

Science, Standard #6.4.4

Construct an argument supported by evidence that the stability of populations is affected by changes to an ecosystem. Emphasize how changes to living and nonliving components in an ecosystem affect populations in that ecosystem. Examples could include Utah ecosystems such as mountains, Great Salt Lake, wetlands, and deserts.

When Ecosystems Go Awry
 6th Grade
 Science/Language Arts/Drama
 by Linda Gold and Paul Nance

Language Arts, Writing Standard 3
 Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.

Drama, Standard #6.T.CR.6:
 Develop dialogue and actions that focus on the development and resolution of dramatic conflicts.

Objective: The students will work in groups to write and perform plays based on ecosystems that have been tampered with. They will use a food web for their ecosystem to determine what would happen if a new species were introduced into the system or if an existing species were to leave the system.

Materials:
 Make copies of the attached forms for the students to use.

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- You may choose to begin with the lesson plan on play writing. This will give the students the necessary background they need to understand the differences in writing a story and writing a play. It will also give them practice in getting information across to the audience through dialogue.
 - As a class, choose one of the attached food webs.
 - As a class, work together to fill in the attached playwriting worksheet.
 - As a class, begin writing dialogue for the beginning of the play. You do not have to write the entire play together. Do enough to model the technique of getting information across to your audience through the dialogue. If they can get the information across to the audience through dialogue, there is no need for a narrator.

- When the students are ready, break them into groups and have each group fill out the worksheet. You may choose to have each student fill one out so that everyone feels involved in the process.
- Collect the worksheets. Look them over to make sure that the decisions that have been made make sense. Suggest any changes that need to be made and turn the back to the students.
- Have the students fill in the attached story maps with the sequence of events.
- Using the story maps, have the students write their plays.
- Collect the plays and make suggestions for rewrites.
- Return the plays to the students so they can work on the rewrites.
- Give the students some time to rehearse their plays.
- Let the groups perform for each other.
- Following each performance, ask some or all of the following evaluation questions:
 - What was the problem that was introduced to their ecosystem?
 - Do you think that is a realistic problem? Why or why not?
 - How did they solve the problem?
 - Was that a realistic solution? Why or why not?
 - Can you think of any other way they may have solved the problem?
 - Tell me three things they did well in their performance.
 - What is one thing they should work on for performance? (You may wish to answer this one yourself)

When Ecosystems Go Awry Play Writing Project

Names of the people in your group:

1. _____

4. _____

2. _____

5. _____

3. _____

6. _____

The focus of a play is conflict, so we will start with the middle of the play, which begins with a problem. In theater this is often referred to as the incident of incitement. For our play, we are going to add or subtract a species from one of Utah's habitats.

What ecosystem t will you be using for your setting? _____

Are you adding or subtracting a species? _____

What species are you adding or subtracting? _____

Brainstorm the problems this could cause. List them here:

Choose one of the problems to include in your play.

In the middle of a play, the problems build and often increase. This is called the rising action. The climax of the play occurs when the problems are solved. For your play, the first attempt to solve the problem will cause a second problem. How will you attempt to solve the first problem, and what is the second problem it will cause?

How will you solve the second problem? (If your first problem is still not solved, solve that as well).

Let's go back to the beginning of the play. List the characters in your play. (If you have additional characters, list them on the back of this paper.)

