

INSIDE:

Three problem-solving game variations—
each with a prehistoric twist!

Notes to Teachers and Parents:

Dino Math Tracks™ is designed to help young children experience the meaning and uses of whole numbers and numerals in an exciting dinosaur game setting. Moves determined by the toss of number cubes or the drawing of number or problem cards focus attention on place value and help children develop problem-solving strategies, two goals set forth by the National Council of Teachers of Mathematics in its *Curriculum and Evaluation Standards for School Mathematics*.

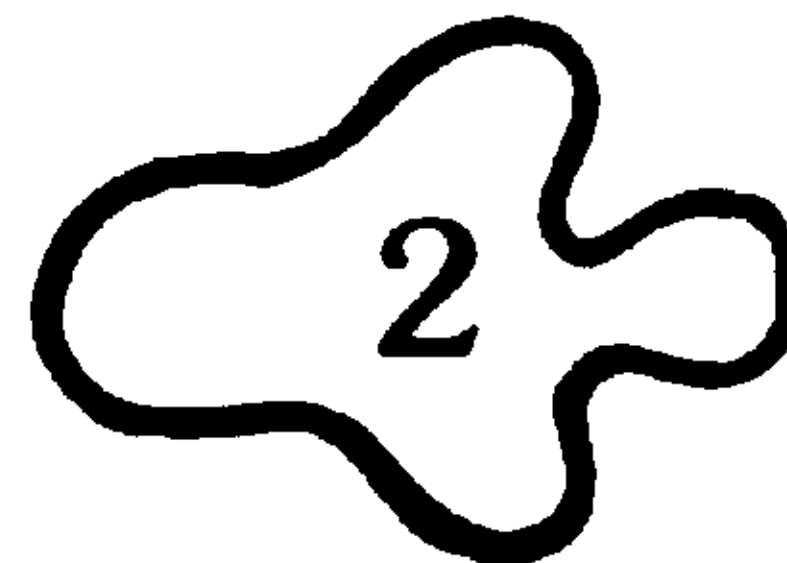
Colorful and appealing, *Dino Math Tracks™* features three separate sets of playing rules and game variations to meet the needs and interests of a broad range of children from grades 1 through 4. As children move their dino herd along the color-coded track to the safety of Dino Haven, they will not only develop and sharpen their problem-solving skills and strategies – they'll have fun, too!



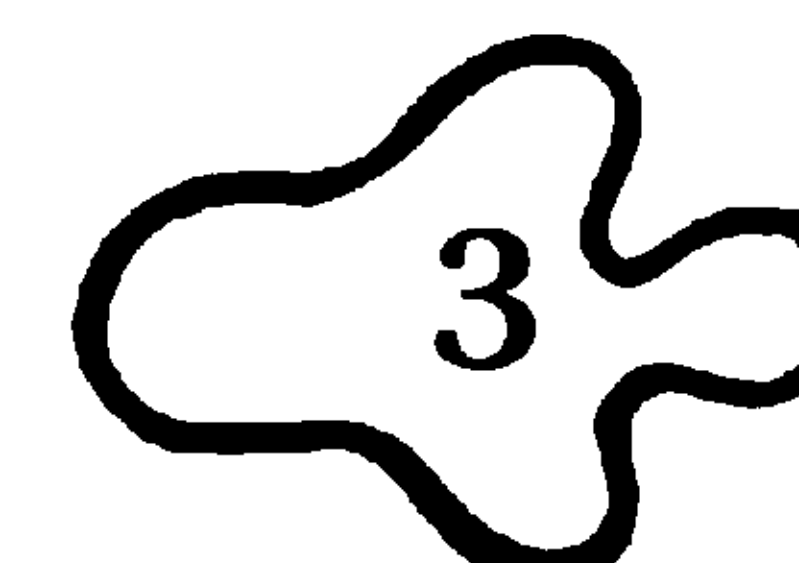
Game Contents:

- ◆ Game Board
- ◆ Game Guide
- ◆ 5 Number Cubes
- ◆ 16 Dinosaur Playing Pieces
- ◆ 36 Dino Action Number Cards
- ◆ 36 Dino Problem-Solving Cards

