ANNEDROIDS

EPISODE 102

PAL N GO SEEK

A game of hide and go seek gets dangerous when the androids go into super-hiding mode! Can Anne, Nick and Shania find them in time to fix Pal's circuits?

EXPERIMENT SUMMARY

EXPERIMENT: Find all the androids playing hide-and-seek and find PAL before PAL's circuits burn out!

HYPOTHESIS: Since each of the androids are programmed to act like certain animals, we can use what we know about those animals to find the androids.

METHOD: Find each android one by one by acting like predators.

RESULT: We were able to find each of the androids and save PAL before PAL's circuits burnt out. Hand is programmed like an octopus, Eyes like a razor clam, and PAL like a deer!

CONCLUSION: Androids are really good hiding just like animals, but if you think like their predators you can find them!

EXTENSION ACTIVITY

MAKE A SIMPLE CIRCUIT

If you want something to work like your computer, a flashlight, a remote, the electricity needs to move through a circuit. A circuit is the path the electricity flows.

All circuits work the same way. Electricity leaves the source of its power, travels the path, and goes back to the other side of the power source in an unbroken path. For example, in a flashlight, the power leaves the negative end of the battery, travels through the wires to the bulb, then through more wires and back to the positive end of the battery.

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SINKING SHIP ENTERTAINMENT

MATERIALS YOU WILL NEED TO CREATE YOUR OWN CIRCUIT:

1. Aluminum foil
2. Tape (electrical or scotch tape)
3. A D-Cell battery
4. A small light bulb (maybe from a flashlight)

STEPS TO CREATE A CIRCUIT:

1. Cut two pieces of aluminum foil and fold them into strips, these will act as your “wires” for the circuit
2. Tape one of the aluminum strips to the positive end of the battery, and the other strip to the negative end of the battery
3. Touch one strip to the bulb, on the metal part just under the glass part of the bulb
4. Touch the other strip to the silver tip on the end of the bulb
5. The bulb should light up.

You have just created an unbroken circuit with your “wires”!

A circuit is the path the electricity flows. An easy way to help you remember that is to think of it like CIRcle since CIRcuit starts the same way!

SYNOPSIS FOR TEACHERS/PARENTS:

In this episode, Nick accidentally activates a security program that makes the androids go into super-hiding mode. Anne explains that PAL’s circuits are going to burn out if they don’t find PAL fast. Nick, Shania and Anne brainstorm a plan to find the androids.

This episode introduces children to concepts such as programming and circuits and continues to teach children about the scientific method and the importance of jotting down observations.

CURRICULUM EXPECTATIONS:

GRADE 2 SCIENCE – UNDERSTANDING LIFE SYSTEMS: GROWTH AND CHANGES IN ANIMALS

2.2 Observe and compare the physical characteristics and the behavioral characteristics of a variety of animals.

3.2 Describe an adaptation as a characteristic body part, shape, or behaviour that helps a plant or animal survive in its environment.

GRADE 6 SCIENCE – UNDERSTANDING MATTER AND ENERGY: ELECTRICITY AND ELECTRICAL DEVICES

2.1 Follow established safety procedures for working with electricity.

2.2 Design and build series and parallel circuits, draw labelled diagrams identifying the components used in each, and describe the role of each component in the circuit.

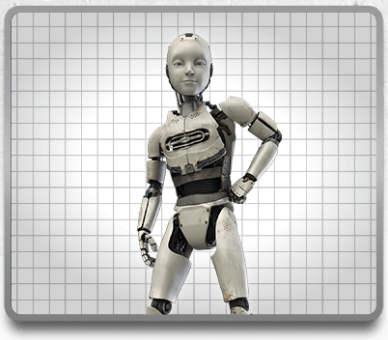
2.5 Use technological problem-solving skills to design, build, and test a device that transforms electrical energy into another form of energy in order to perform a function.

2.6 Use appropriate science and technology vocabulary, including current, battery, circuit, transform, and energy, in oral and written communication.

