Beginning Thoughts

Draw lines between the pictures that you think form a pair.

You don’t need to write in this box.

Discussion Sentence Frames

Starting a discussion of a pair

I think the picture of the ___ goes with the picture of the ___ because ___.

Responding to a discussion of a pair

Group ___ said ___ and I agree with group them because ___.

Or

Group ___ said ___ and I respectfully disagree with them because ___.
What can we Learn From Plants and Animals?

Discussion Summary

I agreed with group __________________ when they argued the picture of the ____________________________ goes with the picture of the ____________________________ because ____________________________________________________________________.

I disagreed with group __________________ when they argued the picture of the ____________________________ goes with the picture of the ____________________________ because ____________________________________________________________________.

instead I think the picture of the ____________________________ goes with the picture of the ____________________________ because ____________________________________________________________________.

*Have a class discussion and fill out the class sentence frames about what structures plants and animals have that humans have copied.

Fill out the following sentence frame for the picture that your teacher shows.

Penguins have ____________________________ that allow them to ____________________________ but humans cannot do this without ____________________________.
Procedure

1. Make a “jacket” using up to three materials. The jacket must be one piece and removable.
2. Record the materials that you used and draw a picture of your jacket.
3. Pull the metal person/thermometer out of the hot water and put your jacket on them.
4. Time how long it takes the thermometer to get to 40°C. You are not allowed to touch your jacket while the temperature is dropping.

Results

Materials Used: ____________________  ____________________  ____________________

Draw a picture of your jacket:

Time to get to 40°C: ____________________
Summary

I think _________________________ which mimicked _________________________ worked the best because ______________________________________________________________

____________________________________________________________________________

____________________________________________________________________________.

I think _________________________ which mimicked _________________________ worked the worst because _____________________________________________________________

____________________________________________________________________________

____________________________________________________________________________.

Discussion Sentence Frames

**Starting a discussion of a pair**

I think the ___ which mimicked ___ worked the best/worst because ___.

**Responding to a discussion of a pair**

Group ___ said ___ and I agree with them because ___.

Or

Group ___ said ___ and I respectfully disagree with them because ___.

Materials

- Shammy
- Thick Felt
- Fat
- Craft Feathers
- Thin Felt
- Cotton

Animal Structures

- Blubber
- Long Fur
- Outer Feathers
- Short Fur
- Skin
- Inner Feathers
Review Questions

1. Do humans do everything better than plants and animals? If not, list one thing that a plant or animal can do better than a human?
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________

2. What is one feature of an animal that you mimicked in your jacket?
____________________________________________________________________________

3. What is one animal that has this feature besides penguins?
____________________________________________________________________________

4. What is something else humans mimic from plants or animals?

<table>
<thead>
<tr>
<th>Plant or Animal we are Mimicking</th>
<th>Trait we are Copying</th>
<th>Invention</th>
</tr>
</thead>
</table>

5. Why do scientists argue?
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
Use the Following Sentence Frames to Discuss Which Pictures Make A Pair

Use the following words to help you.

<table>
<thead>
<tr>
<th>Pictures</th>
<th>Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bird</td>
<td>1</td>
</tr>
<tr>
<td>Elephant</td>
<td>2</td>
</tr>
<tr>
<td>Plane</td>
<td>3</td>
</tr>
<tr>
<td>Lily Pads</td>
<td>4</td>
</tr>
<tr>
<td>Scuba Gear</td>
<td>5</td>
</tr>
<tr>
<td>Roots</td>
<td>6</td>
</tr>
<tr>
<td>Shower</td>
<td>7</td>
</tr>
<tr>
<td>Straw</td>
<td>8</td>
</tr>
<tr>
<td>Raft</td>
<td>9</td>
</tr>
<tr>
<td>Fish</td>
<td>10</td>
</tr>
</tbody>
</table>

Starting a discussion of a pair

I think the picture of the ______ goes with the _______ because _______.

Responding to a discussion of a pair

Group ______ said _______ and I agree with them because _______.

Or

Group ______ said _______ and I respectfully disagree with them because _______.

**What have we learned from animals?**

**Birds** have ________________________________
that allow them to ________________________________
but humans cannot do this without ____________________________.

**Elephants** have ________________________________
that allow them to ________________________________
but humans cannot do this without ____________________________.

**Fish** have ________________________________
that allow them to ________________________________
but humans cannot do this without ____________________________.

**Lily Pads** have ________________________________
that allow them to ________________________________
but humans cannot do this without ____________________________.

**Roots** have ________________________________
that allow them to ________________________________
but humans cannot do this without ____________________________.

**What have we learned from plants?**
<table>
<thead>
<tr>
<th>Group</th>
<th>Materials Used</th>
<th>Time to get to 40°C</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cotton, Shammy, Fat, Thick Felt, Thin Felt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Cotton, Shammy, Fat, Thick Felt, Thin Felt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Cotton, Shammy, Fat, Thick Felt, Thin Felt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Cotton, Shammy, Fat, Thick Felt, Thin Felt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Cotton, Shammy, Fat, Thick Felt, Thin Felt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Cotton, Shammy, Fat, Thick Felt, Thin Felt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Cotton, Shammy, Fat, Thick Felt, Thin Felt</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Use the Following Sentence Frames to Discuss How Well the Materials Functioned

**Materials**
- Shammy
- Thick Felt
- Fat
- Craft Feathers
- Thin Felt
- Cotton

**Animal Structures**
- Blubber
- Long Fur
- Outer Feathers
- Short Fur
- Skin
- Inner Feathers

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**Starting a discussion of a pair**

I think ______ which mimicked ______ worked the ______ because ______.

**Responding to a discussion of a pair**

Group ______ said ______ and I agree with them because ______.

Or

Group ______ said ______ and I respectfully disagree with them because ______.