Skills Canada Nova Scotia

SKILLED FUTURES VIRTUAL EXPERIENCE

SKILLED FUTURES IN TECHNOLOGY - ANIMATION

CREATE YOUR OWN ANIMATION ZOETROPE

A zoetrope is a viewer device that was used long before video reels, 5G and movie theatres existed that allows your drawings and comic strips to come to life.

TOOLS AND SUPPLIES YOU NEED:

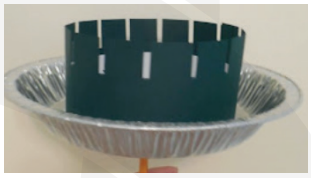
Black or dark paper
Ruler
Pencil or a chop stick
Scissors
Aluminum pie plate
Colour pencils
White paper
Tape and glue

BUILDING YOUR ZEOTROPE AND COMIC STRIP:

Step 1 - Cut a strip of the dark paper 2.5 in (~ 6 cm) wide, and 17 in (~ 43 cm) long. You will have to tape together two different strips to get the length if you are using a standard size piece of paper.

Step 2 - Using your ruler, measure out the slits 1 inch (2.5 cm) apart and 1 inch (2.5 cm) deep. Each slit was 1/8 inch (~ 1/3 cm) wide. Next tape the strip of paper into a cylinder shape.

Step 3 - Create a hole in the centre of your pie plate with the pencil. Place the cylinder in the center of the pie plate and using tape or glue secure the cylinder in place. Poke your pencil or chopstick through the hole and secure with tape or glue to make your handle



Step 4 - Next comes the fun part. Draw your very own comic strip on white paper or you can use the Cartoon Conrad comic strip attached to this activity. Make your paper strip the same width of the base of your black cylinder, around 1.5 in or 3.5 cm.

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Step 5 - Next roll your comic strip into a log and place it down into your zeotrope cylinder.

Step 6 - Now spin your zeotrope and look through the slits in the cylinder at your comic.

Congratulations you now have a cartoon animation!

Do you want to share your creation for a chance to win a prize?

Do you want to share your creation for a chance to win a prize?
Take pictures or video of your creation and share them with us on Facebook and/or Instagram by including #SkilledFutures in your post and tagging @SkillsNS.

HAPPY BUILDING AND DRAWING!