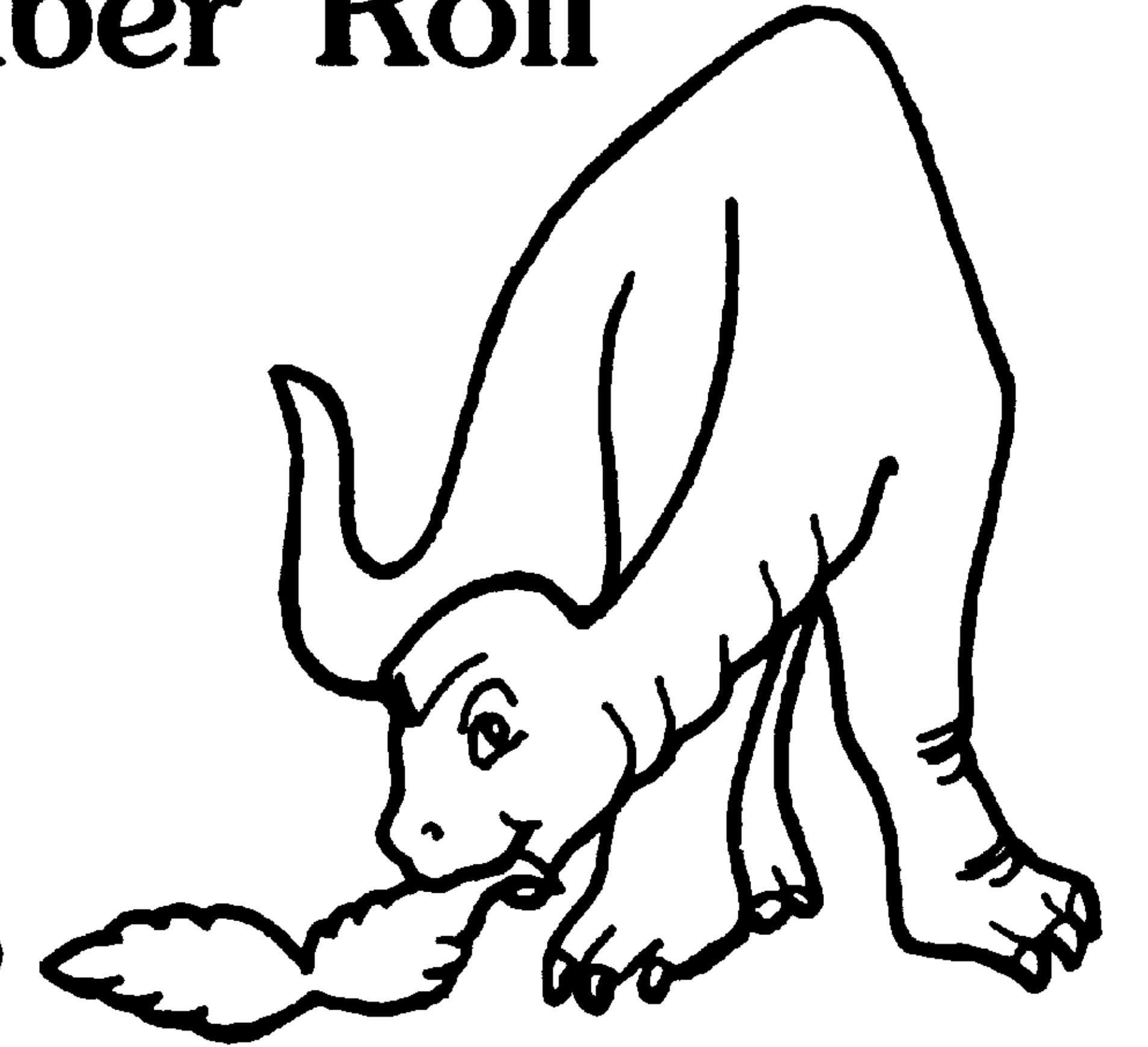
⚠ WARNING:
CHOKING HAZARD - Small parts.
Not for children under 3 years.



