

X-Ray Crystallography

Crystal Structure Research Project

Name:

Purpose:

- Research and learn about fundamental concepts related to x-ray crystallography
- Create a PowerPoint presentation and movie to communicate your results

IMPROPERLY SAVED ITEMS WILL BE DISCARDED WITHOUT BEING SCORED.

➤ Saving instructions for PowerPoint:

- ✓ Save-As “PowerPoint 97-2003 Presentation”
- ✓ Format - period_xray_last name first initial (ex. 4_xray_haydenm)
- ✓ Save all drafts in “I” drive.
- ✓ Submit final draft by copying it to “STU_DROP_FOLDER” in “V” drive.

Specifications

Slide 1

- Title, name, and period

Slide 2

- Statement of purpose
- Definition of x-ray crystallography with 1 cited image

Slide 3

- William Henry Bragg and William Lawrence Bragg
 - ✓ What did they study? Why are they famous?
 - ✓ Use MS Paint to draw a labeled schematic diagram of an x-ray spectrometer
 - ✓ Include 1 cited image of an x-ray spectrometer

Slide 4

- Bragg’s law
 - ✓ Explain Bragg’s law using a cited diagram or one that you create in MS Paint
 - ✓ Indicate and explain the equation

Slide 5

- Crystal Structure
 - ✓ Define unit cell
 - ✓ Provide cited images of various types of unit cells

Slide 6

- Crystallography
 - ✓ Explain the basics behind how a diffractometer works
 - ✓ Include a cited, labeled diagram

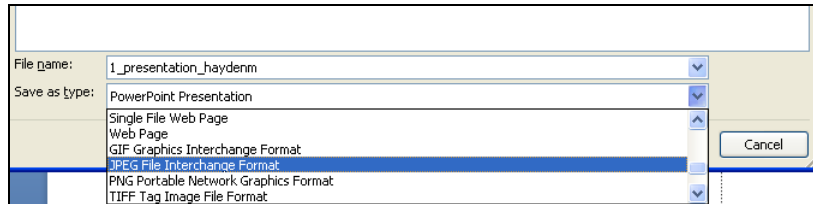
Other requirements

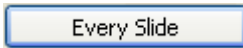
1. Be sure to cite any information / images that you use.
2. Limit your information to 6 slides.
3. Avoid using overwhelming amounts of information in your slides. Use concise statements that can be read from a distance. Elaborate when you narrate the movie.

Windows Movie Maker Instructions



Preparing PowerPoint

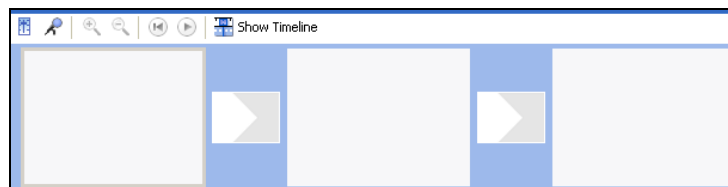
1. Save your PowerPoint presentation in your I-drive and/or flash drive according to the instructions provided.
2. Save your PowerPoint presentation **AGAIN**, but make each slide an image:
 - Save As- “JPEG File Interchange Format





- Choose 
- Click Ok

Creating a Video with Movie Maker

1. Open program-  Windows Movie Maker
2. Under **1. Capture Video** , click “Import Pictures”
3. Drag slides into the storyboard at the bottom of the screen.


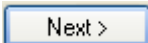
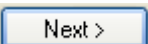


4. Add transitions and effects by expanding the **2. Edit Movie**  menu.
5. Click  Show Timeline to add sound and alter the timing.

Saving the Movie

While editing- Save frequently (CNTL+S). Use the same name that you used for PowerPoint.

When finished:

- Choose “Save to my computer” in the **3. Finish Movie**  menu.
- Use the same name and save on your flash disk (or I-drive). Click 
- Click  again.
- Copy to I-drive and/or flash drive as needed.