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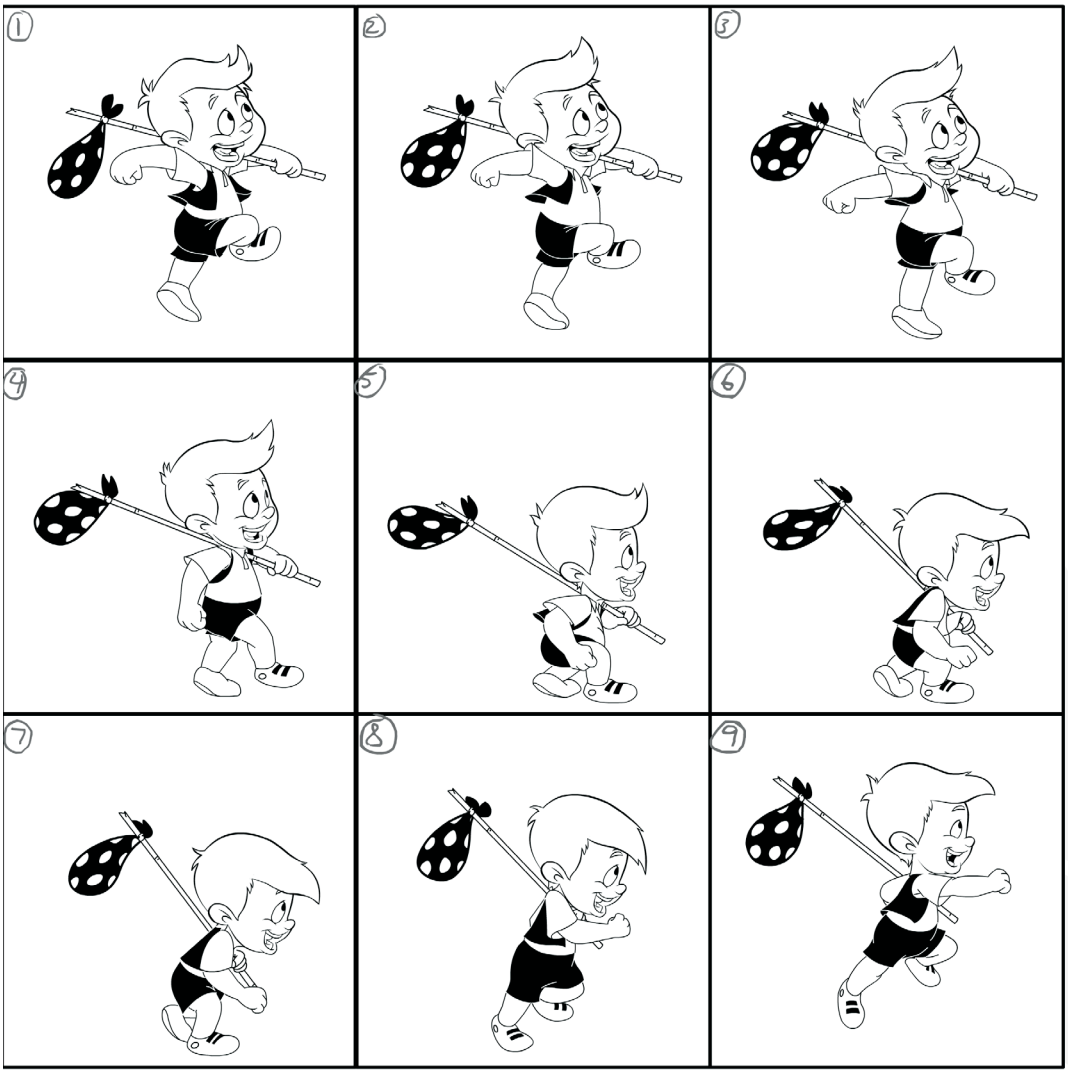

