



This section provides information and support to help educators integrate stop-motion animation, including the "how to" behind the instructional lessons. Refer to the video clips featured on the **StopMoStudio Playlist**.

The seven lessons on this website have been designed for an Intermediate (grades 7-9) Art Curriculum. However, animation can be integrated in all subject areas. We recommend that you read the Educator's Strategy Guide first. It has been specifically devised to help educators understand how stop-motion animation can be easily adapted to accommodate different age groups and implemented across the curriculum. A technology teacher may want to integrate stop-motion animation as an activity for students to complete, or teachers may want to team up and create an interdisciplinary learning activity that meets a number of learning objectives, across multiple subject areas. For example, a social studies teacher may want to collaborate with the art or technology teacher. The Educator's Strategy Guide provides examples of stop-motion animation for each subject area.

# **Steps for Educators**

Suggested workflow in using the online content:

- Watch the clips (one, a couple, or all in one visit);
- Choose a lesson plan related to what your pupils are studying in class (environment, bullying, art, students with different abilities, racism, etc.);
- Download Lesson Plans 1 through 7, including hands-on classroom activities using the animation storyboard, how to create a flip book, information about required materials, film discussion questions and much more;
- Watch and discuss NFB films that use similar techniques;
- · Create films with your students.
- Share your comments with us by visiting our nfb. ca/education blog.





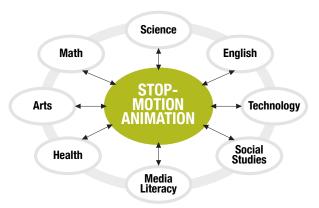


# The "How To" Behind the Instructional Lessons

## **Target Subject Areas for Stop-Motion Animation**

Target subject areas for stop-motion animation activities and projects are cross-curricular and inclusive of current and relevant themes, identified as appropriate for student age. You are encouraged to apply stop-motion animation to relevant lesson plans.

Fig. 1 Stop-Motion Animation: A Cross-Curricular Activity



Target subject areas include:

- English
- Math
- Science
- Social Studies
- Health
- Arts (Art, Music, Theatre)
- Technology
- Media Literacy (for advanced curriculums—grades 7 and up)

Popular and relevant themes identified for grades 7–9 include:

- Bullying
- The Environment
- Substance Abuse
- Active Healthy Lifestyles
- Racism, Diversity and Body Image

# **Learning Outcomes (Grades 7–9)**

This Stop-Motion Animation website accentuates the "Essential Graduation Learnings" of aesthetic appreciation, communication, personal development, problem-solving, spiritual and moral development and technological competence.

# **General Learning Outcomes**

Upon completion of this workshop, students will be able to:

- 1. Explore, challenge, develop and express ideas using the skills, language, techniques and processes of the arts;
- 2. Create and/or present, collaboratively and independently, expressive products in the arts for a range of audiences and purposes;
- 3. Demonstrate critical awareness of the role of the arts in creating and reflecting culture;
- 4. Respect the contributions of individuals and cultural groups in local and global contexts, and value the arts as a record of human experiences and expression;
- 5. Examine the relationship among the arts, societies and environments;
- Apply critical thinking and problem-solving strategies to reflect on and respond to their own expressive works and those of others;
- 7. Understand the role of technologies in creating and responding to expressive works; and
- 8. Analyze the relationship between artistic intent and the expressive work.

Click the following link to access a list of Canadian Provincial and Territorial Curriculum Websites

# **Stop-Motion Animation Lessons**

The online Stop-Motion Animation workshop is designed for grades 7-9 and consists of seven lessons. However, these lessons can be adapted for younger or older grades by making modifications to the film selection or the identified themes.

Each lesson is composed of:

- An Introduction
- Learning Outcomes
- Course Topics and Associated Video Resources
- Learning Activities for Students

# LESSON

# **Introduction to Media Literacy**

- Introduction
- Learning Outcomes
- Mass Media
- Media Literacy
  - o The Key Concepts of Media Literacy
  - o Critical Analysis of Media



# **Introduction to Animation**

- Introduction
- Learning Outcomes
- Defining Animation
- o Animation Facts
- Norman McLaren and NFB Pioneering
- Exploring Norman McLaren's Stop-Motion Animated Films
- Exploring Other Types of Animation



