




CODE OF THE WOLF



RATIONALE FOR ADVENTURE

This STEM-based adventure engages Wolves in fun math-related activities that range from counting and simple arithmetic to geometric shapes and code.

TAKEAWAYS FOR CUB SCOUTS

- Realization that math is all around us
- Starting to see math as a fun tool
- Creativity and deductive reasoning
- A Scout is cheerful, thrifty. 

ADVENTURE REQUIREMENTS

Wolf Handbook, page 142

Complete the following requirements.

1. Complete two of the following:
 - A. With the members of your den or family, make a game with simple materials that requires math to keep score.
 - B. Play a game of "Go Fish for 10s."
 - C. Do five activities at home, at school, or in your den that use mathematics, and then explain to your den how you used everyday math.
 - D. Make a rekenrek with two rows, and show your den leader or other adult how you would represent the numbers 4, 6, 9, and 14.
 - E. Make a rain gauge or some other measuring device, and use it.
2. Complete one of the following:
 - A. With other members of your den or family, identify three different types of shapes that you see in nature.
 - B. With other members of your den or family, identify two shapes you can see in the construction of bridges.
 - C. Select a single shape or figure. Observe the world around you for at least a week, and write down where you see this shape or figure and how it is used.
3. Complete one of the following:
 - A. With your den, find something that comes with many small, colored items in one package. Count the number of items of each color in your package. Keep track of each color. Then:
 - i. Draw a graph showing the number of items of each color.
 - ii. Determine what the most common color is.
 - iii. Compare your results to those of the other Scouts.
 - iv. Predict how many items of each color you will find in one more package.
 - v. Decide if your prediction was close.
 - B. With your den or family, measure the height of everyone in the group and see who takes more steps to walk 100 feet.
 - C. Have each member of your den shoot a basketball. Count the number of shots it takes for each Scout to sink five baskets. Make a graph that shows how successful your den was. Your graph should show each group that needed 5, 6-10, 11-15, 16-20, and more than 20 tries to sink their shots.

4. Complete one of the following:

- A. Use a secret code using numbers to send a message to one of your den members or your den leader. Have that person send a message back to you. Be sure you both use the same code.
- B. Send a message to another member of your den or your den leader using the pig pen code or another code that changes letters into special shapes.
- C. Practice using a code stick to create and decode a message.

NOTES TO DEN LEADER

This adventure does not include plans for a den outing. If a den outing is desired, the leader may plan to hold one of the meetings at a location where Wolf Scouts could learn about geometry and bridges as part of fulfilling requirement 2. All event coordination and activity consent forms would need to be in place in advance, depending on the location selected.

See the options in the *Wolf Handbook* for requirement 1. Adjust meeting plans as needed if your den chooses different options to complete the requirement.

See the appendix for optional den meeting activities, including openings, gatherings, and closings.

MEETING 1 PLAN

PREPARATION AND MATERIALS NEEDED

- U.S. and den flags
- For Gathering—materials for “Bull’s-Eye” (see Meeting 1 Resources)
- Materials for making a rain gauge or other measuring device (Activity 1, requirement 1E)
- Cards for playing “Go Fish for 10s” or materials for making a game that requires math to keep score (Activity 2, requirements 1A and 1B)

GATHERING

Have the Scouts take turns at playing “Bull’s-Eye” while waiting for everyone to arrive. An adult or the den chief should keep track as each Scout tries to reach a score of 25.

OPENING

- Conduct a flag ceremony of your choosing that includes the Pledge of Allegiance and the Scout Oath and Scout Law.
- Optional opening: Lead the den in singing “Boom Chicka Boom” (see Meeting 1 Resources).

TALK TIME

- Introduce the Code of the Wolf adventure to the den. Build interest by describing the goals of the adventure and some of the activities that are planned.
- Carry out business items for the den.
- Allow time for sharing among Cub Scouts.

