



Name: \_\_\_\_\_

My Animation Apprentice Team:

## ANIMATION ACTIVE LEARNING LOG

As Animation Apprentices, you are to discover as much as you can about animation: how it developed, how different types of animation work, and what parts of the animation process interest you. At the end, you can decide what animation specialty you would enjoy.

### HISTORY OF ANIMATION

#### **Praxinoscope/Mutoscope**

Which is the best explanation of how animation works? Define both terms and the best one. ★

Persistence of vision – *Your eye holds on to flashing images slightly longer than they are visible, and blends them into a moving image.*

★ Apparent Motion – *When a series of slightly different images flashes quickly in front of your eyes with a break in-between each image, your brain blends the still images together, creating the illusion of motion.*

### ANIMATION STUDIO

#### **Animation Process**

Some people say, "No matter what method is used (drawing by hand, cel, stop-motion or computer), an animation team goes through the same basic steps to create an animation."

Do you agree or disagree? (Circle one.) I agree I disagree

What information supports your opinion?

*[Students should support their opinions with information from the exhibit, whether or not they agree with the statement. See Answer Page for a list of steps in the animation process from the exhibit and further discussion.]*

#### **Scaling Up and Down**

As you use a pantograph to draw an image on the screen, what do you notice about the size of the new image? (Hint: Use the stencil or another object to measure the height, width or a line of the image drawn.)

*[The image on the screen is twice the height or width of the original.]*

Why did animators use pantographs?

*[Animators used pantographs to reduce, enlarge or copy images.]*

#### **Frames per Second**

What's the lowest number of frames per second that lets the red square move smoothly?

24\*

Now, what do you see when you decrease the frames per second to ½ of that number (or 12\* frames per second)?

*[\* Individual answers may vary]*

*[The square looks bumpy as it moves and columns of red lights can be seen.]*

What happens at an even slower rate? \_\_\_\_\_ frames per second

*[Square seems to move left or right, one column of lights at a time.]*

## **ART IN MOTION**

### **Character Construction**

Sketch *Mac* here:

### **Careers in Animation**

Select one of five stations in exhibit...

Who: *[See Answer Page]*

Job:

Skills needed:

I chose this animator because

...

What shapes do you use to draw *Mac*?

*[2 rounded squares, 3 circles, 2 triangles, 2 rectangles]*

How would *you* use those shapes to make a character? Sketch it.

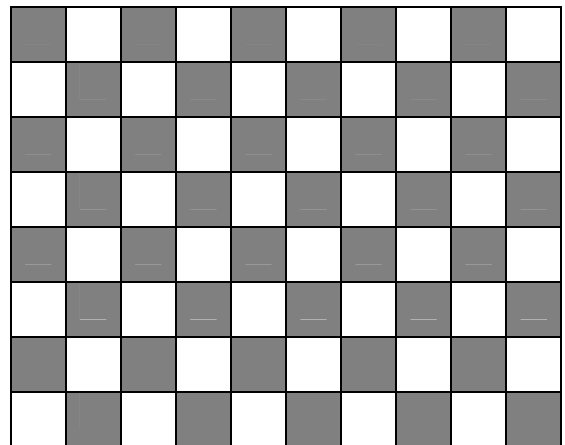
### **Planning the Action**

What path of action would you create?

As an Animation Team, use the grid to design a path of action you and your team will do inside "*Foster's Home for Imaginary Friends*."

What will your group of "*Imaginary Friends*" do with your 14 frames? Label the sequence (order) of moves, make a code for the action (ex: standing, kneeling, jumping, waving, etc.) Be safe and have fun!

*[Paths of action will vary.]*



Why is planning a path of action important?

*[Planning a path of action ahead of time helps the animator keep track of where the objects are and where they need to go, producing smoother, more realistic movement.]*

### **Character Construction, Cel Animation, Stop-Motion, and Computer Animation**

After discovering how all these animation methods work, create a stop-motion or computer animation.

Materials:

- camera     objects: \_\_\_\_\_  
 computer

Idea and Storyline:

*(What is the idea of your animation? Who are the characters?)*

Storyboard: *(What is the order of the action? Draw at least 3 key frames.)*

How would creating the same animation be different if you had used...