1. _____

4. _____

2. _____

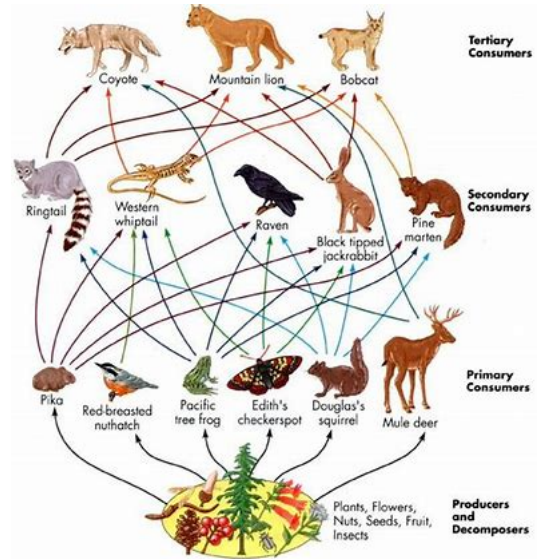
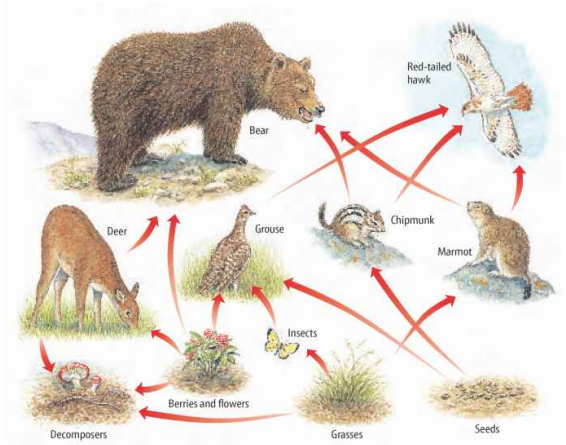
5. _____

3. _____

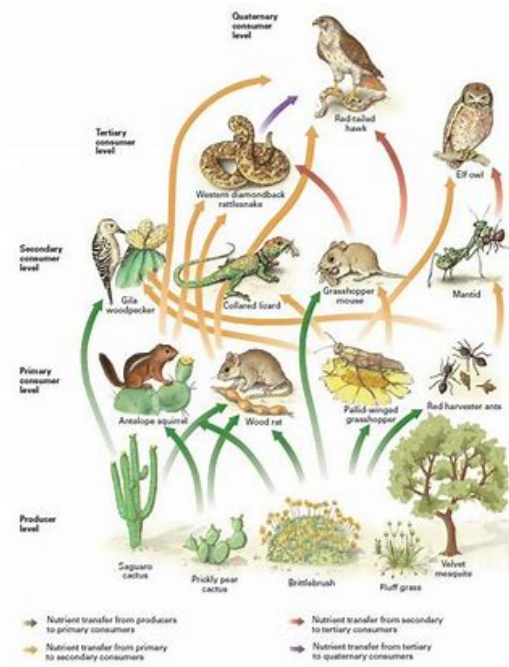
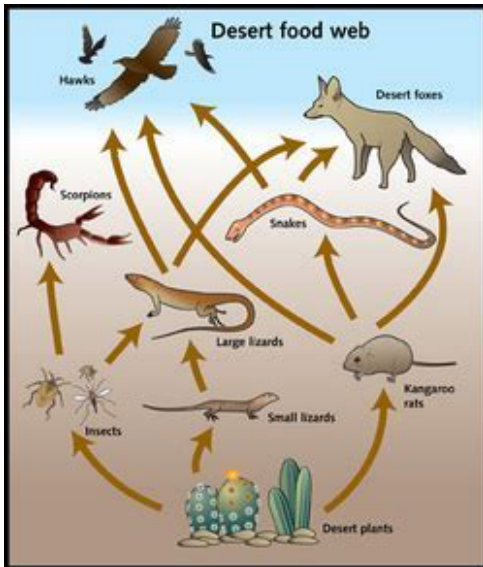
6. _____

In the beginning of a play, everything is peaceful. There are no problems and the characters are content. The audience receives pertinent information about the characters and setting. In theater, we call this the exposition. What does the audience need to know about the characters and setting?