Dino Math Tracks™
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Dino Math Tracks™ Game 1: Prehistoric Number Roll



Materials: Game Board
Dinosaur Playing Pieces
4 White Number Cubes
1 Green Number Cube

Players: 2-4 Players, ages 6 and up

Getting Ready:

Each player chooses one herd of dinosaurs (ie. the Stegosaurus herd) and places all 4 members (purple, green, yellow and red) in the appropriate corner of the Game Board.

Playing the Game:

1. Players each roll the green Number Cube. The player with the largest number starts the game.
2. The first player rolls all 4 white Number Cubes and arranges them in his/her colored place value box to make any four-digit number desired. The digits 1, 2, 3, and 4 can be arranged in 24 different ways! Examples are shown below.



3. Player then moves his/her dinosaurs along the matching color tracks. The red dinosaur, for example, moves the number of red spaces indicated by the thousands digit, the yellow dinosaur moves the number of green spaces indicated by the hundreds digit, and so on until all four dinosaurs have been moved.

Note: You may wish to have children count their moves aloud to make the connection between the numbers and their place value. For example, for a number such as 3,000, the player can count the move as follows: *One thousand, two thousand, three thousand; no hundreds; no tens; and no ones.*

4. Play passes to the next player on the left, and so on around the board. Each player follows steps 2-6.
5. If a player's dinosaur lands on the same footprint as another player, the two players have a **"Showdown."** Each tosses the green Number Cube. The player with the larger number wins and moves his dinosaur forward that many spaces.

Players must first move all dinosaurs according to their roll before completing any necessary **Showdowns**.

6. The first player to get all four of his dinosaurs under Rainbow Bridge wins the game.

Game Variations:

- ◆ For younger children, you may want to play with just one or two Number Cubes. For the simplest one-cube game, use purple dinosaurs and travel along the purple "ones" track. For a two-dinosaur game, use green and purple dinosaurs, arrange 2 digit numbers in the green and purple boxes and travel only those tracks. Later, you can add the yellow dinosaur for work with 3-digit numbers.
- ◆ For added challenge, stipulate that players make the largest or smallest number they can with their Number Cubes.

Dino Math Tracks™

Game 2:

Dino Math Action



- Materials:** Game Board
Dinosaur Playing Pieces
4 White Number Cubes
1 Green Number Cube
36 Dino Action Number Cards

Players: 2-4 players, ages 7 and up

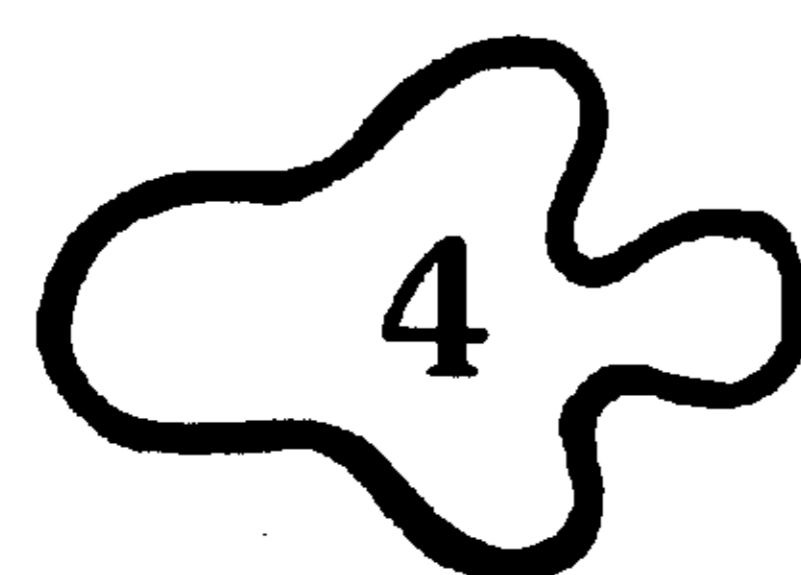
Getting Ready:

Shuffle the Dino Action Number Cards and place the pack face down on the left-hand rock in the center of the Game Board. Each player chooses a herd of dinosaurs (ie. the herd of Stegosauruses) and places all four members in the appropriate corner.