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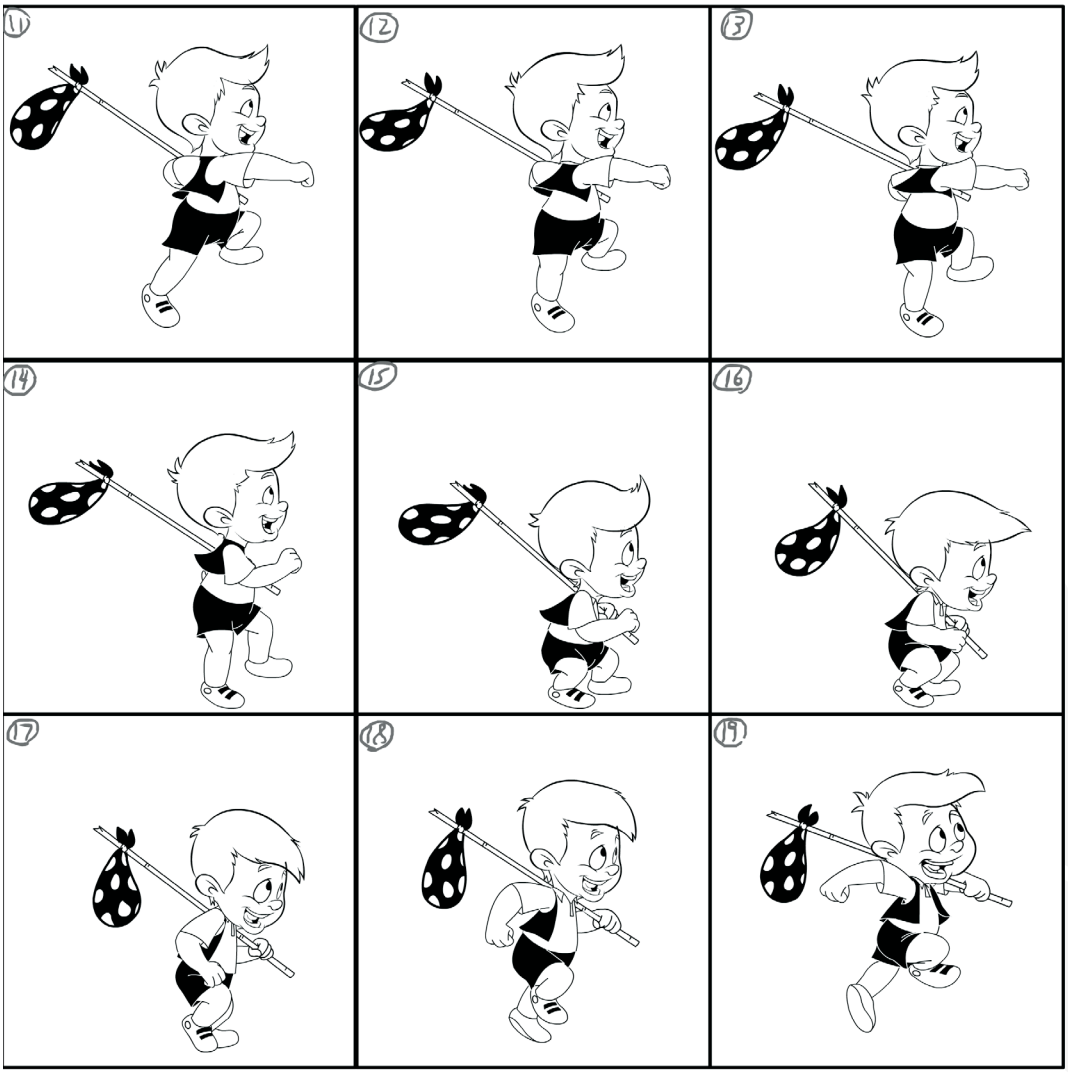

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CAREER CONNECTIONS - ANIMATION & PRODUCTION

This activity can be connected to the following careers:

2D and 3D Animator
Background Artist
Script Writer
Technical Support Specialist
3D Modeller
Character Designer
Sound Designer
Texture Artists
3D Rigger
Compositor
Storyboard Artists

CURRICULUM OUTCOME CONNECTIONS

The Skilled Futures Virtual Experience has been confirmed with representatives from the Department of Education & Early Childhood Development to connect with the following curriculum outcomes:

Fundamentals of Technology 7-9 Threading Outcomes

GCO 1: Students will be expected to design, develop, evaluate, and articulate technological solutions.

GCO 3: Students will be expected to demonstrate an understanding of the history and evolution of technology, and of its social and cultural implications.

Grades 7 -9: Students will be expected to ...
5.1 work independently, co-operatively, and collaboratively to solve technological problems
5.2 demonstrate an awareness of ethics and environmental responsibility in technological decision making and work habits
5.3 demonstrate preparedness for technological problem solving
5.4 demonstrate safe and healthy practices with regard to materials, processes, and equipment
5.5 document the design process
5.6 independently demonstrate appropriate application of skills learned
5.7 demonstrate measuring skills with accuracy and precision
5.8 communicate ideas using 2-D and 3-D technical drawings and sketches
5.9 use appropriate language and terminology as applied to technology education
5.10 investigate connections among technology education, STEM (Science, Technology, Engineering, and Math), and careers

Communications Technology

GCO 4: Students will be expected to demonstrate an understanding of the consequences of their technological choices.