... hand-drawn pictures? *[every part of the animation is drawn by hand]*

... cels? *[painted backgrounds and figures can be reused to make different scenes, saving some time and effort]*

... stop-motion animation/computer animation?

*[students should describe the method they did not use stop-motion – slight changes in the arrangement of 3-D objects are photographed*

*computer – backgrounds and figures are digital; in-between frames and effects can be done by the computer]*

### **SCIENCE LABORATORY**

#### **Animation in Science**

Animation is used in many fields of science. Which one surprised you the most?

How can animation be used in that field?

*[See Answer Page]*

### **SOUND AND STAGE**

#### **Foley Room**

What are two objects you recognize? How are they used in the animation?

*[See Answer Page]*

☆ Which animation specialty would you choose? Why?

### **CARTOON MUSEUM**

Who is your favorite character? Why?

Which characters do your teacher, chaperone or adult remember?

## ANSWER PAGE

### ANIMATION STUDIO

#### **Animation Process** – Steps of Animation

1. Discuss an Idea
2. Write Storylines and Scripts
3. Design Characters
4. Create a Storyboard – Illustrate/Order Important Scenes
5. Record Voices
6. Create Animatic (Moving Storyboard)
7. Create Key and In-Between Drawings – Show Extreme Action
8. Create a Test Animation – In Cel Animation, Photograph Cels
9. Create Backgrounds – In Cel Animation, Draw and Paint
10. Transfer Key and In-Between Scenes to Cels
11. Photograph Cels
12. Create Sound Effects (Foley Artist)
13. Add Music
14. Final Soundtrack – Combine Voice, Sound, Music

*Note: All animators go through most of the steps listed, regardless of the method used. This question can be used for class discussion, allowing students to analyze information, form reasoned opinions and discuss alternate views.*

#### **Careers in Animation**

*Note: Items listed as "skills needed" are found in the "subjects to study" segments and throughout the profile.*

*Genndy Tartakovsky, Producer/Director*

*Skills: Drawing, Acting, Film, Art*

*Van Partible, Producer/Creator of Johnny Bravo*

*Skills: Writing, Timing, Animation, Psychology*

*Lauren Faust, Producer/Writer/Storyboard Artist*

*Skills: Art, Writing, Literature*

*Chris Staples, Technical Director*

*Skills: Computer, Animation, Production*

*Candi Milo, Voice Artist*

*Skills: Reading and Speaking in Front of People, Acting, Communication, Voice, Life, Making Own Characters*

### SCIENCE LABORATORY

#### **Animation in Science**

##### Field of Science

*Genetics –*

*Space –*

*Paleontology –*

*Medicine –*

*Archeology –*

##### Uses of Animation

*Changes in speed or size – show how proteins are made from DNA*

*Plan future events – Mars Rover Launch*

*Visualize prehistoric creatures, their environment and behavior*

*Time lapse – show loss of gray matter*

*Visualize ancient cities – show how buildings were built*

### SOUND AND STAGE

#### **The Foley Room**

##### Object

*Tarp*

*Metal can*

*Hard surface*

*Electric toothbrush*

*Plastic board*

*Hotel bell*

*Xylophone*

##### Use in Animation

*Scrunching paper*

*Paper hitting trash*

*Tapping finger*

*Buzzing fly*

*Thumping fist*

*Great idea*

*Dancing fly*



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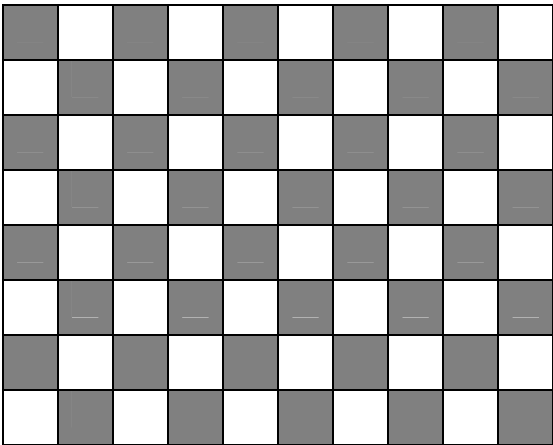
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