

Lesson Plan overview for Drafting Curriculum

Unit .pptx files are provided for editing purposes so teachers can customize content

Optional and Additional activities are not included in Time Estimate

What is Drafting? – Time Estimate 15 min

No Materials needed

Activity:

“What is Drafting” Powerpoint lecture link 10:15 (contains additional YouTube video)

https://mediaspace.minnstate.edu/media/What+is+DraftingF/1_gw110ftw

What is Drafting.pptx

Additional activities: host a guest speaker related to drafting, tour a business related to drafting

Measuring – Time Estimate 50 min

Materials:

Rulers

Pencils

Print and cut Measuring cheatsheet.pdf for each student

Measuring cheatsheet.pdf

Print Measuring formative exercise.pdf for each student

Measuring formative exercise.pdf

Print Measuring worksheet.pdf for each student

Measuring worksheet.pdf

Computers for rulergame.net

Activity:

“Measuring” Powerpoint lecture link 8:36

https://mediaspace.minnstate.edu/media/Measuring/1_60a5w5gh

Measuring.pptx

Refer to Measuring cheatsheet.pdf during lecture and formative exercise, then as needed

Have students try the formative exercise – approx. 10 min

Have students complete the Measuring worksheet – approx. 15 min

Optional: have students measure various objects in the classroom

Review rulergame.net with students – 5 min

Rulergame.net - as time allows, will be a good review tool as well

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Orthographic Projection – Time Estimate 30 min

Materials:

Print paper box-model.pdf for each student

Paper box.pdf

scissors, tape or glue sticks, pencil to label sides

Optional: paper for sketching views of classroom objects

Activity:

“Understanding Orthographic projection” Powerpoint lecture link 7:26 (contains additional YouTube video)

https://mediaspace.minnstate.edu/media/Orthographic+Projection/1_ey82qmkd

Understanding Orthographic projection.pptx

Paper box exercise – approx. 15 min

Optional: students can sketch the top, front, and side views of objects around the classroom

Line Types – Time Estimate 15 min

No Materials needed

Activity:

“Line Types” Powerpoint lecture link 12:40

https://mediaspace.minnstate.edu/media/Line+Types/1_4fcbugvq

Line Types.pptx

Sketching – Time Estimate 30 min overview, does not drawing time for each pdf handout

Materials:

1/4” graph paper for each student

L Block.pdf

A-B.pdf

C-D.pdf

E-F.pdf

G-H.pdf

I.pdf

Blocks to help reinforce concepts

Ruler and Circle template for handout I

Pencils

Activity:

“Sketching” Powerpoint lecture link 5:19

https://mediaspace.minnstate.edu/media/Sketching/1_8t091yum

Sketching.pptx

Refer to L Block.pdf and A-B.pdf during the lecture

Students measure and draw orthographic views from handouts