3.6 Explain the functions of the components of a simple electrical circuit.

3.7 Describe series circuits (components connected in a daisy chain) and parallel circuits (components connected side by side like the rungs of a ladder), and identify where each is used.

MULTIPLE CHOICE



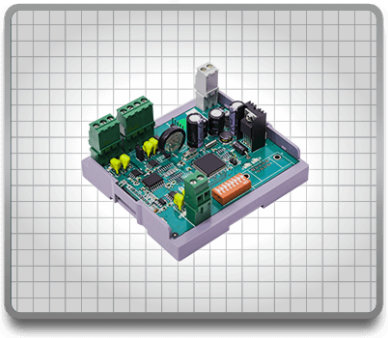
QUESTION #1: WHY DO ANDROIDS NEED TO REST?

A. To have enough energy to eat.

B. They'll burn out (in flames and fire!) if they don't get a chance to cool down each day.

C. They'll get tired and sleepy.

D. They don't need to rest!



QUESTION #2: ANNE WAS WORRIED THAT PAL'S CIRCUITS WOULD BURN OUT IF THEY WEREN'T REPLACED. WHAT IS A CIRCUIT?

A. A complete path around which electricity can flow. It must include a source of electricity, such as a battery.

B. An entertainment show with musicians, clowns, and animals!

C. A type of tool that can cut electrical wires.

D. A tool people use to protect buildings from getting zapped.

QUESTION #3: ANNE PROGRAMMED HER ANDROIDS TO GO INTO HIDE MODE. WHAT DOES IT MEAN TO "PROGRAM" SOMETHING?

A. To create a circuit.

B. To change the batteries.

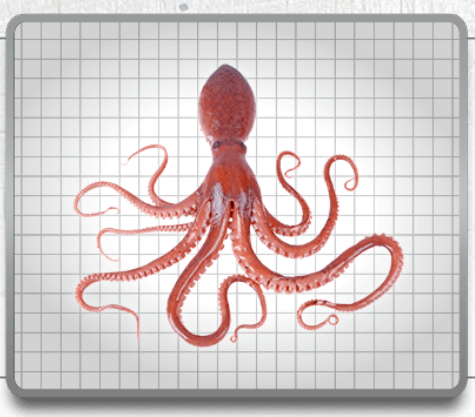
C. To play a video game.

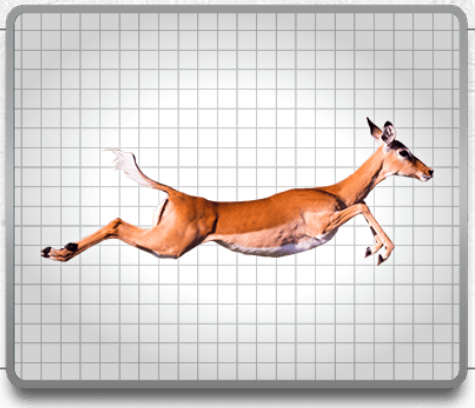
D. To create a set of instructions that are written in a language that the computer can understand and follow.

1. B 2. A 3. D

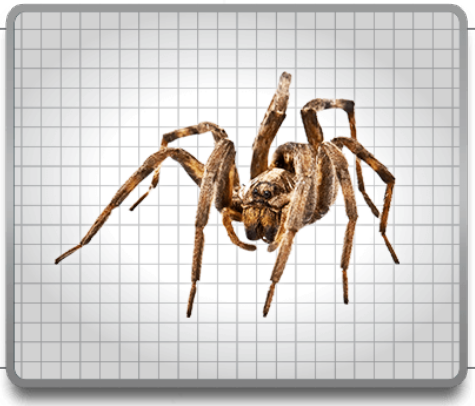
THIS OR THAT!