ACTIVITIES

◆ Activity 1: Rain Gauge (Requirement 1E)

Have each Scout build a rain gauge, using the instructions in the *Wolf Handbook*. (Note: If Scouts prefer to make something else, the *Cub Scout Leader How-To Book* offers instructions for a liquid barometer and a wind gauge, also known as an anemometer.)



◆ Activity 2: Adding Game (Requirement 1A or 1B)

Scouts may play “Go Fish for 10s” as a second activity (see the *Wolf Handbook* for rules), or they could create a game of their own that requires math to keep score. The *Wolf Handbook* provides some suggestions, and here is one more:

Life-size board game. Use two boxes to create a large pair of dice. Then map out a game board on the floor, using construction paper for the spaces. Have Scouts take one turn each, rolling the dice and adding the numbers to see how many spaces they should move. Create simple instructions to appear on certain spaces on the board, such as “Skip two spaces,” “Lose a turn,” “Move back five spaces,” etc. The game doesn’t need to be elaborate.

CLOSING

Here’s a chance to note that the Scout Law has 12 points. Recite the words together; then have each Cub Scout say what one of the points means to them.

AFTER THE MEETING

- Serve refreshments, if desired.
- Record completion of requirements 1A or 1B and 1C.
- Work together to clean up the meeting place.

MEETING 1 RESOURCES

GATHERING: BULL’S-EYE

The objective in this game is to reach a score of 25 by tossing small objects onto paper plates marked with different numbers.

Materials: Small objects to use as counters (e.g., pennies, beans); six paper plates (two sets of three) with the numbers 1, 5, and 10 marked on them

Instructions: Establish two throwing lines, and set three paper plates in straight succession at varying distances from the line. As Cub Scouts arrive for the meeting, give each Scout 10 of the counters so they can attempt a score of 25—scoring one point if they hit the nearest plate, five points for the next one, and 10 points if they reach the farthest plate.

OPENING: “BOOM CHICKA BOOM”

The leader slaps both legs and snaps their fingers as lines are added one at a time, and chants the lyrics as the group repeats each line.

I said boom!
I said boom chicka-boom!
I said booma-chicka-rocka!
I said booma-chicka-rocka-chicka-rocka-chicka-boom!
Uh huh!
Oh yeah!
One more time. ...
This time higher. ...

(Repeat the above verses in different ways—in a lower voice, faster, slower, etc.
Make up any variations that you think the Scouts will enjoy.)

MEETING 2 PLAN

PREPARATION AND MATERIALS NEEDED

- U.S. and den flags
- Materials for invisible ink investigations (Gathering)
 - White paper
 - Hair dryer
 - Baking soda
 - Cotton swabs, toothpicks, or paintbrushes
 - White crayons
 - Lemon juice
 - Watercolors
- Materials for graphing (Activity 1)
 - Graph paper for each Scout or a large sheet of poster board
 - Two packages of the same multicolored object (paper clips, marbles, colored candies, etc.)
- Paper for writing secret codes (Activity 2), and more materials if the den will be making code sticks:
 - Scissors
 - Tape
 - Unsharpened pencils (one per Scout) to wrap the paper around
 - Pens or pencils to write the code letters

GATHERING

Set the materials for the invisible ink investigations on a table and have each Scout participate when they arrive for the meeting.

- Mix baking soda with water. Then dip a cotton swab, toothpick, or paintbrush into the mixture and use it to write a message on plain white paper. Heat the message by blowing the hair dryer over it, and watch the message turn a brownish color.
- Now clean off the writing instrument, dip it into lemon juice, and perform the same experiment.
- Write another message on white paper with a white crayon. Then brush a watercolor over the message; the crayon will resist the watercolor and stay white.

OPENING

- Conduct a flag ceremony of your choosing that includes the Pledge of Allegiance and the Scout Oath and Scout Law.
- Lead the Scouts in the Centipede Yell: "Ninety-nine THUMP! Ninety-nine THUMP! Ninety-nine THUMP! This wooden leg is murder!" Then add some variations for the last line, like "My feet are killing me!" and "My shoe bill is outrageous!"

