# Graphic Medium in 3 dimensions

*Collaborative Classroom Grant Application*

## *Riverside Middle School*


## *Robert Wennerberg*

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# Application Form

## *Report Fields*

### Project Name*

Name of Project

Graphic Medium in 3 dimensions

### Amount Requested

Amount Requested

$3,500.00

### Grade Level

Program Area of Request

Middle School (7-8)

### Primary Subject Area

Please choose the primary subject area.

Technology

### School

Please select your school.

Riverside Middle School

### Applicants*

Please list the educators collaborating on this grant.

Robert Wennerberg (Technology Education)
Paul Curnow (Health)
Barb Knutson (English)
Scott Haffey (Computer Applications, World of Work)
Karla Stenberg (Art)

### Number of Students Served

Please enter the number of students that will be served by this grant.

350

### Project Cost

What is the total cost of your project?

3738

## Statement of Need

Please describe the need for this project. For example, how will this project impact student learning?

The design process up to this point has been paper and pencil, or the computer. The 3-D printer would bring the design process to life and would expose the students to how things are done in the real world. I would show real world applications and examples and it would spark the imagination of the students.

## Primary Goal

Please describe the primary goal of the project and how it blends with School District 2 goals and curriculum.

3-D design and protyping is the backbone of invention and innovation. This would help prepare the students to compete in our global community and make them a valued member of Billings and the world. It would expose them to Science concepts, Mathematics concepts, problem solving, different applications of the computers, and Technology Education (the application of all these subjects).

## Project Description

Briefly identify the major activities and materials involved in your project.

I want to collaborate with the Health, English, Art and Computer Applications departments so that their students can be exposed to this important piece of technology. The English teacher would like to use it to create visuals related to the literature they are reading. If the students in Health class are talking about bones, joints, or the eye, they could pair up with my students and create a miniature body part and print it on the 3-D printer.

## Professional Development

If your project includes professional development how will it improve student performance?

N/A

## Project Timeline

When will you implement your project?

Because the students are already using 3-D design software, implementation will be immediate. The printer is plug-n-go and does not require assmebly.

## Plan for Evaluation

How will you evaluate student outcomes for your project?

Students will be evaluated on the completion of a 3-dimensional object and their ability to convert files to their proper formats. They will also be evaluated on their problem solving and creativity skills used to create and print the object. Their final evaluation will be on their ability to write and recall the steps and the procedures they did to create and print an object in a one page report.

## Project Budget

Please explain how the funds from this grant will be spent to support your project goal. You can either type or upload a project budget to show how funds will be used. Please identify other funding sources if applicable.

Knutson.docx
$2899 for the MakerBot 3D Printer (5th Generation)
$839 for shipping insurance and PLA Filament

$3500 from this grant
$238 from my budget or out of my pocket

## Supervisor Approval*

I have received approval from my supervisor to apply for this grant.

yes

## Attachment 1

Please attach any photos, pages from catalogs, or other documents below. This is completely optional.

