**Stars and the Elements**

Your task is to communicate how stars, over their lifecycle, produce elements. You have the following mediums to pick from:

Comic or Comic Book

Science Poster (note: should be very visual)

Screenplay/Storyboard for a Science Documentary or an actual Science Documentary

Science Article or News Article (note: should include graphics)

Illustrated Short Story

You will be evaluated based on the criteria below:

|  |  |  |  |
| --- | --- | --- | --- |
| **Elements** | **1** | **2** | **3** |
| **Elements in the early universe before stars** | No mention of the early universe | Talks about the early universe with no mention of elements | Talks about the early universe and shows what elements existed just after the Big Bang |
| **How elements up to iron are formed** | No mention of stars making elements | Talks about stars making elements with no mention of how | Talks about *how* stars form elements up to iron  |
| **How elements more massive than iron are produced** | No mention of elements formed beyond iron | Talks about supernova with no mention of elements | Talks about supernova and shows what elements are formed from these |
| **How a star’s mass and stage of development affect the elements it can make** | No mention of different kinds of stars and masses nor how they make different elements | Talks about different kinds of stars and their masses only OR that different stars make different elements | Talks about different kinds of stars and their masses and *how* this effects the elements they can make |
| **How we know what elements are in stars (what’s the evidence)** | No mention of light spectra | Talks about light spectra without connecting to elements in stars | Talks about light spectra and connects this to how we know about elements in stars  |
| **A specific example of fusion that can happen in stars**  | No example of fusion that can occur in stars is provided | An example of fusion is included with no mention of protons or neutrons | A specific example of fusion that can happen in stars in included that shows the conservation of protons and neutrons |
| **Product quality** | The finished product is messy and unclear | The finished product is clean and clear | The finished product is clean, clear, easily followed, and a lot of effort was put forth |

Below are some resources that you might find to be helpful:

Chart of types of stars, their lifetimes, and elements produced: https://tinyurl.com/y8eypgx3

ELEMENTary Education Comic: https://tinyurl.com/ycvv8458