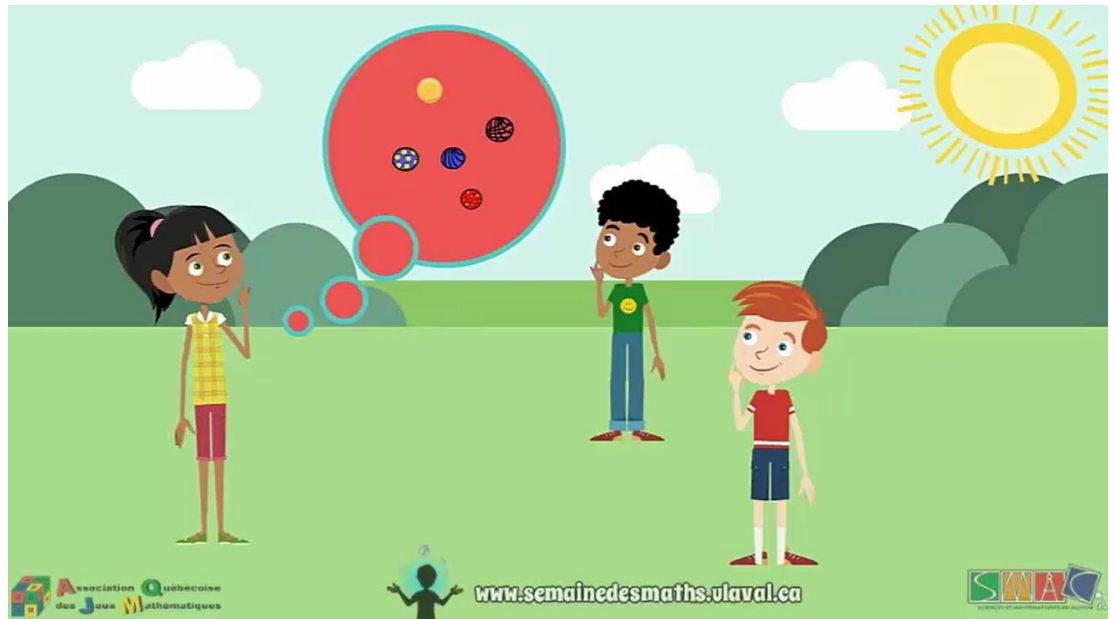# PUZZLING CARTOON

- LILY'S MARBLES -

AMAZINGMATHS

Materials:

- Video of the puzzle
- Sheets of paper
- Pencils

The puzzle

Every Monday, Lily goes to the park to play marbles with her friends. The first Monday, Lily wins and adds 3 marbles to her collection. The second Monday, she wins again and adds 6 marbles to her collection. The third Monday, Lily wins once again and adds 9 marbles to her collection.

If she maintains that pace, how many marbles will Lily add to her collection the 7th Monday?

Association Québécoise des Jeux Mathématiques

SMAC SCIENCES ET MATHÉMATIQUES EN ACTION

PUZZLE SOLUTION

The answer:

The 7th Monday, Lily will add 21 marbles to her collection.

The solution:

To solve this puzzle, we have to look at the number of marbles won each Monday as a logical sequence.

We know that the 1st Monday, Lily wins 3 marbles, the 2nd Monday she wins 6 marbles and the 3rd Monday, she wins 9 marbles. We are looking for the number of marbles she will win the 7th Monday, but we do not know the other numbers that complete this sequence.

Monday	1st	2nd	3rd	4th	5th	6th	7th
Number of marbles won	3	6	9	?	?	?	?

If we look carefully at the table, we see that the 2nd Monday, Lily won 3 more marbles than the 1st Monday (6 – 3 = 3). We can make the same observation between the 2nd Monday and the 3rd Monday. Lily won 3 more marbles the 3rd Monday than the 2nd Monday (9 – 6 = 3).

To complete the sequence, we must **skip count by 3** until we reach the 7th Monday. So, we have to make 4 additional jumps of 3 to get the answer.