Playing the Game:

1. Players each roll the green Number Cube. Player with the largest number starts the game.
2. The first player rolls all 4 white Number Cubes, arranges them into a number in his/her colored place value boxes, and moves the appropriate spaces.

The player then draws a Dino Action Number Card and reads it, moving his dinosaur(s) the correct number of spaces forward or backward. The card is then placed face-up in a discard pile on the right-hand rock in the center of the Game Board.



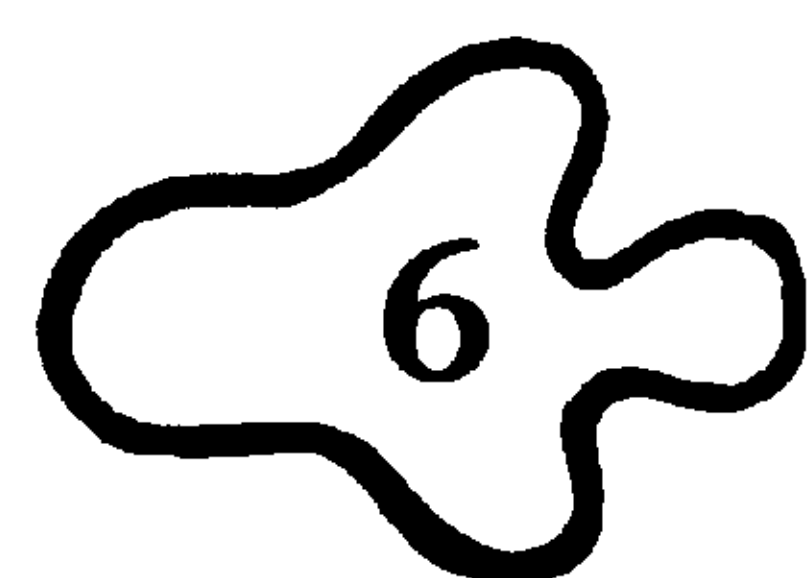
3. Play passes to the next player on the left. Each player follows steps 2-6.
4. If a player's dinosaur lands on the same footprint as another player, the two players have a **"Showdown."** Each tosses the green Number Cube. The player with the larger number wins and moves his dinosaur forward that many spaces.

Players must first move all dinosaurs according to their roll before completing any necessary **Showdowns**.

5. The first player to get all four dinosaurs under Rainbow Bridge wins the game.
6. When players run out of Dino Action Number Cards, the pack is shuffled and placed face down again.

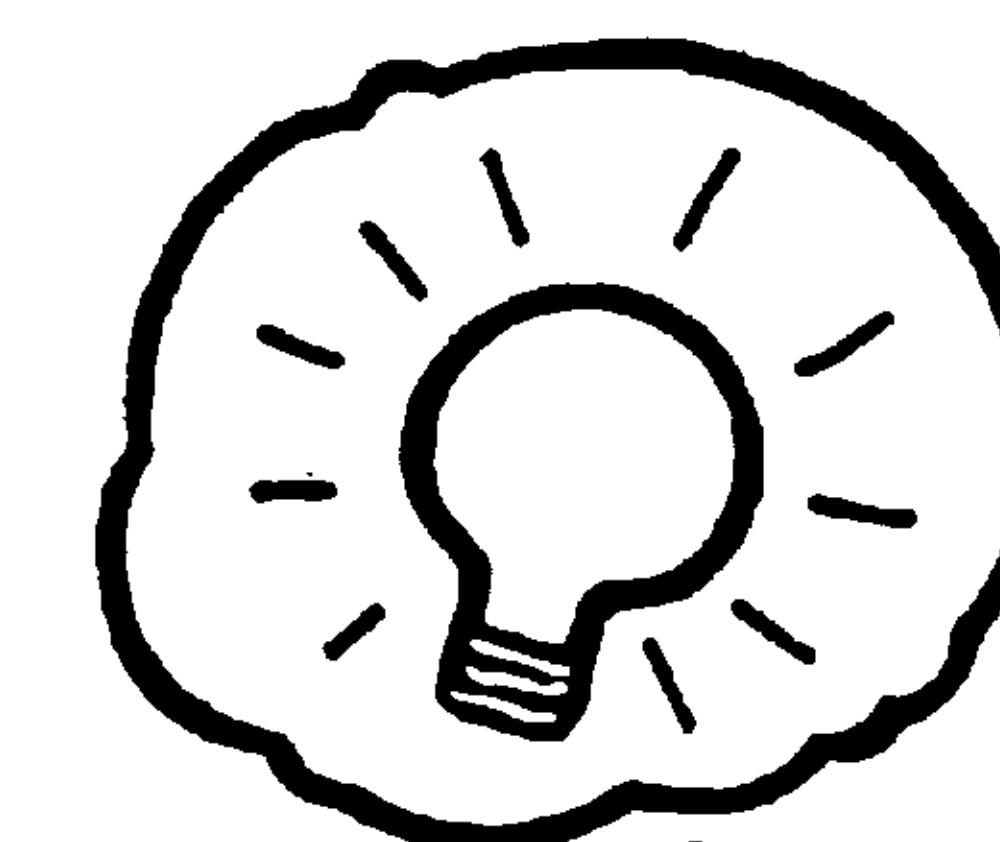
Game Variations:

