

# Tumbletown Tales Parent and Teacher Information



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# Flower Frenzy

Patterning the interactive way! Help Tumbleweed plant his garden while practicing your patterning skills.

## Curriculum Connections

Flower Frenzy is about patterns, patterns, and more patterns! The first two levels test your ability to find a set floral pattern in a field of different flowers. The last level incorporates a two-step operation, where kids need to find a possible floral pattern, and then have to switch positions of two flowers in order to achieve the pattern. This activity is sure to have your child patterning all day long!



### Grade 2

#### Mathematics

- identify, extend, and create number, geometric, and measurement patterns, and patterns in their environment
- recognize that patterning results from repeating an operation (e.g., addition), using a transformation (slide, flip, turn), or making some other change to an attribute (e.g., position, colour)
- identify patterns (e.g., in shapes, sounds)

### Grade 3

#### Mathematics

- recognize that patterning results from repetition
- identify, extend, and create linear and non-linear geometric patterns, number and measurement patterns, and patterns in their environment

## Maximize Your Child's Learning

- Take turns playing the first two levels with your child. Record your times, to show your child that sometimes a little bit of competition can be fun!

- Refer to the "hint" button with your child. Is your child quick to ask for a hint or not? Ask your child why he/she needed the hint. If your child uses the hint button often, challenge him/her to get through a level without clicking on the "hint" button.
- When playing the "Pro Planter" level with your child, take turns finding the patterns of three flowers the same, and keep track of how many triplets you each find!

## More Activities

Below are some great ways to extend the learning into other curriculum areas in order to make this math experience a meaningful one for your child!

- **Here's a great musical patterning idea for you!** You can play this little game with as many kids as you'd like. Stand in a circle, and choose someone to go first. Ask each child to put together a three-step musical pattern (such as clap, snap, clap). Once the child has shown the rest of the group his/her pattern, everyone does the same. Continue with all the kids until everyone has had an opportunity to make his/her own musical pattern, and then try to put them all together!
- **Art and patterning go hand in hand.** Find yourself enough large-squared graph paper for you and your kids. Make sure you have lots of crayons or markers near by. Silently, each person decides on a specific pattern (not too long) and colours it on the graph paper (such as blue, red, yellow, yellow, red, blue). Once everyone has made their initial pattern, trade papers to the right, and the next person has to follow the same pattern. Continue along until the entire page has been filled.
- **Patterning in everyday life!** You can do this activity on a field trip, or with your child while you're driving in the car or walking through the neighbourhood! You

will need a pencil, pencil crayons, and something to write on like a notebook (blank or lined, it doesn't really matter). On your trip or walk, have your kids record everything they see with a pattern! For example, if you see a building with lots of windows, your child would write the word "building with windows" and then would draw the pattern next to it (e.g., four windows followed by a beam, then four windows then another beam). Share your findings.

# Tumbletown Bound

Tumbleweed needs your help! Construct different pathways so Tumbleweed can get around Tumbletown.



## Curriculum Connections

You build the path for Tumbleweed!

Tumbletown Bound incorporates many areas of the math curriculum; geometry and spatial sense, problem solving and estimation, and touches on the "structures" component of the science curriculum. The key is to arrange different structures like buildings, trees etc. on the special Tumbletown grid in such a way so that Tumbleweed can travel on your path from point A to point B.

### Grade 2

#### *Mathematics*

- describe the specific location of objects on a grid or map (e.g., beside, to the right of).

#### *Science & Technology*

- identify changes in the position of an object in relation to other objects (e.g., movement upward or to the left)

### Grade 3

#### *Mathematics*

- describe how to get from one point to another on a grid (e.g., two squares right followed by one square up).

#### *Science & Technology*

- design and make structures that include mechanisms and that can support and move a load, and investigate the forces acting on them

## Maximize Your Child's Learning

- Take turns playing the game with your child. Take turns putting the pieces on the playing

board, or allow your child to complete the path once, then you have a turn completing the path.

- While your child is constructing his/her path ask questions like "what if you used a smaller piece here? Or do you think you could use one of those large building pieces here?".
- Talk to your child about different routes that he/she could use in the game.

