



EPISODE 301

ODD BEGINNINGS PART 1

Watch as your fellow agents go on a top secret mission to find THE legendary lucky 44-leaf clover! How do they find out where it's located?

CASE SUMMARY

CASE: Find and save the legendary Odd Artifact—the 44-leaf clover.

OUTCOME: We unlocked a secret chest to find the map to the 44-leaf clover. We used Omar's souvenir to measure the right rectangle that opened up the chest and then used a fulcrum and lever to get by the huge tape wall that was blocking the exit!

COLD CASE EXTENSION ACTIVITY

Something VERY ODD has happened! Rulers are walking and talking and their numbers are all scrambled! In order to make them go back to normal, you must:

1. Find 1 object that is the same size as your favourite stuffed animal.
2. Find 1 object that is the length of TWO of your stuffed animal.
3. Find 1 object that is HALF the size of your favourite stuffed animal.
4. See if you have a ruler in your house and measure the length of your favourite stuffed animal and all 3 items that you found!

TIP: Record your findings in a chart like this!

OBJECTS	LENGTH IN CENTIMETRES
Favourite Stuffed Animal	
Object 1	
Object 2	
Object 3	



SYNOPSIS FOR TEACHERS/PARENTS:

In this episode Agent Opal and Agent Omar go on a mission to find and save the legendary Odd Artifact—a 44-leaf clover. During their mission they encounter several obstacles that require them to 1) use measurement skills and measurement tools and 2) use simple machines such as pulleys, to achieve their mission.

This episode teaches children how they can use conventional measurement tools, such as rulers, to measure items, and also unconventional measurement tools, such as objects, to measure different things. It also introduces children to the effectiveness of using simple machines.

CURRICULUM EXPECTATIONS:

Grade 2 Science – Understanding Structures and Mechanisms: Movement

- 1.1** Assess the impact on society and the environment of simple machines that allow movement (e.g. common mechanisms and simple machines make it easier to carry out tasks that require movement because less force is needed).
- 2.3** Investigate the structure and functions of simple machines.
- 3.3** Identify the six basic types of simple machines—lever, inclined plane, pulley, wheel and axle—and give examples of ways in which each is used in daily life to make tasks easier.
- 3.4** Describe how each type of simple machine allows humans to move objects with less force than otherwise would be needed.

Grade 1 Mathematics: Measurement

Demonstrate an understanding of the use of non-standard units of the same size for measuring.

Construct, using a variety of strategies tools for measuring length, heights, and distances in non-standard units.

Compare two or three objects using measurable attributes and describe the objects using relative terms.

Compare and order objects by their linear measurements, using the same non-standard unit.

Grade 2 Mathematics: Measurement

Estimate and measure length, height and distance, using standard units and non-standard units.

Select and justify the choice of a standard unit (i.e. centimetre or metre) or a non-standard unit to measure length.

Compare and order a collection of objects by mass and/or capacity, using non-standard units.

Grade 3 Mathematics: Measurement

Estimate, measure, and record length, height, and distance, using standard units.

Estimate, measure, and record the capacity of containers, using the standard unit of the litre or parts of a litre.

Compare and order objects on the basis of linear measurements in centimetres and/or metres in problem solving contexts.



THIS OR THAT!

QUESTION #1

If Agent Omar's souvenir is 30cm tall, which souvenir is his?



QUESTION #2

Which object is shorter than 20 cm?



QUESTION #3

Levers are made with a stick and a fulcrum. The fulcrum is the point on which the lever moves. In order to push the big tape wall with the lever, where should the fulcrum be placed?



1. Image 2. 2. Image 2: Having the fulcrum closer to the tape wall makes pushing it much easier!



TRUE OR FALSE

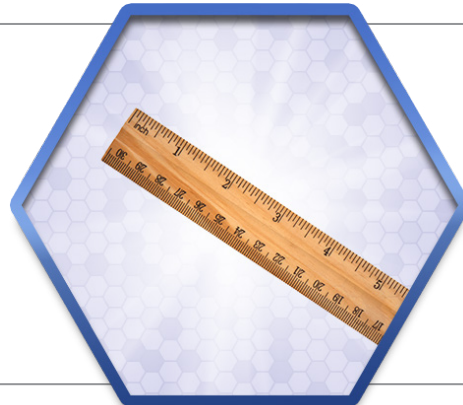
QUESTION #1

You will need THREE of Agent Omar's souvenirs to measure this treasure chest.



QUESTION #2

A ruler is used to measure size!
It can measure the length, height and width.



QUESTION #3

This 44-leaf clover is 10cm wide.



1. FALSE! Since one of Omar's souvenirs is 30cm long, using three of them would equal 90cm which is too long! BUT if you used two of them that would be 60cm which is the length of the chest! 2. TRUE! That's correct! A ruler is a useful tool to measure objects. 3. TRUE! Looking at the ruler you can see that this 44-leaf clover is indeed 10cm long.



COLUMN MATCHING

Rank the objects from smallest to largest – #1 being the smallest and #4 being the largest.

1



2



3



4



A



B



C



D



1. C 2. A 3. D 4. B



SEARCH AND FIND

Can you find the following?



Big. O



Sticky Sisters



Empire state souvenir



Omar



Bag O' Machines



Opal