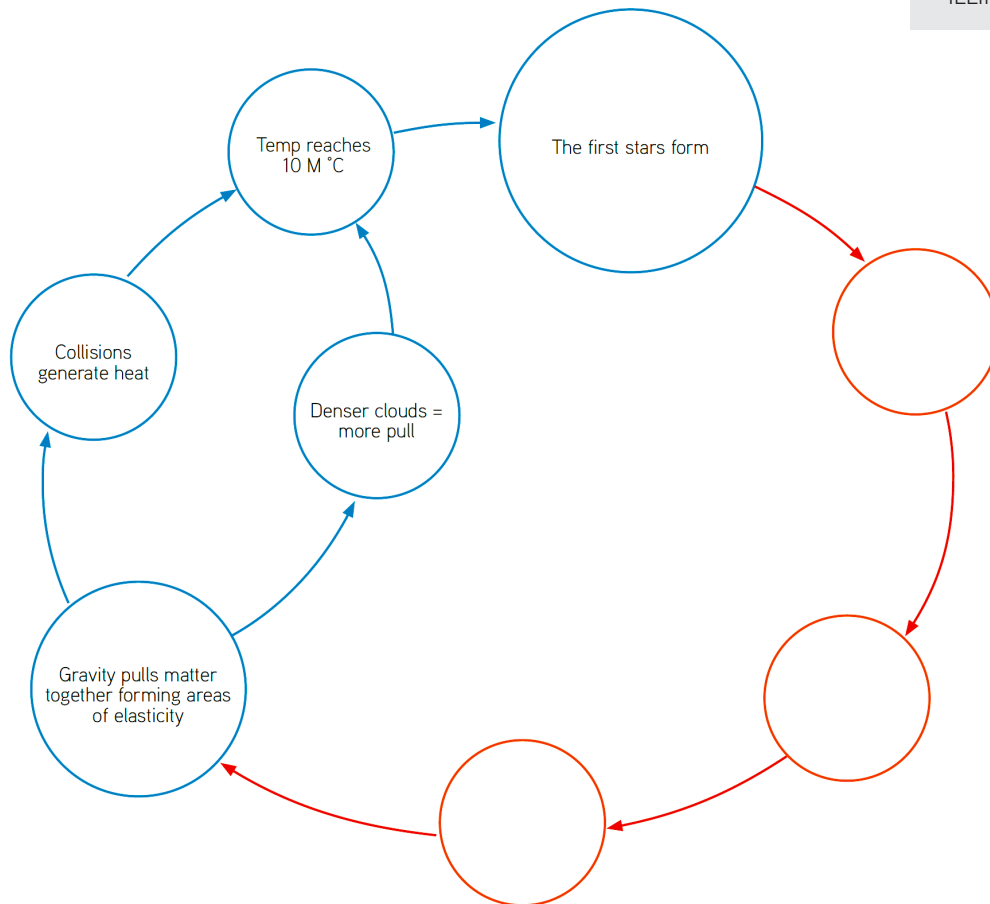




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BHP TEACHER TAKE

TACKLING CONTENT AND SKILLS WITH STAR FORMATION

Teaching students how to recognize and understand the concept of cause and effect is fairly easy when using examples they are completely familiar with, such as, "If I don't do my homework [cause], it will have a negative impact on my grade [effect]." The difficulty comes when you try to teach cause and effect when introducing new content that happens to be very complex and a challenge for sixth graders to wrap their minds around.

Some quick background on my classroom: In our district, the only time that students receive instruction in world history between kindergarten and eighth grade is during their sixth-grade year. We decided during our last curriculum adoption to go "BIG" with this experience – and make Big History our social studies curriculum. Since social studies is a required core class for all our students, we see an incredible range of students – some have IEPs, many are English language learners, and student reading levels are all over the map. I love how my sixth graders' natural sense of curiosity fits with BHP's focus on inquiry. It doesn't mean I don't make adjustments—I'm constantly thinking of ways to make BHP's hands-on activities even more hands-on, to productively channel all that sixth-grade energy!



BIG HISTORY PROJECT

One example of this is with the Understanding Cause and Consequences Part 1 & Part 2 activities in Unit 3. I spread this activity out over two days to ensure we have enough time to delve deep both on content (star formation and the life cycle of a star), and critical thinking as related to cause and effect. Day 1 of our lesson consists of a general introduction to star formation and the life cycle of stars, with students filling in graphic organizers with guiding questions as they viewed the videos, *How Were Stars Formed?* and *What Did Stars Give Us?* (I'm also always careful to have transcripts on-hand for videos, to give students another means of accessing the content.)



Star Formation Mind Maps, photo courtesy Zachary Cain.

Day 2 starts out with a quick formative assessment. I take the circles from the worksheets' causal maps and create a set of circle cut-outs representing each event. I then put students into small groups and give them the stack of eight circles, which they're instructed to put in order from start to finish. This adds an element of hands-on exploration that I love – and gets kids talking and debating about what sequence of events seems most logical! Upon completing this task and having it checked by me, groups then have 15 minutes to create a causal map representing the formation of a star and its life cycle. They're instructed to both draw and write about the event happening in each circle.

Each group is then given 1 minute to explain their causal maps to the other groups and to explain which of the pictures best represents the "triggering event" in the star formation process. (We're careful to first have a conversation about what we mean by "triggering event" – using examples we'd talked through from the first activity in the causation progression related to natural disasters.) With about 5 minutes left in class, students are then asked to complete a quick-write justifying which event in the star formation process was the "triggering event."

Overall, this two-day lesson works out very well for teaching the content of star formation and the life cycle of a star, as well as developing the skill of understanding cause and effect. Moreover, the activities allow all students to contribute to the conversation and the learning, without being dominated by just one or two students in the group. When I teach this activity next year, I might arrange things differently. Two videos in one day is a lot for sixth graders to absorb! I might focus on both the video and causal map from Part 1 on Day 1, and then have students add to their maps (after watching the second video) on Day 2.