

# Sherlock Gnomes

## Engineering and Animation, 8th Grade Teacher Guide

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### Objective

Students will be able to analyze the 5-step animation process to generate systems and tools to improve its efficiency.

### Introduction

When creating an animated sequence, movie studios use a 5-step process that transforms an idea into a fully-realized animation. The Production Team consists of a group of artists working through each of the 5 steps: Storyboarding, Blocking, Animation, Pre-Lighting, and Final Lighting. This process can go on for 2-3 years when artists are working on a feature film. While each step happens sequentially, there may be times when the artists have to re-work scenes or develop new ones, which requires a return to the beginning steps of the process. Often, the Marketing Team will work with the Production Team to identify the first complete scene that can be used in a process called "Market Research," where the Marketing Team shows the scene to many people to determine the interest in the movie. Based on their feedback, the Marketing Team will work with the Production Team to revise parts of the movie.

### Activity

*This activity will lead students to exercise higher-order thinking skills by leading them through a series of scaffolded activities.*

**Remember/Understand:** Distribute Worksheet 8-A and play "Animating Sherlock Gnomes" video for students, pausing where necessary. As each step is introduced, have students write in the name for each and explain its role in the overall animation process.

*Formative Assessment:* Ask students to hold up fingers in response to questions you ask about the 5-step process. "How many steps are in the animation process?" "During what step do the artists start to add light?"

**Analyze:** Ask students the following questions from the last section on Worksheet 8-A. Have the students answer the questions in writing, in a small-group discussion, or in a whole-group discussion.

**Analyze/Evaluate:** Read the prompt from the top of Worksheet 8-B aloud. Since making movies is a business, having an efficient production process ensures that the movie makes money. Abandoning the 5-step process may increase efficiency but it may also have negative effects, including: employee dissatisfaction, a reduced quality of the final product, a higher overall cost, etc.

Have the students make a list of pros and cons for the new system where all of the artists work in one large team.



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**Create:** Instruct students to create their own system for animating *Sherlock Gnomes*. Challenge them to think of new ways that artists can work together and work on tasks simultaneously. Have them consider the organization of this large group of artists-- who is in charge and how do they manage the team? Make sure they do not forget about the issues they listed in their cons list and that they think of ways to creatively address the problems on the list.

After students have created their plans, conduct a "pitch meeting" where students have to convince you, the President of Paramount, that their plan is worth adopting.

*Summative Assessment:* Evaluate student work to determine if they exceed, meet, or approach standards. Implement the suggestions to group students and expand the lesson, if you wish.

**Exceeds Standards:** Plan capitalizes on the pros of working as one large team while creatively addressing the cons. Plan is complete and creates a coherent and compelling argument for its adoption.

*Challenge these students to research movie productions and develop a system that streamlines all of their divisions (Casting, Development, Market Research, Merchandising, Publicity, etc.)*

**Meets Standards:** Plan addresses the pros and cons but is not creatively adjusted to these items. Plan has some gaps and/or does not create a full argument for its adoption.

*Ask these students to incorporate ideas from other presentations into their own plans. Challenge them to consider the specific needs of the movie studio and adjust their presentation to win over the President of Paramount.*

**Approaching Standards:** Plan does not address pros and cons, or if it does, it does so ineffectively. The plan has many gaps and/or does not argue for its adoption.

*Tell students that their school is considering getting rid of individual classes and is instead adopting an "open campus" system. Discuss this with them and help them create a list of pros and cons about this system. Ask them to select one item from the con list and have them come up with 3 ideas that could solve the problem (provide them with guidance if necessary).*

## Duration

Introduction and discussion, 30 minutes  
Student work time, 1 hour (may be assigned for homework)  
Student presentations, 1 hour

## Standards

**Next Generation Science Standards**  
6-8 ETS1-1

**National Core Arts Standards**  
MA:Cr.2.1.8

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**Differentiation**

Advanced students can be asked to create several plans that can be presented to their boss. Have the students create back-up plans should something go wrong (steps take longer than expected, the movie goes over budget, etc.).

Beginning students can be provided with a sample pro and con along with an idea for how to use them in their plan.

**Vocabulary****Tier 2**

Animate

**Tier 3**

Production Team

Marketing Team

Market Research

Pitch Meeting

# Sherlock Gnomes

Name \_\_\_\_\_

## Engineering and Animation, Worksheet 8-A

Name each of the steps of the animation process and describe its role in the process.

step 1

step 2

step 3

step 4

step 5

Below is the total cost and time each step requires. Why do you think each step costs that much money and takes that much time?

8 weeks  
\$1,200

6 weeks  
\$1,800

6 weeks  
\$2,400

6 weeks  
\$1,200

2 weeks  
\$600

Why do you think the animation process is laid out in these 5 steps? How does creating separate tasks affect the way people work within their own team? How does it affect the way they work with people from other teams?



# Sherlock Gnomes

Name \_\_\_\_\_

## Engineering and Animation, Worksheet 8-B

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You have been named the Director of Production for *Sherlock Gnomes* and have decided to abandon the 5-step structure and instead have all of the artists work in one large team. Evaluate the pros and cons of this idea.

pros

cons

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Using your knowledge of the animation process and the pros and cons listed above, create a plan for completing *Sherlock Gnomes* with one large team of artists. Explain in detail how your system will lead to a more entertaining and creative movie. Also explain how your plan will result in a faster process, a cheaper process, and/or a happier staff of artists. You will be presenting your plan to your boss, the President of Paramount. Think about the specific topics you can include in your presentation that will convince your boss this is a good idea.

