

Earth System Science (ESS) CAUSE-&-EFFECT Concept Map

Name: _____

Hour: _____

Directions: Please complete the following concept map by completing each of the following requirements:

- ____ (½ point): Label each system by correctly identifying their primary characteristic: *liquid, solid, gaseous*, or *living Earth* (or *water, land, air, and life*)
- ____ (½ point): Identify all 10 interactions by drawing the remaining 6 two-way arrows in the ESS model
- ____ (1 point): Choose an ‘Event’ from your notes and label the event name on the model; label the ‘Event’ as natural, human-caused, or as both
- ____ (5 points): Using the *guiding questions*, label 5 connections (arrows) with a CAUSE-and-EFFECT description; each of the 5 labels must be described using a complete sentence and each sentence must include at least 1 *keyword*. Circle and label the cause and the effect; underline the *keyword*.
- ____ (3 points): Draw 4 images near 4 interaction descriptions (4 sentences from number 4) that illustrate the cause-and-effect relationship. Label each image as ‘natural or human-caused, subtle or sudden, short- or long-term, and positive or negative’.
- ____ (10 points): Answer the questions at the bottom of the handout, **in paragraph form**, using complete sentences. (Use the back of the handout for your response.)



For your event, why is it important to describe Earth system interactions using CAUSE-AND-EFFECT? Provide at least 2 examples. For your event, who would this be valuable to and why? Provide at least 2 examples. In your answers and examples, address some of your labels concerning (at least 2 or more): natural and/or human caused; subtle or sudden; short- and/or long-term; and positive and/or negative changes.