TALK TIME

- Carry out business items for the den.
- Allow time for sharing among Cub Scouts.

ACTIVITIES

◆ Activity 1: Graphing (Requirement 3A)

Graphing is an important skill because it teaches observation and deductive reasoning. The Scouts may do this activity in teams or individually, using the instructions in the *Wolf Handbook*. Including an edible treat works well because you can use things like trail mix or mixed candy to graph, and then let the Scouts eat the “materials” after they finish the activity. (If you do use food, check in advance to see if there are any allergies in the group.)

Ideally, each small package of whatever item you use will contain 20 to 30 pieces (or more), enough to give you a reasonable sampling of the item. Graph paper may be helpful in drawing charts, but it is not necessary. If you prefer to build a single chart using poster board, you could draw the graph using 1- or ½-inch scales for each item.

◆ Activity 2: Secret Codes (Requirement 4)

Have the Cub Scouts in your den do at least one of the activities for this requirement in the *Wolf Handbook*: Exchange messages via code numbers or shape codes, or create and use a code stick.

CLOSING

Lead the America Cheer. Call out, “Give me an ‘A,’ give me an ‘M,’ give me an ‘E,’” etc., until “AMERICA” is spelled out. Then shout, “What’s that spell?” Scouts respond, “America—land that I love!”

AFTER THE MEETING

- Serve refreshments, if desired.
- Record completion of requirements 3 and 4.
- Work together to clean up the meeting place.

MEETING 3 PLAN

PREPARATION AND MATERIALS NEEDED

- U.S. and den flags
- Materials for the “Bounce ‘n’ Catch” game (Gathering): eight plastic cups; basket of pingpong balls; table
- Books or magazines to identify shapes in nature (for Activity 1 if the weather does not permit doing this outside)
- Materials for making tangram puzzles: pencils, rulers, scissors, envelopes, and one cardboard square per Scout

GATHERING

Place the basket of pingpong balls on the table before the meeting. When Scouts arrive, have them take a turn at the game. Each player starts by holding a plastic cup in one hand and bouncing a pingpong ball off the floor and into the cup. Once a ball makes it into the cup, players stack a new cup on top of the ball in the first cup and bounce another ball into the empty cup. Play continues until all eight cups contain one ball and are stacked on top of each other.

OPENING

- Have Cub Scouts form a circle and pass the Cub Scout handshake from one to another until it reaches the Scout who started it. Then, on the count of three, they all give a wolf howl.
- Conduct a flag ceremony of your choosing that includes the Pledge of Allegiance and the Scout Oath and Scout Law.

TALK TIME

- Carry out business items for the den.
- Allow time for sharing among Cub Scouts.
- Review the information on shapes used in the construction of bridges in the *Wolf Handbook* (requirement 2B).

