

LIFE CYCLE OF A FROG – Shape, Colour Mixing

Students use Model Magic to create a model of the 4 stages of the life cycle of a frog.

Required Time
80 Minutes

Grade Level
Grade 1 to Grade 3

Subject
Language Arts
Science
Visual Arts

Vocabulary
amphibian
blend
frog
froglet
shape
tadpole

Materials

Scissors

Construction Paper – 22.9 cm x 30.5 cm (9" X 12")

Heavy Weight Paper 25 cm x 25 cm (10" x 10") 1 piece per student

Glue

Black Fine Line Marker

Model Magic Modelling Compound

Shop Crayola Products



Model Magic 4 oz Bag, Black



Blunt Tip Metal Scissors



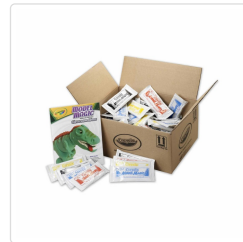
Construction Paper, 120 Count



Washable No-Run School Glue, 118 ml



Fine Line Markers, 12 Count



Model Magic Classpack, Assorted Colours



Model Magic 2lb Bucket, Primary Colours

Steps



Step One

1. Use white and black Model Magic to create the eggs and the eyes of all stages of the froglet.
2. Mix blue and yellow Model Magic together to make green.
3. Flatten the green Model Magic and cut shapes for the adult frog.



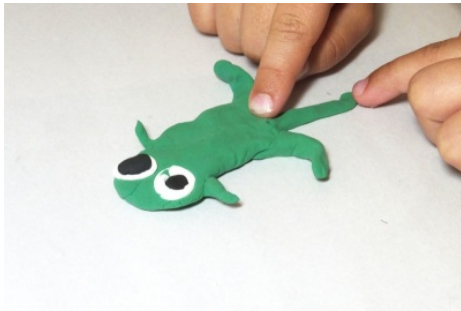
Step Two

1. Blend white and green Model Magic together to get light green.
2. Use it to add contrasting details to your adult frog.



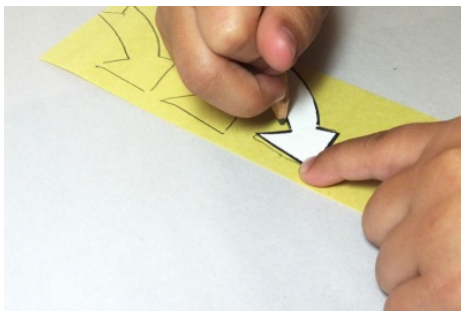
Step Three

1. Press the pieces of Model Magic together firmly. They should stick, but you can add Washable glue to attach the pieces if they have started to dry.



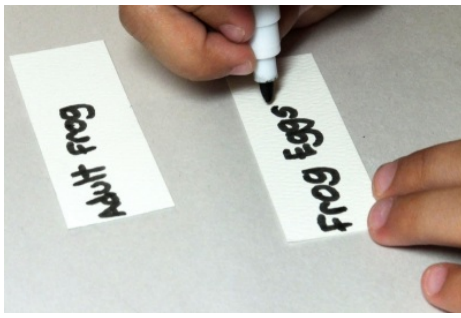
Step Four

1. Use some of the green Model Magic to create a froglet. Remember it is smaller than the adult frog.
2. Press the Model Magic together firmly.
3. Use black Model Magic to make the tadpole and the tadpole with legs.



Step Five

1. Use a tracer to draw 5 arrows on a piece of bright coloured construction paper.
 2. Cut them out.
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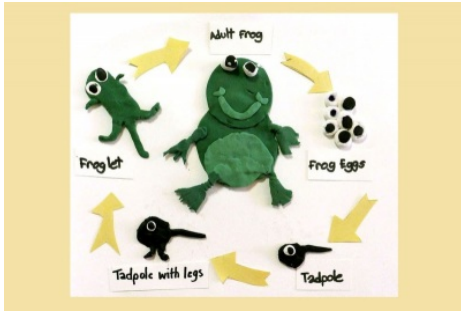


Step Six

1. Print each stage of the life cycle of the frog on small pieces of paper.

Step Seven

1. Arrange all the pieces you have created on a piece of heavy weight paper.
2. Place the Model Magic adult frog in the centre of the paper.
3. Place the Model Magic pieces for each stage in a circle around the adult frog.
4. Use the arrows to show the right direction from frog eggs to the adult frog.
5. Glue all the pieces in place with Washable glue.