bot.jpg

## Attachment 2

Stenberg.docx

## Attachment 3

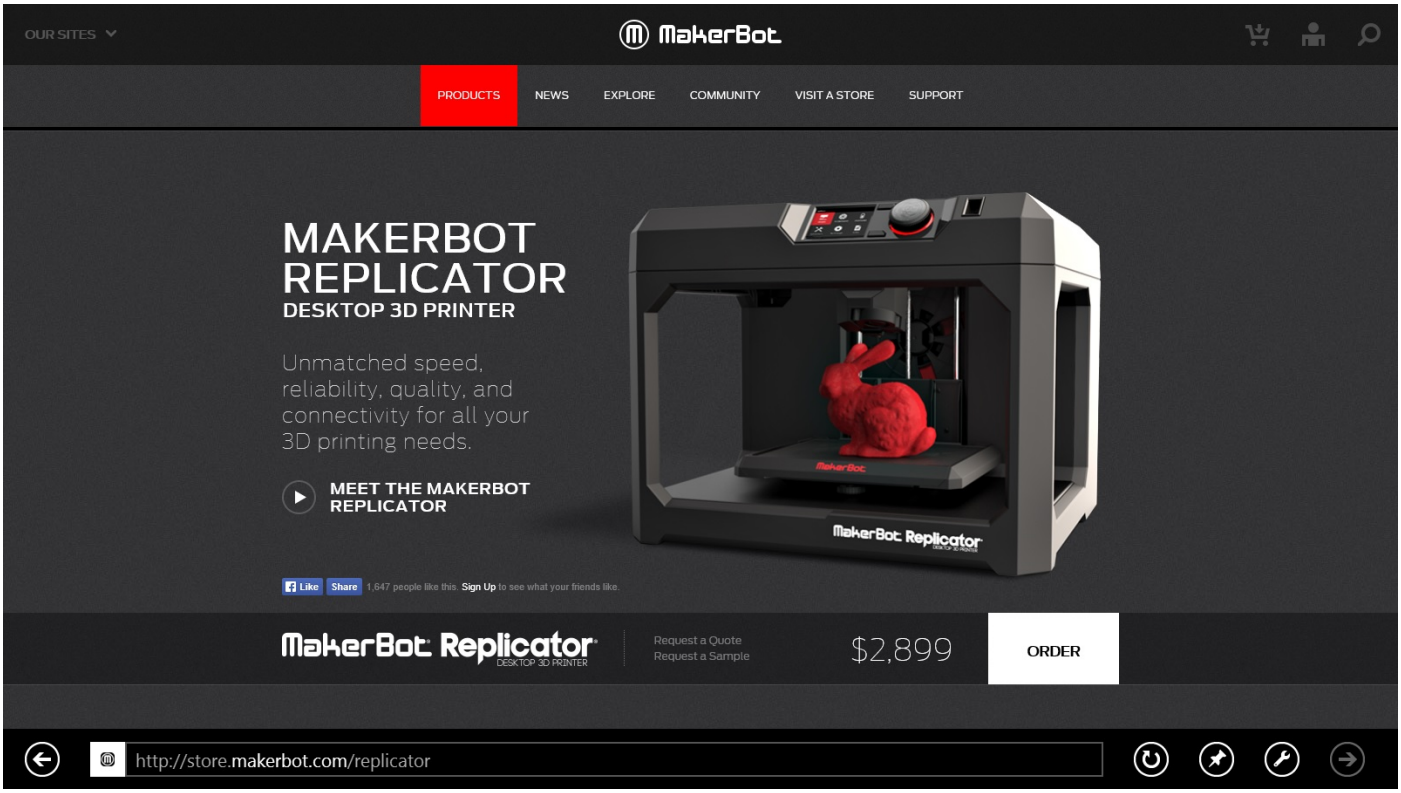
# File Attachment Summary

### *Applicant File Uploads*

- Knutson.docx
- bot.jpg
- Stenberg.docx

Dear Sir or Mam,

I am writing this in regards to the printer that prints 3d objects. My English class is reading stories and poems all the time. I would like to have the student's use those stories to create things they think of when they hear and read the stories. It would help with the students who are visual learners. They could draw out what comes to mind when hearing the story of poem and then I could pair them up with Mr. Wennerberg's class and have them create what they are thinking of. It would be a good way to have them see the technology and how it works and to motivate them for the next story or poem.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Request a Sample
$2,899
ORDER
http://store.makerbot.com/replicator

To whom it may concern,

As an art teacher, I am always looking for ways to stay up to date on technology and ways to motivate my students in the area of Art. I think a 3d printer would help do that. The students could work on a three dimensional character with the computer and then actually print it out to take home or use for other activities or classes. I also do a Claymation activity and this would enhance that. The kids could use this program to create props for their Claymation show. They could even invent new toys. As I get better with the software and the printer, I think there could be other uses I have not even thought of. Thank you for your time.

Karla Stenberg – Art Teacher – Riverside Middle School