

# The Science of *His Dark Materials*

Hello, curiosity-filled explorers of interesting ideas (and others). This term, to help deepen our understanding of Philip Pullman's amazing *His Dark Materials* series, you are going to work in small groups to explore scientific topics related to the books. There will be three phases: research, preparation, and presentation. The presentation will take the form of teaching the class about your topics. Through all three phases, you will also be honing your ability to build and nurture a respectful, positive, and inclusive environment in your group, as a part of our work in Career Education.

To that end, your first task will be to choose a role to play within your group, to help lead you toward group success.

## Jobs

### Chairperson

#### *Responsibilities:*

- Making sure that the group is ready for the presentation
- Helping ensure everyone is able to take pride in their work
- Leading group discussions and helping make sure everyone in your group speaks and is listened to whenever you meet as a group, whether in person or online during after-school or weekend meetings
- Coordinating sharing of information between group members, as needed

### Diplomat

#### *Responsibilities:*

- Finding ways to keep the peace within the group
- Helping find ways to settle any disagreements that arise
- Ensuring everyone in your group feels respected and included
- Helping everyone feel good about their contributions and fostering a positive attitude toward the work

### Deep Thinker

#### *Responsibilities*

- Ensuring each group member is doing their best to dig below the surface in their research, going beyond collecting facts to explore the why and how of their topics
- Helping others find ways to bring depth to their work when they are stuck
- Ensuring the group strives toward depth and complexity in the presentation

## Visionary

### *Responsibilities:*

- Generating creative ideas about how to approach the visual aspect of the presentation
- Helping your group achieve clarity of communication for the visual aspect of the presentation
- Working with group members to help them feel confident in the visual aspect of their work
- Coordinating how your group will support each other with the visual aspects of the presentation

Embrace your job. Find respectful ways of engaging with others. Use your job title as an excuse to actively engage with all group members (you're not being weird; you're just doing your job!). Remember: in group projects you have a responsibility to yourself, but you also have a responsibility to the group as a whole.

## Phase One—Research

You will have a relatively short amount of time to conduct your research, so that means you need to be focused.

Take the feedback you received on your Science research and your Socials presentations (remember those? So long ago...) and use it to take steps forward with the work.

The criteria for notetaking remains basically the same:

- do you have a system of organization for your notes? Can you find information quickly and when you need it? Does your system help organize your thinking and promote clarity and connection?
- have you recorded ideas in your own words?
- are you using the fewest possible words to capture the essence of the information you are trying to capture?
- have you challenged yourself to dig deep and be thorough in your approach?
- have you taken steps to help yourself fully understand the information you are exploring?
- have you kept track of your sources?

However, we will be adding one more piece of criteria:

- are you looking for connections to the world(s) of *His Dark Materials*?

You are highly encouraged to think and look back on the feedback you received on your brain part research in Term One and actively incorporate that feedback into this next attempt—to not just *think* (once or twice) about it, but to actually make those adjustments. If you can't remember the feedback, please feel free to come and talk to me.

I will check in with you during the research phase of the project to see how you are doing in this area.

## Phase Two – Preparation

Once we have engaged in research, your group will work together to prepare for your presentation.

Think TedTalk.

Each group will have up to twenty minutes (for groups of four) for their presentations; the time needs to be shared equally among all group members. Please leave at least a few minutes at the end of your presentation for a Q & A with the audience.

The goal is to share your ideas clearly, so that the class can benefit from the exploration you have engaged in. Help us understand what is fascinating about these topics. Help us see this with depth and complexity. Help us connect these ideas to the books.

There is a required visual element to the presentation; however, you will be limited to whiteboard markers and the whiteboard at the front of the room, the whiteboard behind the Tower o' Stuff, and up to two of the large freestanding whiteboards. You can also use your small whiteboards if you so wish.

You may preset some of the work on the whiteboards, but a required element is that some of the visuals need to be created dynamically, in the moment—you can do this yourself while you talk, or your groupmates can do it for you.

As always, with visuals, think: how does this help support my oral content? How does it help clarify or focus the audience's listening without competing with my oral delivery?

I will be sharing some ideas/resources with you about how you might approach this part of the presentation.

The big idea is clarity of visual and oral communication.

Work together as a group to help ensure that the least confident person feels confident on presentation day.

Help each other practice so that you can all take steps forward based on previous feedback on the oral and physical aspects of public presentation.

### Phase Three – Presentation

We will use our Oral language rubric for assessment of the oral and physical aspects of the presentation, as well as your listening skills as an audience member.

You will also be individually assessed on:

- Clarity of visual communication
- Incorporation and communication of Depth and Complexity
- Connections to the *His Dark Materials* series

After your presentation, you will write a brief reflection on how you did with your work as a group member and with your particular job. This, along with my observations during group work times, will be a part of your assessment in Career Education.

If you are wanting to challenge yourselves, you might be thinking about how you function as a group to make your presentation a cohesive whole, with flow from one topic and one speaker to the next, and with connections between topics.

At the end of each presentation, there will be a brief Question and Answer period with the audience.