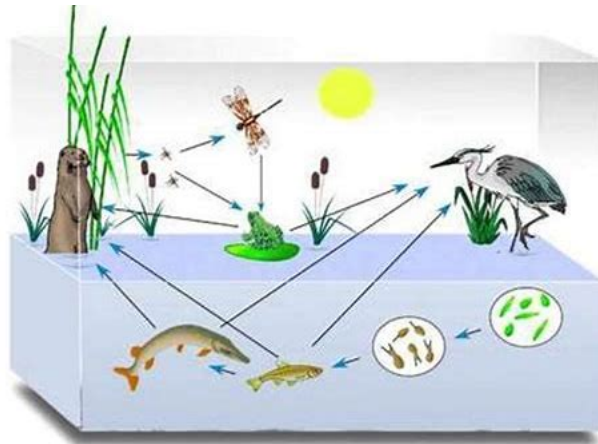
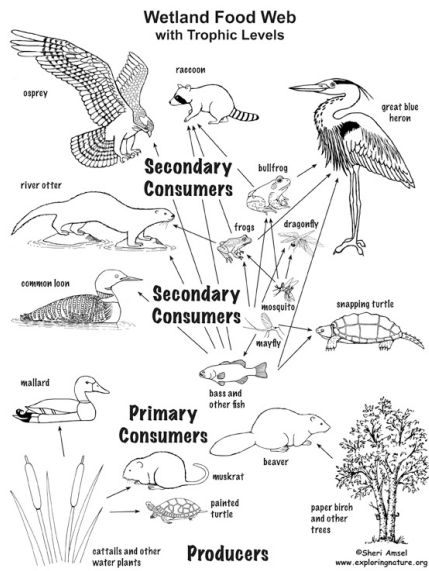
The end of the play, or resolution, wraps everything up. We are returned to a peaceful world. How will your play end?



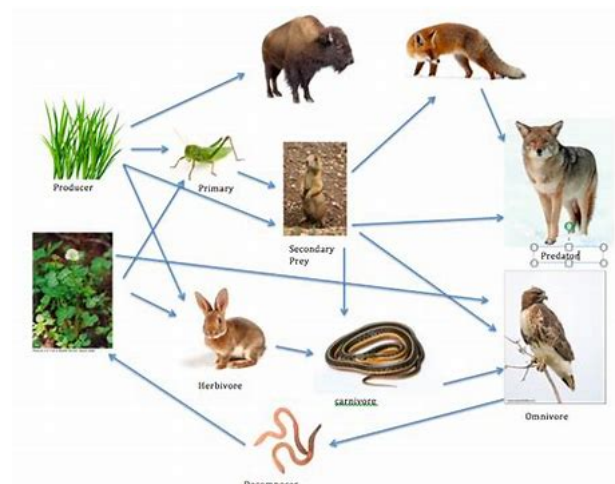
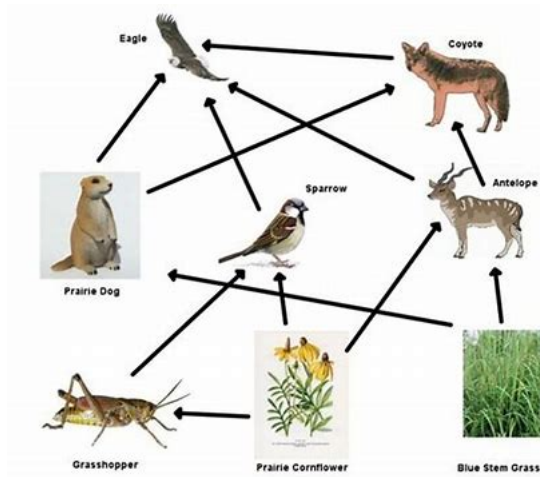
Forest Food Webs