Learning Goals

Students will be able to:

1. Create a model of the four stages of the life cycle of a frog;
2. Accurately mix light and dark green;
3. Use the model to present the stages of the life cycle of a frog;
4. Demonstrate technical accomplishment and creativity; and
5. Support their ideas with evidence found in the works.

Extensions

1. Have students do independent research for a different life cycle of another amphibian, bird or animal.
2. Place the students in small groups and have them share their results.
3. Have students use a box such a shoe box or cereal box with one side side cut off to create a home for either the frog or the other researched animal/bird.

Prepare

1. Download the diagram of the life cycle of a frog from the Internet, Frog
2. Gather and make available picture books about frogs, for example, *Frog and Toad*, by Arnold Lobel; *Two Frogs*, by Chris Wormell; *The Life Cycle of a Frog*, by Bobbi Kalmar; *Fabulous Frog*, by Martin Jenkins.
3. Prior to this lesson teach the stages of the life cycle of a frog (egg, tadpole, froglet and adult).
4. Organize the materials required for this lesson in containers for easy distribution.
 - yellow, blue, white and black Model Magic
 - rollers and round cookie cutters
 - toothpicks
 - tracers for arrows (Downloads – Arrow_tracers.pdf)
 - small pieces of construction paper
 - small pieces of white paper for labels
 - Washable glue
 - scissors
 - pencils and markers
5. Download and display the Colour and Shape posters available on this website, Posters
6. Prior to this lesson have students use primary colours of Model Magic to create a variety of new colours.
7. Place students into groups of about 6 so they can share materials.

Introduction

1. Read a book such as *The Life Cycle of a Frog*, by Bobbi Kalmar to review the stages.
2. Discuss the characteristics of each stage in the life cycle, and draw a diagram on a chart paper using symbols to represent the stages.
3. Introduce the challenge.

Activities

The Challenge

1. Use Model Magic to create a model of the four stages of the life cycle of a frog.
2. Accurately mix light and dark green.
3. Use your model to present the stages of the life cycle of a frog.
4. Demonstrate technical accomplishment and creativity.
5. Support your ideas with evidence found in the works.

The Process

1. Ensure that everyone understands the challenge.
2. Establish success criteria with your students, for example,
 - *accurately mixed light and dark green*
 - *changed size for each stage of the life cycle*
 - *accurately made models of each stage of the life cycle*
 - *placed the adult frog in the centre of the paper*
 - *used contrasting colours to create details*
 - *labels are correct*
 - *arrows are correct*
 - *paper is in good condition*
3. Demonstrate how to blend equal amounts of blue and yellow Model Magic to get the colour green.
4. Observe students as they create their own green colour.
5. Once the green colour is made guide students through the steps outlined in the lesson plan.

6. Provide individual assistance and encouragement.

Sharing

1. Once all the models of the life cycle are done ask students to share in pairs or small groups.
Ask them to:
 - *Look closely at all the models and how they were made.*
 - *Share thoughts about the work.*
 - *Talk about how the colour green was created.*
 - *Talk about how the size changed from a froglet to a frog and how the Model Magic was used to show that change.*
 - *Talk about what was difficult about making the four stages.*
 - *Talk about what was satisfying about making these different stages*
2. *Ask some students to share their ideas with the whole class.*
3. *Ask students to use their model to describe the life cycle of the frog. Remind them to :*
 - *Speak with a clear voice;*
 - *Look at your audience; and*
 - *Hold the model to the side so you are facing the audience.*
4. *Display the stages so that students can view them as a body of work throughout the next few weeks.*

Assessment

1. Observe students as they work – thoughtful focus, discriminating, seeking more information, elaborating, experimenting.
2. Observe students as they discuss the various stages of the frog and how they use their model to enhance their presentation – speaks with a clear voice, looks at audience while speaking, holds model to the side, provides accurate information, answers questions from the audience effectively.
3. Observe students as they listen – looks at presenter, asks effective questions, supports ideas with evidence found in the model.
4. Use a checklist to track progress (Downloads - Model_tracking.pdf)
5. Have students use the self-assessment form to evaluate their work (Downloads - Model_self-assessment)