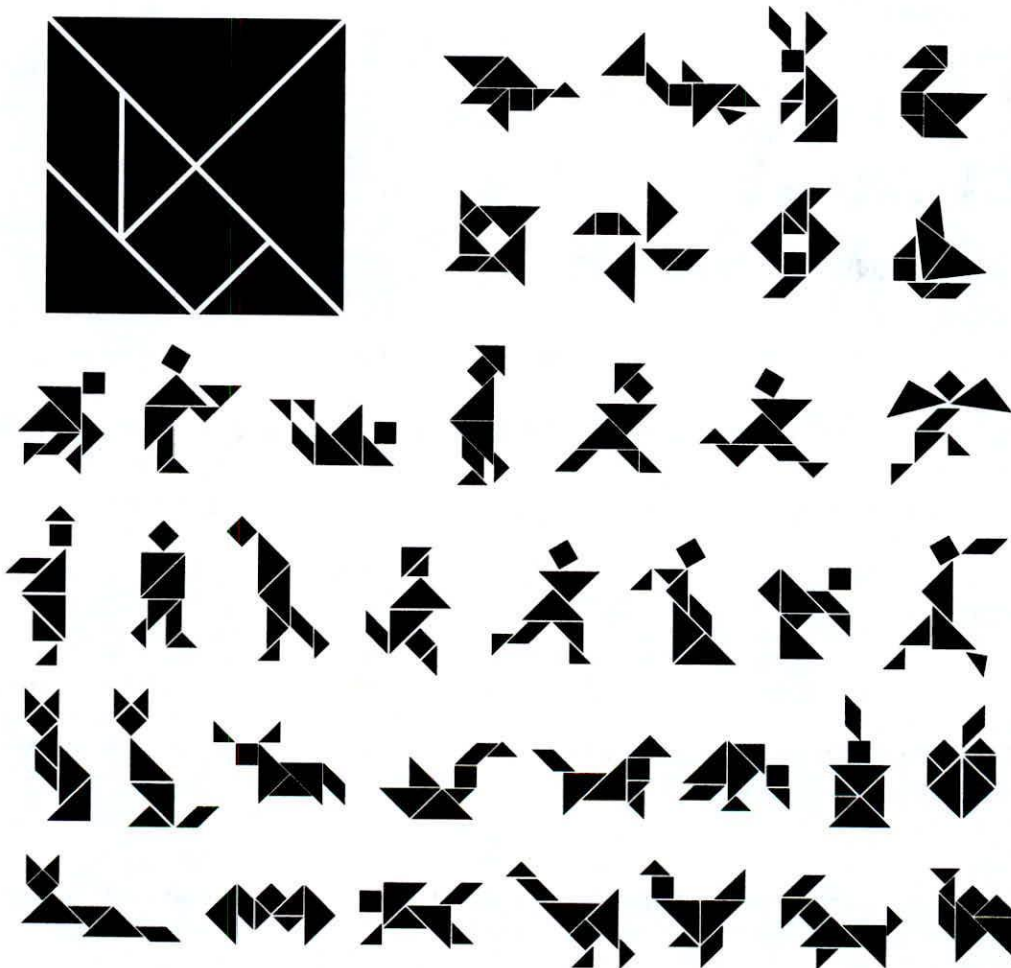
ACTIVITIES

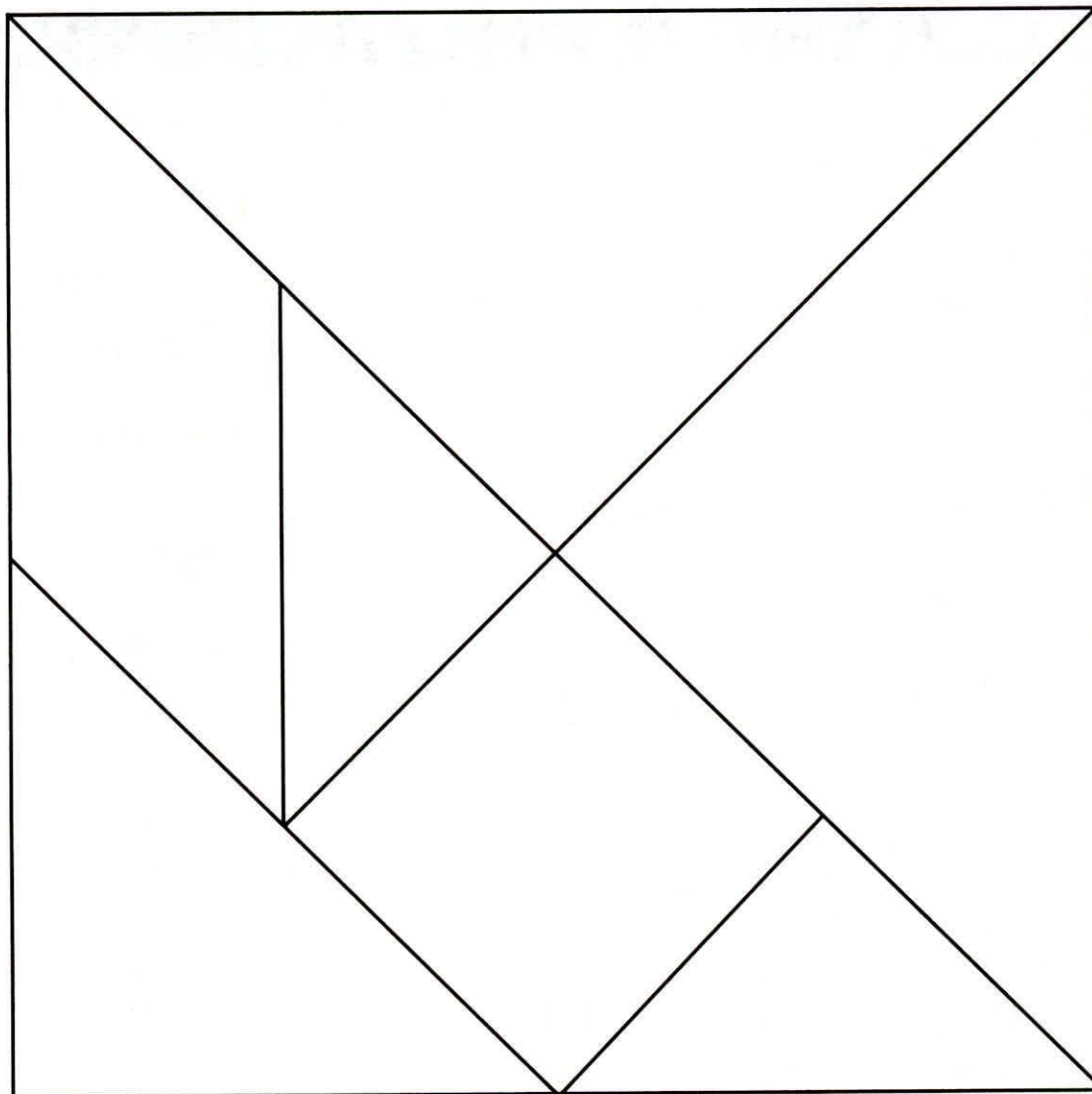
◆ Activity 1: Shapes in Nature (Requirement 2A)

- Have the Scouts take a walk outside, stopping to note the shapes of leaves, flowers, trees, rocks, clouds, and blades of grass.
- If weather conditions make this impossible, browse through the books and magazines so the Scouts can identify three different types of shapes found in nature.

◆ Activity 2: Making a Tangram (Optional)

The tangram, a puzzle that originated in ancient China, is a square made of seven flat shapes that can be put together to form other shapes. For this activity, have each Scout use a pencil and ruler to mark off the seven shapes on one square of cardboard. Then Scouts will cut the shapes from the cardboard and use the pieces to make silhouettes of animals, people, geometric figures, or anything else they choose. The pieces can be stored in the envelopes for the Scouts to take home after the meeting.





CLOSING

Gather the den in a circle and sing "I've Got That Cub Scout Spirit" (Tune: "I've Got That Joy, Joy, Joy, Joy")

*I've got that Cub Scout spirit up in my head,
Up in my head, up in my head.*

*I've got that Cub Scout spirit up in my head,
Up in my head, to stay.*

(Sing three more verses, replacing "up in my head" with different words each time:
"deep in my heart," "down in my feet," "all over me.")

AFTER THE MEETING

- Serve refreshments, if desired.
- Record completion of requirement 2.
- Work together to clean up the meeting place.

Upon completion of the Code of the Wolf adventure, your Wolves will have earned the adventure loop shown here. Make sure they are recognized for their completion by presenting the adventure loops, to be worn on their belts, as soon as possible according to your pack's tradition.