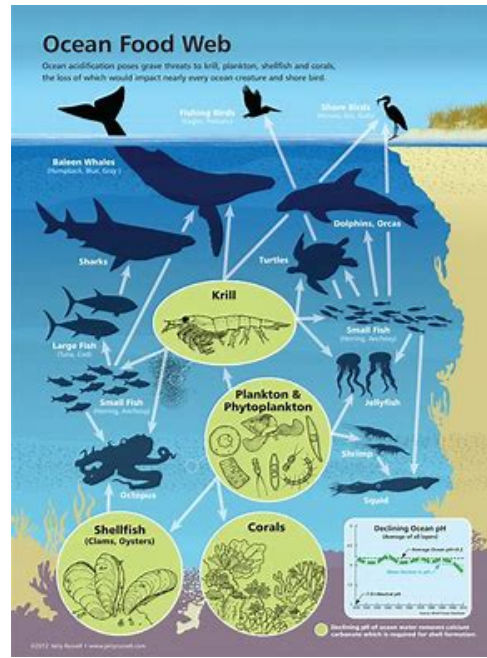
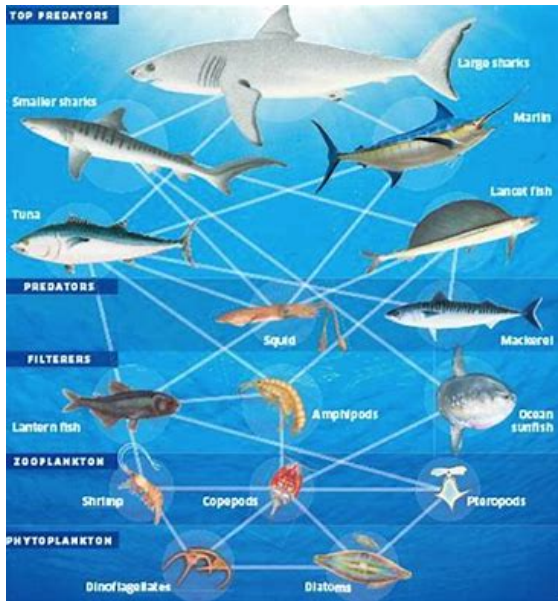
Desert Food Webs



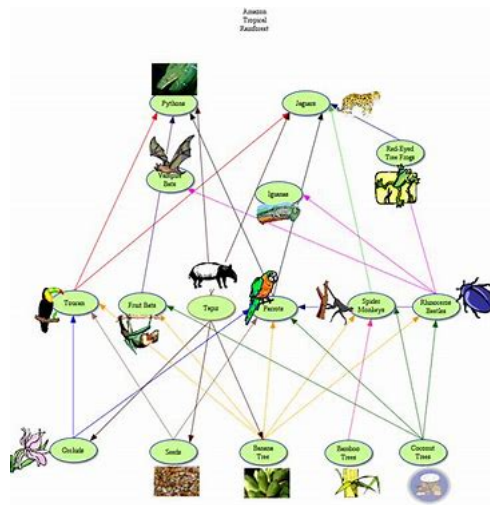
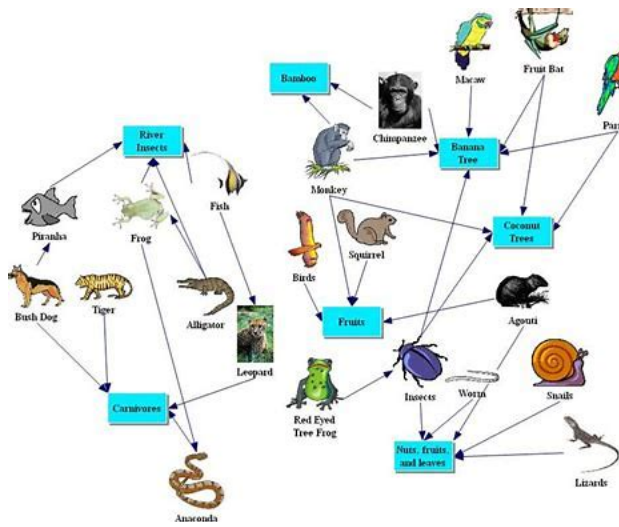
Wetland Food Webs



