

YOUTH ENERGY SAFETY

PROGRAM GUIDE



Dear Presenters,

Welcome to TC Energy's Youth Energy Safety (YES) Program. At TC Energy, we believe staying safe around energy and pipeline infrastructure is a lesson that can start early—and last a lifetime. There's a lot happening underground that connects you to the internet, energy, clean water and more. We all play a role in keeping ourselves, our families and our communities safe.

Underground lines like pipelines, cables and water systems are an important part of everyday life—but if damaged, they can pose serious safety risks. That's why TC Energy's **Youth Energy Safety (YES)** Program introduces pipeline safety education to students at an age when curiosity and awareness are growing

The program is delivered through an asynchronous video that signals when to pause, allowing presenters to use the corresponding prompts and questions provided in the guide to lead meaningful discussion. Designed for students in Grade 3-5, the YES brings an interactive, age-appropriate lesson into the classroom. Students learn how to stay safe around underground infrastructure at home, at school and in their communities—while encouraging families to join the conversation.

Sincerely,

The Canadian Public Awareness Team

youthenergysafety@tcenergy.com



PROGRAM PREPARATION & CHECK LIST

Before the presentation:

- ☐ Review the guide in full to familiarize yourself with key pipeline safety messages presented in the program
- ☐ Confirm the “Meet Pipeline Pat” video is accessible
- ☐ Test audio and visual equipment
- ☐ Choose activity sheet(s) appropriate for your students
- ☐ Print enough copies of the following:
 - Student activity sheet(s)
 - Parent Letter / Take-home activity

During the presentation:

- ☐ Introduce Pipeline Pat to the students
 - Today, we’re going to meet a TC Energy friend named Pipeline Pat, who will guide us through important lessons about pipeline safety and how we can all play a role in staying safe.
- ☐ Play the video for the class
- ☐ Pause when prompted to “PAWS here”
 - Use the corresponding prompts in this guide to lead classroom discussion.
 - Each pause includes a learning goal and an answer that will be reinforced once the video resumes.
- ☐ Encourage student participation and responses
- ☐ Resume the video after each discussion

After the presentation:

- ☐ Distribute printed activity sheets and allow students to complete in-class
- ☐ Send home parent letter and take-home activity
 - Encourage families to complete the take-home activity together and submit photos of Pipeline Pat in action!
 - Parents can submit photos of Pipeline Pat in action via youthenergysafety@tcenergy.com.
- ☐ Hand out student giveaways (if applicable)
- ☐ Confirm classroom participation via youthenergysafety@tcenergy.com.

LESSON OVERVIEW

Pipeline Pat is your guide to understanding how pipelines work and how to stay safe around them.

Through a short video journey from a field location to home, Pat shares key pipeline safety messages to students, helping them connect what's happening underground to their everyday lives.

Along the way, students learn:

- What a right-of-way is and why it needs to stay clear
- How to spot pipeline safety signs
- Why using Click Before You Dig is the smartest move
- What the colorful utility flags mean
- How to recognize signs of a natural gas leak



QUESTION 1:

Can you think of a reason why it is important to keep a right-of-way clear?

Learning goal: Help students understand the idea of “clear space = safety” using familiar examples.

Prompts	Answers
Why do you think schools keep hallways clear instead of putting furniture in the middle?	So people can walk safely and get where they need to go.
Why do fire trucks need clear roads?	They need a clear path to reach emergencies quickly and safely.
What might happen if desks were in the hallways or cars blocked a fire truck?	People or emergency workers wouldn't be able to get through, and someone could get hurt.
What is under the ground in the clear area Pipeline Pat showed us?	Pipelines transporting natural gas, providing the energy we rely on.
If something important is underground, why is it important to keep the area clear?	The right-of-way should be kept clear because: • The placement of a fence post, the weight of a shed, or even tree roots can damage a pipeline now, over time, or when the items are eventually removed. • These things can also make it harder for TC Energy to reach the pipeline when they need to fix it or respond to an emergency.

Video answer: It's important to keep the right-of-way clear because under that land is a pipeline! And we need to keep the land clear about 10 meter on each side of the pipeline to keep it safe.

QUESTION 2:

Can you think of some things that should NOT go on a right-of-way?

Learning goal: Help students understand that objects placed on the right-of-way can block access, cause damage, or create safety risks, especially when something important (like a pipeline) is underground.

