

# Everything Grows



## Did You Know?

Many natural patterns in the world exhibit a growth pattern of some sort. Children grow according to a predictable pattern (though not by equal amounts each year) as well. Modeling how patterns grow helps build an understanding of how these patterns work.

## Materials:

- Empty egg cartons or muffin tin with labels 1 to 12 on each compartment
- Beads, marbles, or beans to count

## How to Do It:

1. Act out a little story pretending the beans (or other objects) are the tomatoes and the compartments are the baskets to put the tomatoes in each day (see download).
2. Do you see a pattern in the number of tomatoes she picks? Continue the story following the pattern for 12 days. Find a way to predict how many tomatoes she would pick on any day (ex. Day 20).

## Questions to Ask:

- How many more tomatoes does Lucinda pick each day?
- How many tomatoes will she have total on the 10th day?
- What if she begins with 2 then 4 then 6...how many will she pick on the 10th day?

## What's Next:

- What would happen if the number of tomatoes doubled every day? How many would she pick on day 10?
- Use what you know about growing patterns to figure out this classic brain teaser. Which would you rather have? A million dollars or a penny the first day, 2 cents the second day, 4 cents the third day, 8 cents the fourth day, and so on, doubling the amount each day for 30 days.

