</td>
<td>4. What other problems does it have?</td>
</tr>
<tr>
<td>5. How are the male and female different?</td>
<td>5. How does it reproduce its young?</td>
<td>5. Where does it have its babies?</td>
</tr>
</tbody>
</table>

Adaptations From the Depths: Octopus
Flower Garden Banks National Marine Sanctuary
Ocean Animal Research Paper Grading Rubric

RESEARCH:

Amount of Information
_____ 1. 1 or more topics are not addressed.
_____ 2. 1 or more topics are not addressed. Of the topics that are addressed, most questions are answered.
_____ 3. All topics are addressed and most questions are answered.
_____ 4. All topics are addressed and all questions are answered.

Sources
_____ 1. Some sources are not accurately documented.
_____ 2. All sources are accurately documented, but many are not in the desired format.
_____ 3. All sources are accurately documented, but a few are not in the desired format.
_____ 4. All sources are accurately documented in the desired format.

PAPER:

Quality of Information
_____ 1. Information has little or nothing to do with the main topic.
_____ 2. Information clearly relates to the main topic. No details and/or examples are given.
_____ 3. Information clearly relates to the main topic. 1-2 supporting details and/or examples are given.
_____ 4. Information clearly relates to the main topic. Several supporting details and/or examples are given.

Organization
_____ 1. Information appears to be disorganized.
_____ 2. Information is organized, but paragraphs are not well-constructed.
_____ 3. Information is organized with well-constructed paragraphs.
_____ 4. Information is very organized with well-constructed paragraphs.

Mechanics
_____ 1. Many grammatical, spelling, or punctuation errors.
_____ 2. A few grammatical, spelling, or punctuation errors.
_____ 3. Almost no grammatical, spelling, or punctuation errors.
_____ 4. No grammatical, spelling, or punctuation errors.
Diorama Grading Rubric

Accuracy of Content
   _____ 1. Several of the reef elements are not represented accurately.
   _____ 2. All but 2 of the reef elements are represented accurately.
   _____ 3. All but 1 of the reef elements are represented correctly.
   _____ 4. All of the reef elements are represented correctly.

Knowledge Gained
   _____ 1. Student can NOT correctly explain or identify uses of camouflage as represented in the diorama.
   _____ 2. Student can correctly explain uses of camouflage as represented in the diorama, with prompting.
   _____ 3. Student can easily and correctly explain 1-2 uses of camouflage as represented in the diorama.
   _____ 4. Student can easily and correctly explain 3 or more uses of camouflage as represented in the diorama.

Creativity
   _____ 1. Little thought was put into making the diorama interesting. Included 0-1 examples of camouflage.
   _____ 2. Student tried to make the diorama interesting. Included 1 example of camouflage.
   _____ 3. Student put some thought into making the diorama by representing a variety of objects. Included 2 or more examples of camouflage.
   _____ 4. Student put a lot of thought into making the diorama as shown by creative use of materials and variety of objects represented. Included 3 or more examples of camouflage.