- ◆ Dino Math Action can be simplified by omitting the white Number Cubes (Step 2) from play. During their turn, players simply pick up the top Dino Action Number card, and move their dinosaurs accordingly.
- ◆ Add "all or nothing" excitement to Showdowns (Step 4) by sending the player who loses the Showdown roll back to START. The Showdown winner gets to stay on the disputed footprint. Note: This extends the play of the game.



Dino Math Tracks™

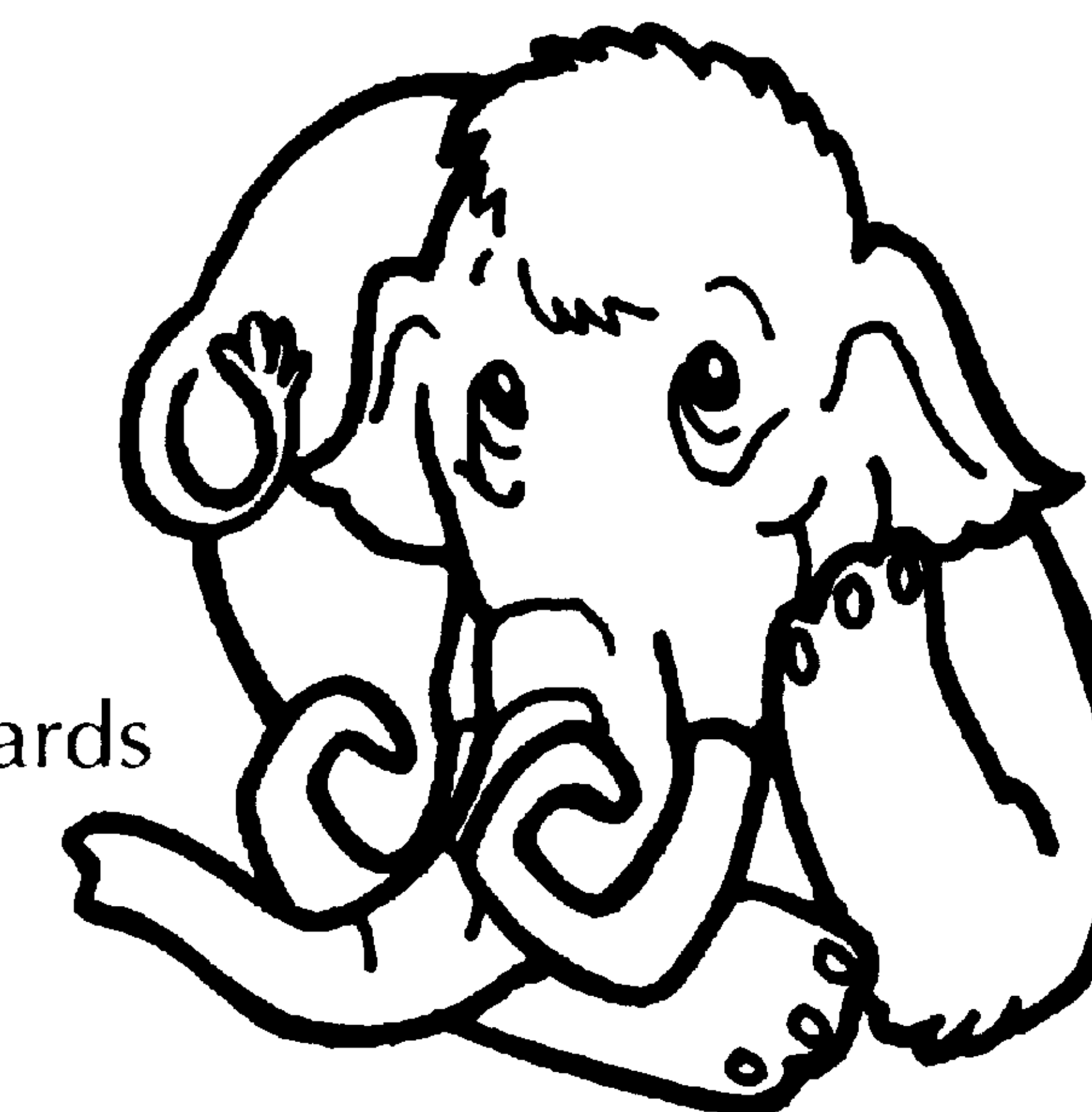
Game 3:



