EPISODE 310

SLOW YOUR ROLL

Watch as the Mobile Unit has to save their van from driving into the Lake of Goo! Will they crack all the word problems and beat the villain?

CASE SUMMARY

CASE: Save the Mobile Unit van from driving into the Lake of Goo by defeating villainous Shadow!

OUTCOME: We were able to slow the van down using different types of friction such as dirt, mud, and wind. We also were able to defeat the villain by gaining control back of our van computer by solving a bunch of word problems!

COLD CASE EXTENSION ACTIVITY

Something VERY ODD has happened! The lake of goo has exploded and has covered the entire neighbourhood! In order to get the goo back into the lake you must experiment with friction!

To complete your mission you will need the following materials:

1. A book.
2. A ruler (or tape measure).
3. Three different testing surfaces: a table/desk, carpet, tile/wood floor.

Once you have collected your materials, follow these steps:

1. Slide or push your book on each surface.
2. Measure the distance the book traveled on each surface using your ruler/ measuring tape.
3. Record what you found in a chart like this!

Shaw Rocket Fund Fuelling creativity
tvokids
SINKING SHIP ENTERTAINMENT

SURFACE	HOW FAR DID THE BOOK TRAVEL?
Table/Desk	
Carpet	
Tile/Wood	

SYNOPSIS FOR TEACHERS/PARENTS:

In this episode, the villain, Shadow, takes control over the Mobile Units' van and plans to destroy it. The agents must save the Mobile Unit van and get control of the van computer before they end up in the lake of goo! During their mission, they experiment using friction to slow the van down and solve several mathematical word problems to get to the room where the van computer is located.

This episode teaches children about friction and how different surfaces can make more or less friction when rubbing against another surface. It also teaches children how to strategically think through different mathematical word problems and how to logically solve them.

CURRICULUM EXPECTATIONS:

Grade 3 Science: Understanding Matter and Energy – Forces Causing Movement

3.2 Identify different kinds of forces

3.3 Describe how different forces (e.g. magnetism, muscular force, gravitational force, friction) applied to an object at rest can cause the object to start, stop, attract, repel, or change direction

3.5 Identify ways in which forces are used in their daily lives

Grade 1 Mathematics: Number Sense and Numeration

- Compose and decompose numbers up to 20 in a variety of ways, using concrete materials
- Solve a variety of problems involving the addition and subtraction of whole numbers to 20, using concrete materials and drawings.
- Solve problems involving the addition and subtraction of single-digit whole numbers, using a variety of mental strategies

Grade 2 Mathematics: Number Sense and Numeration

- Solve problems involving the addition and subtraction of whole numbers ro 18, using a variety of mental strategies.
- Represent and explain, through investigation using concrete materials and drawings, multiplication as the combining of equal groups.
- Represent and explain, through investigation using concrete materials and drawings, division as the sharing of a quantity equally.

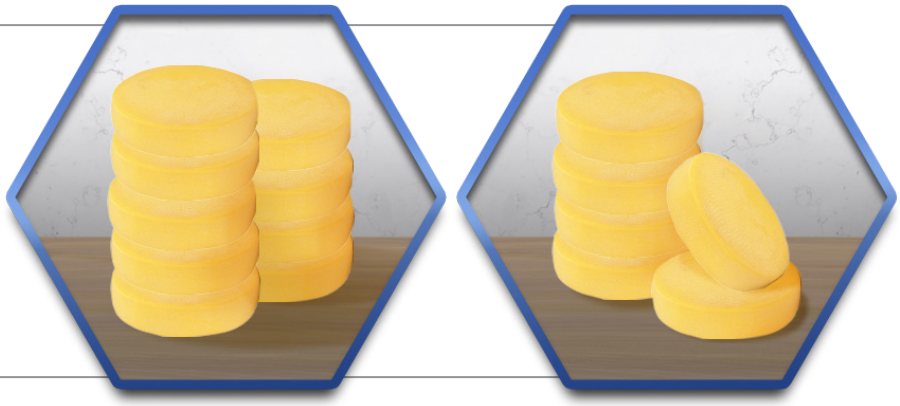
Grade 3 Mathematics: Number Sense and Numeration

- Solve problems involving the addition and subtraction of two-digit numbers, using a variety of mental strategies.
- Relate multiplication of one-digit numbers and division by one-digit divisors to real-life situations, using a variety of tools and strategies.
- Multiple to 7 x 7 and divide to 49/7, using a variety of mental strategies.

THIS OR THAT!

QUESTION #1

If Agent Opal ate 3 cheese wheels and Agent Orla ate 6. How many cheese wheels did they eat all together?



QUESTION #2

Agent Oswald is thinking of a number that is more than the number 5 but less than the number 7. Which number line is pointing to the number Agent Oswald is thinking of?

QUESTION #3

If Agent Omar collected 6 cobb salad wraps but 2 fell in the lake of goo when he was flying using his jet pack, how many cobb salad wraps does Agent Omar have left?

1. Image 1 (9). **2.** Image 2 (6). **3.** Image 2 (4).

TRUE OR FALSE

QUESTION #1

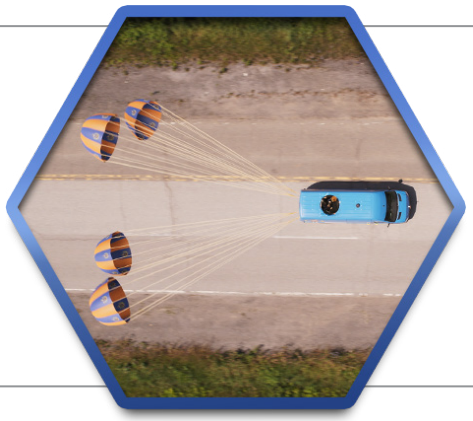
Friction is created when two surfaces rub against each other.

QUESTION #2

Mud creates less friction than dirt.

QUESTION #3

Parachutes use air resistance to slow down.



1. TRUE! You can create friction by rubbing things together! **2.** FALSE! Mud creates more friction than dirt because it's much stickier! **3.** TRUE! Wind acts as a force that slows parachutes down! It's a type of friction.

COLUMN MATCHING

Match the type of graph to the picture!

1

2

3

4

A

B

C

D

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

SEARCH AND FIND

Can you find the following?

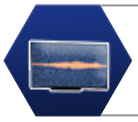
Cheese wheel

Jet pack

Cobb Salad Wrap

Parachute

Creature



Van computer