## More Activities

- **Make driving to school as fun as possible!** Think about all the different routes you could take to get to school over the course of the week (you could also use destinations like the grocery store, granny's house, the library etc.) and write them on a piece of paper. Now it's time to conduct your research! Bring the list of routes along with a stopwatch/clock and a pencil. Chart how long each route takes, and be sure to include any side notes about delays along the way (such as construction, traffic lights not working, accident, etc). Which route was the best? Why?
- **Map and find!** You will need a partner for this activity. Using graph paper, map out the room that you will be using for the activity (i.e. classroom, kitchen, bedroom) make sure to include large objects found in the room like a stove, table or sofa. Take an object like a book or small toy and hide it somewhere in the room. Using the squares on the graph paper map, write a list of directions that your partner will need in order to find the object, such as 5 steps to the right, 3 steps straight, 2 steps to the left, turn around half way etc. Once the list of directions is complete, give your partner the direction list and the map. See how long it takes your friend to find the object using your homemade resources. Once your friend finds the object, it's your turn to find his/her object!

# Triangle Alley

Come visit Triangle Alley to play with some fun shape puzzles.



## Curriculum Connections

Problem solving and trial and error come together in this awesome shape game! Tumbleweed and Daisy call on your child to help them pack various shaped items into rectangular boxes (e.g., a cake box, a tool box, etc.). Engaging and fun, this interactive math game helps to hone your child's geometry and spatial skills and estimating skills!

### Grade 2

#### *Mathematics*

- explore and identify two-dimensional shapes using concrete materials and drawings (e.g., pentagon, hexagon, octagon)
- make a pattern using two-dimensional shapes (e.g., pattern blocks, tangram)

### Grade 3

#### *Mathematics*

- explore and identify two-dimensional shapes using concrete materials and drawings (e.g., rhombus, parallelogram)
- solve two-dimensional geometric puzzles (e.g., pattern blocks, tangram)

### Grade 4

#### *Mathematics*

- discover geometric patterns and solve geometric puzzles with and without the use of computer applications

## Maximize Your Child's Learning

- Challenge your child to a "shape-off"! Set the timer and see who can finish the puzzle sooner.
- See if your child can complete the puzzle

without using the "hint" button. If your child is reliant on the "hint" button, challenge him/her to use the button a certain amount of times (e.g., only three times).

## More Activities

- **You can print each one of these puzzles right from our site!** If you click the "extras" button you will find the puzzles from the online activity in printable format. Click and print, cut out the shapes, and put the shape puzzles together!
- **Need a fun art activity?** Go through some fun magazines with your child, and ask him/her to select a page to use for his/her puzzle. Glue the picture onto thin cardboard (a file folder or an empty cereal box should be fine). Once the glue is dry, cut the picture into different geometric shapes. Pass the puzzles around and figure out and put each other's puzzles back together again!
- This great mapping activity can also **help your child get organized!** On a piece of graph paper have your child draw his/her cupboard or cubby at school. On a separate, lined sheet of paper your child will list the items in the cupboard, and will make a drawing of each item, which he/she will cut out. Have your child "pack" the items into the cupboard, finding the best method possible to organize all the items. Have time for a large project? Empty all the contents of the cupboard, and rearrange the items according to the cupboard plans!

# Seed Ball

Help Tumbleweed get his seeds from his silo to the car by creating a cool path for him!



## Curriculum Connections

Seed Ball is a great way to introduce your kids to grids and plotting points on a grid, while also helping them meet the following expectations of the Ontario Curriculum.

### Grade 2

#### *Mathematics*

- describe location and movements on a grid
- describe the specific location of objects on a grid or map (e.g., beside, to the right of).

### Grade 3

#### *Mathematics*

- describe location and movements on a grid

### Grade 4

#### *Mathematics*

- demonstrate an understanding of coordinate systems and an ability to use them in simple games (e.g., battleship, bingo).

## Maximize Your Child's Learning

- Take turns playing the game with your child. You can either take turns finding the secret pieces, or take turns choosing the different pipes to use.
- See how many levels you can get to in 5 minutes. Take turns setting a kitchen timer!

## More Activities

- Use an atlas or other map book to extend the "plotting points" lesson even further! Take turns locating different locations on the maps using the letter/number grid for younger students

- and the latitude/longitude  
correspondence for older students.
- Using large squared graph paper, create your own grid. Place letters at the top, and numbers down the side. Tell your child to plot different items at different locations. For example, "Draw a circle at C6". Take turns being the caller and the mapper.