

Chess Sets

Shared by: Sarah Leadbeater, Newburyport High School

Technology used	Experience level required
3D Printer	beginner
3D modeling software	intermediate

Grade Level (of this example): 1-12

Content Standards (of this example): Defined by teacher

Summary of Project: Students design and make 3D chess pieces to create a set of unique pieces with a common theme. The chess set can be made using almost any process and material combination, like common general craft materials, laser cut pieces which fit together, 3D printed pieces, or even 3D printed molds that will be used to create pieces out of another material such as cookie dough or modelling clay. Students can work individually or in a group to develop the concept and details of their set. They can present their finished work to the class and even take turns playing each others' sets.

Possible content explorations:

Social Studies - pieces representing important personalities from a given era, geographic region, or movement

Life sciences - members of an ecosystem, components of a larger organism, multiple members of a taxon

ELA - characters from a story, writers that share common eras/genres/themes

Math - pieces representing mathematical ideas, shapes, theorems, etc.

Gamify everything! Have students create alternate moves for each piece that reflect something about its characteristics, develop game strategies



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