Prairie Food Webs



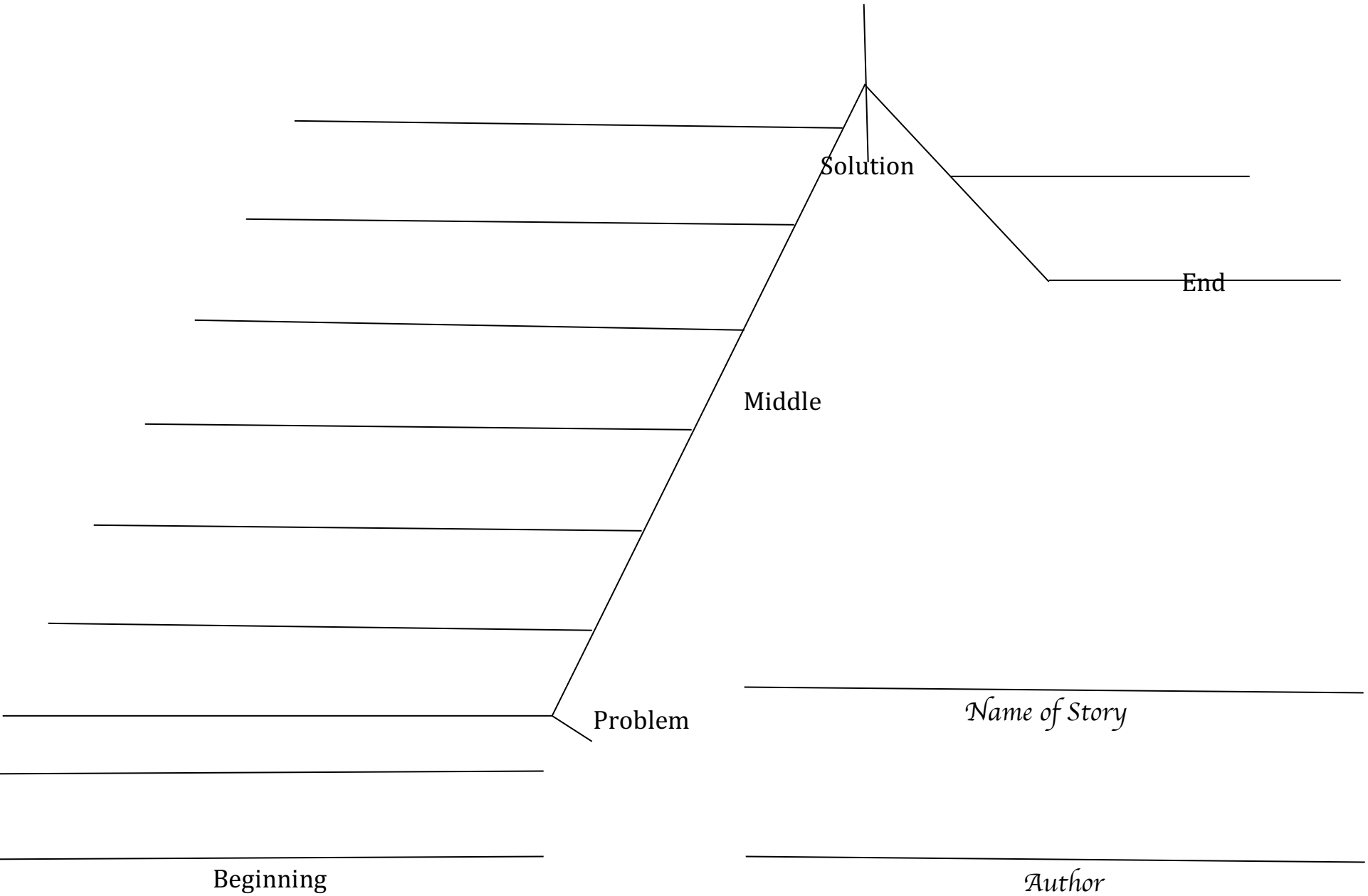
Ocean Food Webs



Tropical Rain Forest Food Web

Story Map

Storyteller: _____



Beginning

Problem

Middle

Solution

End

Name of Story

Author