Prehistoric Problem-Solving

- Materials:**
- Game Board
 - Dinosaur Playing Pieces
 - 4 White Number Cubes
 - 1 Green Number Cube
 - 36 Dino Problem-Solving Cards

Players: 2-4 players, ages 7 and up



Getting Ready:

Shuffle the Dino Problem-Solving Cards and place the pack face down on the left-hand rock in the center of the Game Board. Each player chooses one herd of dinosaurs and places all 4 playing pieces in the appropriate corner.

Playing the Game:

1. Players each roll the green Number Cube. Player with the largest number starts the game.
2. The first player rolls all 4 white Number Cubes, arranges them into a number in his/her colored place value boxes, and moves the appropriate spaces.

The player then draws a Dino Problem-Solving Card and reads it, moving his dinosaur(s) the correct number of spaces forward or backward. The card is then placed face-up in a discard pile on the right-hand rock in the center of the Game Board.



3. Play passes to the next player on the left. Each player follows steps 2-6.
4. If a player's dinosaur lands on the same footprint as another player, the two players have a **"Showdown."** Each tosses the green Number Cube. The player with the larger number wins and moves his dinosaur forward that many spaces.

Players must first move all dinosaurs according to their roll before completing any necessary **Showdowns**.

5. The first player to get all four dinosaurs under Rainbow Bridge wins the game.
6. When players run out of Dino Problem-Solving Cards, the pack is shuffled and placed face down again.

Game Variation:

- ◆ To encourage cooperation and team work, have all players work the problems simultaneously.
- ◆ For added challenge, have children create their own word and story problems using a dinosaur theme.

Solutions for Dino Problem-Solving Cards:

- | | |
|-----------------------|-----------------------------|
| 1. forward 40 | 19. 250 kilometers |
| 2. forward 2000 | 20. (this year -1899) |
| 3. back 2 | 21. 2 fewer neck bones |
| 4. back 100 | 22. 44 feet longer |
| 5. 30 | 23. 30 feet longer |
| 6. 15 spaces | 24. 30 tons |
| 7. 1123 kilometers | 25. Triceratops, 2 fewer |
| 8. forward 1000 | 26. Suzy, 11 meters |
| 9. forward 10 | 27. Brachiosaurus, 2 inches |
| 10. 375 miles | 28. 3003 times |
| 11. 1000 miles | 29. 70 pounds an hour |
| 12. 120 kilometers | 30. 90 leaves |
| 13. 160 blocks | 31. 5 each minute |
| 14. 410 animals | 32. 12 dinosaurs |
| 15. 2232 pies | 33. 13 trucks |
| 16. 1122 all together | 34. 2 dinos on each |
| 17. 211 dinosaurs | 35. 24 horns |
| 18. 1000 plants | 36. 14 toes in all |