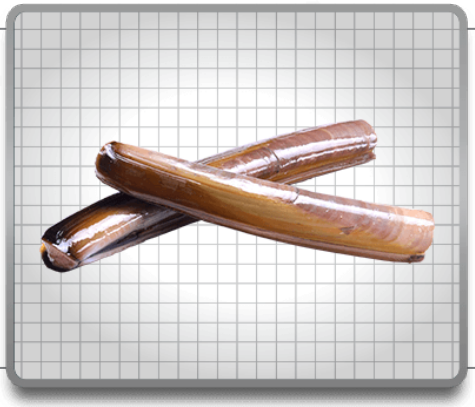
QUESTION #1:
This is a large animal that can get into super tiny spaces so predators can't find them.



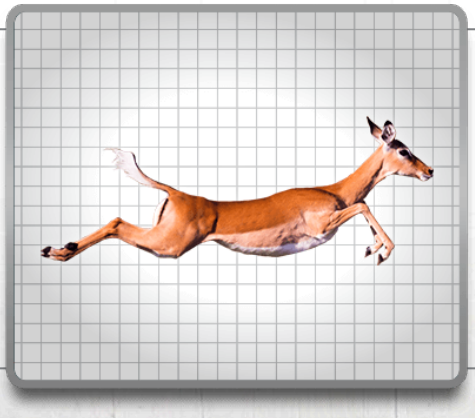


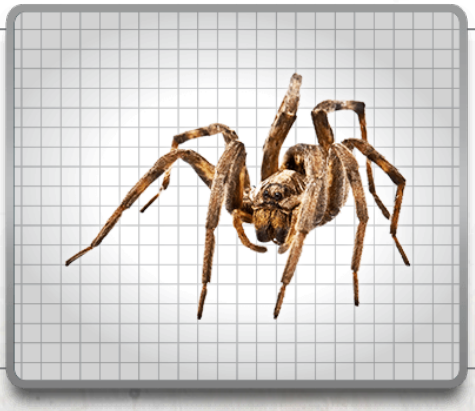
QUESTION #2:
This animal digs into the sand to get away from predators.





QUESTION #3:
This animal can run really fast to get away from wolves and bears.





1. Octopus (Image 1). **2.** Razor Clam (Image 2). **3.** Deer (Image 1).

TRUE OR FALSE

Grownup–fold this part over before handing to a child!

QUESTION #1:

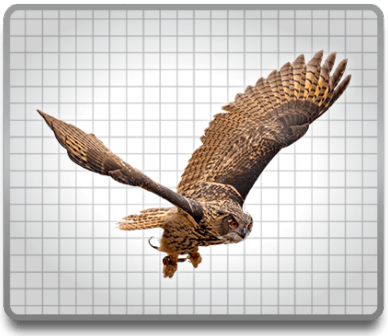
Some predators hunt by following the trail that the prey left behind.

TRUE!

Some predators hunt by following the trail that the prey left behind.

QUESTION #2:

Birds of prey find their food from the sky.

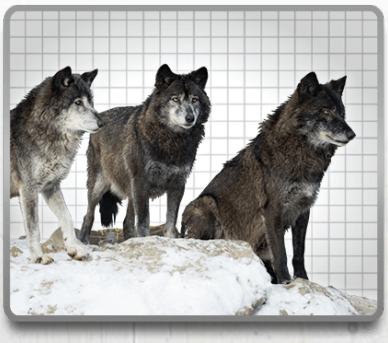


TRUE!

Since birds can fly, they can look down and find their food from high above.

QUESTION #3:

To catch a deer wolves work alone to force prey into the open.



FALSE!

Wolves work together as a pack!

COLUMN MATCH

Match the following!

1

SPIDER ROBOT

2

HAND

3

EYES

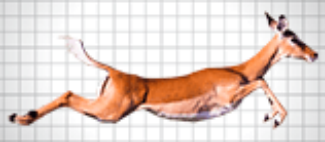
4

PAL

A

RAZOR CLAMS

B



DEER

C

OCTOPUS

D

WOLF SPIDER

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

SEARCH AND FIND

Can you find the following?

Hand

Eyes

PAL

Screwdriver

Pizza

Spider Robot