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Grade 7: Students will be expected to ...
1.1 interpret a plan to solve communications technology problems
1.2 create solutions to communications technology problems using given media
1.3 evaluate their design solutions, redesigning as necessary
1.4 modify a variety of given communications technology media to solve a design problem
1.5 identify target audiences
1.6 identify principles of design

Grade 8: Students will be expected to ...
1.1 modify a plan to solve communications technology problems
1.2 create solutions to communications technology problems using a variety of media
1.3 evaluate their design solutions, redesigning as necessary
1.4 demonstrate effective use of a variety of communications technology media
1.5 characterize target audiences and determine effective medium
1.6 apply principles of design

Grade 9: Students will be expected to ...
1.1 develop a plan to solve authentic communications technology problems
1.2 create solutions to authentic communications technology problems
1.3 evaluate their solutions to authentic communications technology problems
1.4 create and manipulate a variety of communications technology media to solve a design problem
1.5 determine criteria for specific target audiences
1.6 apply principles of design
1.7 present a solution and rationale to a target audience using a given medium

Innovations and Inventions

GCO 2: Students will be expected to operate and manage technological systems.

Grade 7: Students will be expected to ...
3.1 interpret a plan to develop a system
3.2 create a model or prototype of an existing invention
3.3 differentiate the components of simple technological systems
3.4 examine and communicate the importance and impact of invention and innovation
3.5 develop improvements to an existing product
3.6 investigate the manufacturing process of a product
3.7 engineer a prototype to solve a design challenge

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Grade 8: Students will be expected to ...
3.1 modify a plan to develop a system
3.2 create a model or prototype of an existing invention
3.3 explain a complex system in terms of its subsystems
3.4 examine and communicate the importance and impact of invention and innovation
3.5 develop improvements to an existing product
3.6 document the life cycle of a manufactured product
3.7 employ control systems to regulate processes
3.8 diagnose and repair malfunctioning systems

Grade 9: Students will be expected to ...
3.1 design and construct a system incorporating simple machines that will initiate a series of events
3.2 design an adaptation for an existing product that solves a new need
3.3 explain a complex system in terms of its subsystems
3.4 evaluate the impact of invention and innovation
3.5 develop improvements to an existing product
3.6 hypothesize and investigate how products are manufactured
3.7 employ control systems to regulate processes
3.8 reverse-engineer a product to explain its inner workings

Production Technology

GCO 5: Students will be expected to demonstrate an understanding of current and evolving careers and of the influence of technology on the nature of work.

Grade 7: Students will be expected to ...
4.1 demonstrate an understanding of all safety features of production technology machines and equipment used to solve design problems
4.2 demonstrate safe and effective use of a variety of production technology tools and processes
4.3 demonstrate an understanding of safe management of wood dust
4.4 interpret a plan to solve production technology problems
4.5 construct solutions to production technology problems
4.6 evaluate solutions to production technology problems
4.7 safely use basic hand tools, power tools, and equipment to create a product that solves a design problem
4.9 use fasteners to combine materials
4.10 use environmentally friendly finishing techniques to enhance the esthetics or functionality of a product

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Grade 8: Students will be expected to ...

4.1 demonstrate an understanding of all safety features of production technology machines and equipment used to solve design problems
4.2 demonstrate safe and effective use of a variety of production technology tools and processes
4.3 demonstrate an understanding of safe management of wood dust
4.4 modify a plan to solve production technology problems
4.5 construct solutions to production technology problems
4.6 evaluate solutions to production technology problems
4.7 safely use a variety of hand tools, power tools, and equipment to prepare stock
4.8 construct an aesthetically pleasing finished product that solves a design problem
4.9 use a variety of fasteners to combine materials or assemble a product
4.10 use environmentally friendly finishing techniques to enhance the esthetics or functionality of a product

Grade 9: Students will be expected to ...

4.1 demonstrate an understanding of all safety features of production technology machines and equipment used to solve design problems
4.2 demonstrate safe and effective use of a variety of production technology tools and processes
4.3 demonstrate an understanding of safe management of wood dust
4.4 develop a plan to solve authentic production technology problems
4.5 construct solutions to authentic production technology problems
4.6 evaluate solutions to authentic production technology problems
4.7 safely use production equipment and machines to process materials
4.8 work with real-life clients or situations to solve production related problems within school or community environments
4.9 use a variety of fasteners to combine materials or assemble a product
4.10 use environmentally friendly finishing techniques to enhance the esthetics or functionality of a product