Activity 2 Assessment
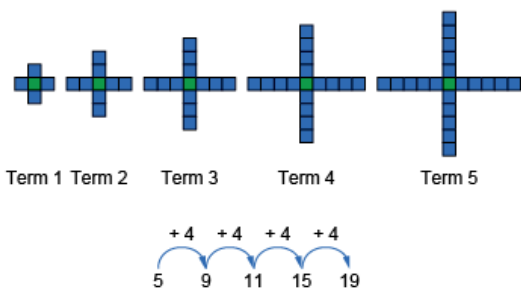## Investigating Number Patterns
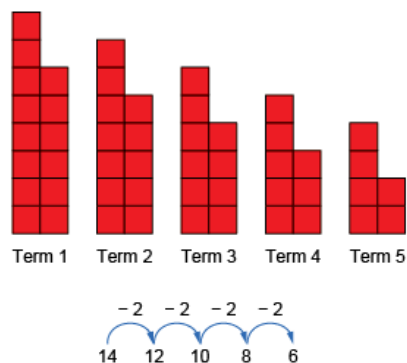
Number Pattern Relationships

Recognizes pattern relationships in increasing patterns.

Term 1 Term 2   Term 3   Term 4   Term 5

$+4$ $+4$ $+4$ $+4$

5   9   11   15   19

"I see a skip-counting by 4 forward relationship in the pattern. The rule is: Start with 5 tiles and add 4 tiles each time."

Recognizes pattern relationships in decreasing patterns.

Term 1   Term 2   Term 3   Term 4   Term 5

-2 -2 -2 -2

14   12   10   8   6

"I see a skip-counting by 2 backward relationship in the pattern. The rule is: Start with 14 tiles and take away 2 tiles each time."

Identifies and describes pattern relationships in tables, charts, and diagrams.

Number of Bracelets	Number of Plain Beads	Number of Patterned Beads
1	4	12
2	8	24
3	12	36
4	16	48

"The rule for the number of plain beads is: Multiply the number of bracelets by 4: $4n$. I see number relationships: $1 \times 4 = 4$, $2 \times 4 = 8$, $3 \times 4 = 12$, $4 \times 4 = 16$."
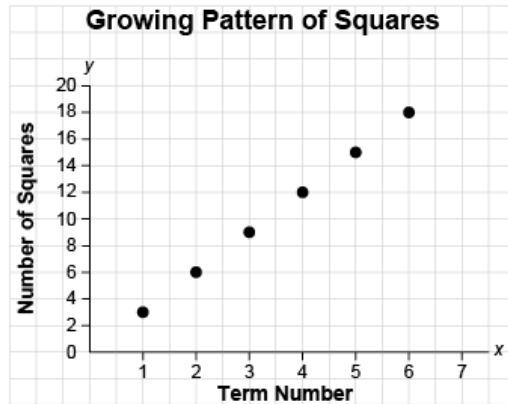
Observations/Documentation

Number Pattern Relationships (cont'd)

Identifies and describes pattern relationships on graphs.	Describes patterns to illustrate the relationships among whole numbers and decimals with tenths and hundredths.	Fluently identifies and describes different patterns in a variety of representations.

Growing Pattern of Squares

"The graph shows the pattern rule: Start with 3 squares.
Multiply the term number by 3 each time.
The expression $3t$ describes the pattern relationship."

$$9.00 + 0.5 + 0.06 = 9.56$$
$$9.00 + 0.4 + 0.16 = 9.56$$
$$9.00 + 0.3 + 0.26 = 9.56$$
$$9.00 + 0.2 + 0.36 = 9.56$$
$$9.00 + 0.1 + 0.46 = 9.56$$
$$9.00 + 0.0 + 0.56 = 9.56$$

"I noticed a pattern: As the second addend decreases by 0.1, the third addend increases by 0.10, so the sum stays the same."

Day	Number of Pushups	Number of Star Jumps
1	10	12
2	13	15
3	16	20
4	19	27
5	22	36
6	25	47

On which day will 40 pushups be completed?

"I wrote an expression for the pattern rule using multiplication: $3d + 7$, where d is the day number. I substituted values for d until I got 40: $3 \times 11 + 7 = 40$; Day 11."

Observations/Documentation