# **Overview of Technology and Principles of Animation**

- Introduction
- Learning Outcomes
- Basic Equipment Overview
- Timing and the Three Main Principles of Animation
- Creating a "Flipbook"
- The 12 Principles of Animation



nfb.ca/stopmo

nfb.ca/stopmo









# **Storyboarding and Storytelling**

- Introduction
- Learning Outcomes
- Storyboarding Your Idea: Telling a Story
- Introduction to Teamwork and Brainstorming
- Creating a Collaborative Storyboard



# **Creating Characters for Animation**

- Introduction
- Learning Outcomes
- Simple Sturdy Characters
- More Complex Characters
- Armatures
- Create and Build Your Characters



# **Creating a Set**

- Introduction
- Learning Outcomes
- Creating a 2D or 3D Set/Background
- The Creative Process
- Basic Lighting Techniques
- Critique an Animated Scene



# **Animation Production**

- Introduction
- Learning Outcomes
- Stop-Motion Animation Production
- SPX: Special Effects and "Tricks"
- How Computers and Technology Have Changed Animation
- Specific Computer Requirements
- Shoot and Edit Movie
- Presentation and Assessment of Movie

# **NFB Instructional Videos**

# **Main Instructional Videos** (Total length: 18 min 33 s)

**Main Instructional Video includes:** 

Clip 1: Introduction: Stop-Motion Animation Workshop (46 s)

Clip 2: NFB Pioneering Animation (58 s)

Clip 3: Basic Equipment Overview (1 min 3 s)

Clip 4: Three Principles of Animation (3 min 13 s)

Clip 5: Creating a Flipbook (3 min 1 s)

Clip 6: Storyboarding Your Idea (3 min 5 s)

Clip 7: Creating Characters (4 min 30 s)

Clip 8: Animation Production – Step by Step (3 min 30 s)

# **More Creative Tips and Ideas** (Total length: 9 min 57 s)

**More Creative Tips and Ideas Video includes:** 

Clip 1: More Creative Tips and Ideas (1 min 12 s)

Clip 2: Getting Started (1 min 43 s)

Clip 3: The Creative Process: Art Materials and Creating Sets (3 min 30 s)

Clip 4: More About Creating Characters (1 min 23 s)

Clip 5: Basic Technical Equipment: How to Connect (1 min 45 s)

Clip 6: Special Effects (1 min 36 s)

In the grade 7-9 curriculum, the eight Main Video Clips and More Creative Tips and Ideas Video Clips 3-6 have been linked for direct student instruction within the seven lessons. The information in Video Clips 1 and 2 has been integrated into lesson content. Video clip integration into lessons will vary depending upon student age.

# **Student Assessment**

#### **Formative Assessment:**

- Class discussion (or small group discussion) participation
- Class, group and individual learning activities
- Completion of a media analysis
- Critique of an animated scene (using the elements and principles of design)
- Art studio participation (storyboard, character creation, set creation, movie production)
- Group presentation of stop-motion animation
- Peer and self-assessment

Note: Many class discussions and activities may also be broken into smaller group discussion activities, depending upon technology resources within the classroom. The teacher will alter learning activities to correspond with the particular class environment, circumstances and time allotment, in order to complete lessons.

5





## **Summative Assessment:**

#### Stop-Motion Animation Rubric

All students must respect safety measures and precautions, as reviewed by the teacher, while participating in the Studio Artwork portion of the stop-motion animation lessons.

Students are encouraged to create gender-balanced, non-violent, multicultural animation projects, while participating in collaborative workgroups, being respectful to class participants at all times.

# **To Begin Lessons**

You may access class lessons from the StopMoStudio Playlist. To begin, click on lessons for grades 7–9, then Lesson 1: Introduction to Media Literacy.

We hope that you find these stop-motion animation lessons to be instructive, challenging and engaging.

