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BEFORE

WITH YOUR STUDENTS, DISCUSS YOUR SCHEDULE FOR THE DAY AND THE WORKSHOPS, SHOWS OR FILMS YOU PLAN TO ATTEND. DIVIDE STUDENTS INTO GROUPS WITH ONE ADULT ASSIGNED TO EACH GROUP. TRY THE FOLLOWING ACTIVITY TO KICK START YOUR STUDENTS' CREATIVITY.

THINK LIKE A SCIENTIST: MEASURE YOUR REACTION TIME

What you need (for each student):

» Copy of reaction timer template (on back of sheet)
» Ruler or strip of stiff cardboard

What to do:

1. Cut out the reaction timer
2. Glue or tape it to a piece of stiff cardboard or a ruler.

To test your reaction time:

1. Rest your arm on a desk with your index finger and thumb stretched out.
2. Have a friend hang the reaction timer so the 'start' mark is lined up with your finger and thumb.
3. Your friend should drop the reaction timer without warning you. Try to catch the timer as quickly as possible.
4. Read the mark closest to your finger where you caught the timer.

What's happening:

When your friend drops the timer, you see it start to move. A nerve signal travels from your eye to your brain then to your finger muscles. Your finger muscles move to catch the timer. The whole process takes between 150 and 220 milliseconds.

What to do next:

There are a lot of interesting questions you can ask about reaction time. Pick one or ask one of your own and design an experiment to find out the answer.

» Do adults react more quickly or more slowly than kids?
» Does your reaction time improve with practice?
» Do students who play sports have faster reaction times?
» Do students who play musical instruments have faster reaction times?
» How does your reaction time change if you use your peripheral vision?

CURRICULUM LINKS

Human Body
Processes & Skills of Science

DURING

Distribute Science Safari sheets to guide explorations.

- » Science Safaris are designed to lead your students to explore many of our exhibits.
- » The questions focus on topics from the BC curriculum for your grade.
- » There's no need to answer the questions in the order they appear. Start each group
- » of students in a different gallery. Remind students that the Science Safari is not a race.
- » Use the questions that students invent themselves and their responses to the open-ended questions to spark discussion when you return to school.

Or, download and distribute Math Trail sheets.

A Math Trail is a set of self-guided mathematical challenges using exhibits at TELUS World of Science

FOR SCIENCE SAFARIS AND MORE ACTIVITIES, VISIT SCIENCEWORLD.CA/SELFGUIDED

AFTER

CURRICULUM LINKS

Light & Sound

RESOURCES

Classroom Activities

Science Is by Sandra Bosak (Scholastic, 1991)

References

Conceptual Physics by Paul Hewitt

The Way Things Work by David MacAulay

Sound

exploratorium.edu/listen/index.php *Classroom & Online Activities*, short videos about sound and listening

TRY THIS AT SCHOOL: BUILD YOUR OWN BODYWORKS

Create your own human performance challenges and experiments for your classmates.

What you need:

- » Stopwatch
- » Metre stick
- » Sticky notes
- » Reaction timer
- » Paper and drawing materials

What to do:

1. Brainstorm ways in which you can make versions of the BodyWorks challenges using simple equipment.
2. Set up the challenges in a gym or playing field and invite other classes to participate.
3. Keep records of people's scores. Use these statistics to answer questions like: can Grade 5's jump higher than Grade 4's? Do students have steadier hands than teachers?

Here are some suggestions for stations:

Reaction time: Use the reaction timer you made before you visited TELUS World of Science.

Balance: How long can you balance an upside-down broom on the palm of your hand? How long can you stay upright on a balance board?

Endurance: How long can you hold a ball over your head?

Leg Strength: Hold a sticky note in your hand and jump to stick it to the wall. How high can you place the note?

Flexibility: Can you fit into a cardboard computer box?

Steadiness of Hand: Draw a simple maze and make many copies. How long does it take to draw your way through a maze with a fat marker? Deduct points if you hit the lines.