## STOPMOSTUDIO EDUCATIONAL RESOURCES CREDITS

#### **NATIONAL FILM BOARD OF CANADA (NFB)**

Tey Cottingham -

Head, Institutional and Educational Markets

Kathy Sperberg -

Manager, National Education Programs

#### **AUTHORS**

Lisa St. Croix -

Senior Instructional Designer of Distance Education, Learning and Teaching Support (DELTS), Memorial University of Newfoundland

Nancy Beaton -

Assistant to Instructional Designer of DELTS

# ADDITIONAL COLLABORATORS

Kristine Collins
Jaclyn Lenko
Danielle Delhaes
NFB Mediatheque (Toronto)

# ANIMATION RESEARCH CONSULTANT

Kyler Kelly (Lesson 7 – Animation Production: A Trip Through Time with Animation Experts)

Additional research by Luc Chamberland

#### **EDITORS**

George Kaltsounakis (NFB) Christopher Korchin

# WORKSHOP SET DESIGNER (LESSON 5 PHOTOS)

Jennifer Krick

#### **PHOTOS**

National Film Board of Canada NFB Mediatheque (Toronto) CineRobotheque (Montreal) Bivouac Studio (Online Key Art) Desiree Martin (Lesson 5 – Creating Characters)

#### **GRAPHIC DESIGN**

Bivouac Studio



#### **CANADIAN PROVINCIAL AND TERRITORIAL CURRICULUM WEBSITES**

ANNEX 01

#### **ALBERTA**:

education.alberta.ca

#### **BRITISH COLUMBIA:**

g bced.gov.bc.ca

#### **MANITOBA:**

g edu.gov.mb.ca

#### **NEW BRUNSWICK:**

gnb.ca

#### **NEWFOUNDLAND AND LABRADOR:**

ed.gov.nl.ca

#### **NORTHWEST TERRITORIES:**

ece.gov.nt.ca

#### **NOVA SCOTIA:**

g ednet.ns.ca

#### **ONTARIO:**

edu.gov.on.ca

#### PRINCE EDWARD ISLAND:

🥱 edu.pe.ca

#### **QUEBEC:**

meq.gouv.qc.ca

#### **SASKATCHEWAN:**

education.gov

#### YUKON:

g yesnet.yk.ca





## **STOP-MOTION ANIMATION RUBRIC**

ANNEX 02

## REMEMBER, ALL GREAT STORIES START WITH A GREAT IDEA. GREAT STORIES MAKE GREAT ANIMATION.

	EXCELLENT	VERY GOOD	GOOD	NEEDS WORK	MARK %
IDEA FOR STORY	The idea for the story was excellent. Message extremely clear.	The idea for the story was very good. Message very clear.	The idea for the story was good. Message fairly clear.	The idea for the story needs work. Message is unclear.	15%
STORY- BOARD	Extremely well planned—excellent flow.	Well planned—very good flow.	Fairly well planned—good flow.	More planning required—flow needs work.	15%
	Drawings extremely effective in conveying the actions and emotions of story.	Drawings very effective in conveying actions and emotions of story.	Drawings fairly effective in conveying actions and emotions of story.	Actions and emotions of story not clearly conveyed in drawings.	
CHARACTERS	Characters are extremely interesting — excellent effort.	Characters are very interesting—very good effort.	Characters are interesting—good effort.	Characters are vague—more effort required.	10%
	Characters are extremely suitable to storyline.	Characters are very suitable to storyline.	Characters are suitable to storyline.	Characters' suitability to storyline is unclear.	
SET AND PROPS	The set/props do an excellent job of enhancing the production's aesthetics and mood.	The set/props do a very good job of enhancing the production's aesthetics and mood.	The set/props do a fair job of enhancing the production's aesthetics and mood.	The set/props need effort to help enhance the production's aesthetics and mood.	5%
DESIGN	Students display excellent knowledge of design elements.	Students display very good knowledge of design elements.	Students display fairly good knowledge of design elements.	Students' knowledge of design elements lacking.	10%
MOVIE PRODUCTION	Movement in the movie is very smooth.	Movement in the movie is smooth.	Movement in the movie is generally smooth.	Movement in the movie is irregular/jumpy.	15%
	An excellent attempt to incorporate "principles of animation" and/or "tricks" into movie.	A very good attempt to incorporate "principles of animation" and/or "tricks" into movie.	A good attempt to incorporate "principles of animation" and/or "tricks" into movie.	The incorporation of the "principles of animation" and/or "tricks" is not apparent.	
CREATIVITY	Extremely creative work.	Work is very creative.	Work is creative.	More thought and creative effort required.	10%
TEAMWORK	The team worked extremely well together—shared tasks and activities.	The team worked very well together—shared tasks and activities.	The team worked well together—shared most tasks and activities.	The team had difficulties working together and sharing tasks and activities.	20%
				TOTAL	/100