Prompts	Answers
Why don't we put playground equipment in the middle of the roads?	It wouldn't be safe to play, and people wouldn't be able to get through.
Why aren't trees planted in the middle of highways?	Cars need clear space to drive safely, and trees would get in the way.
If a shed or small building was added to a right-of-way, would it be easy to access what's underground?	It would be hard because the building would block access.
What might happen if Pipeline Pat needed to fix something underground, but something was in the way?	Repairs could be delayed, and it could create unsafe situations.
Can anyone name one thing that should NOT be on a right-of-way, and tell us why?	Fences, sheds and big trees are a few things that can damage the pipeline now or later.

Video answer: Fences, sheds and big trees are a few things that can damage the pipeline now or later. If workers need to fix something or check the pipeline, they need easy access—so it's important to keep the right-of-way clear!

QUESTION 3:

What do you think could happen if pipeline markers are ignored?

Learning goal: Help students understand that pipeline warning sign keep people safe but ignoring them or digging near them can cause serious and dangerous situations. If any digging is planned, the safest thing to do is click before starting the project.

Prompts	Answers
Why is it unsafe to ignore stop signs or school zone signs?	Ignoring signs can cause accidents. These signs warn us to slow down or stop to stay safe, but they do not tell us everything.
What information is on a pipeline warning sign?	Pipeline warning sign tell us: • Operator’s name • Emergency phone number • Products in the pipeline
Who knows what information is not shared on a pipeline warning sign?	Pipeline warning sign do not tell us: • Exact spot a pipeline is located • How deep a pipeline is buried
What should someone do if they see a pipeline marker and want to dig nearby?	Click Before You Dig.

Video answer: Ignoring pipeline warning signs or digging near them can cause big problems and even dangerous situations. It’s also against the law to remove a pipeline marker. If any work needs to happen near a pipeline warning sign or underground, always call or Click Before You Dig first. It’s free to call, it’s the law, and it keeps everyone safe!

QUESTION 4:

Do you know when the best time is to Click Before You Dig?

Learning goal: Help students remember to always Click *Before* You Dig.

Prompts	Answers
When do you think someone should Click Before You Dig? Before or after digging? Why?	Before you dig. To keep pipelines and communities safe.
What kinds of digging projects can you think of happening at home or school?	Planting trees or flowers, building fences or installing a playground.
What could happen if someone digs without using Click Before You Dig first?	Pipelines can get damaged and create unsafe conditions for community members.

Video answer: Always Click Before You Dig! Digging without checking is the number one reason pipelines get damaged. So, to keep everyone safe, remember C.A.R.E:

- Click Before You Dig.
- Allow the appropriate time for a response which is specific to the province you live in.
- Respect the marks once someone comes out to inspect the area.
- Excavate or dig carefully.

QUESTION 5:

Have you ever seen colorful flags or paint on the ground? Do you know what these mean?

Learning goal: Help students recognize utility flags and understand that different colors mean different utilities underground, keeping workers and communities safe.

Prompts	Answers
Who has seen colorful flags in the ground? Where have you seen these flags?	Students may have seen the flags near roads, yards or construction areas.
What color flags have you seen before?	White, pink, red, yellow, blue, green, orange and purple
Why do you think those flags are placed in the ground?	To warn people that something important is underground.
Do you think all the colors mean the same thing? Why or why not?	No. Each color has a different meaning to show what kind of utility is underground.
Why would workers need to know this information before digging?	So they don't hit or damage something when working and everyone stays safe.

Video answer: Every color has its own meaning! When you call 811 to locate a pipeline, these colors tell us what's hiding underground.

Electric power lines, cables, conduit – what makes lights turn on in your house

Gas, oil, petroleum – powers gas stoves to cook yummy food, heats your home and your water

Communications – how you watch TV, play video games and talk on the phone

Potable water – clean water that you can drink from the faucet

Sewer, drain lines – carries wastewater away when you flush the toilet

Temporary survey – help workers measure and plan where things go before digging

Proposed excavation – someone plans to dig here soon

Reclaimed water, irrigation, slurry lines – can be used to water plants and keep gardens green

QUESTION 6:

Do you know how to tell if there’s a gas leak?

Learning goal: Help students understand how to recognize a possible natural gas leak using their senses and know what to do to stay safe.

Prompts	Answers
What senses do you think can help us recognize a gas leak?	Nose, eyes and ears
How would you use your nose, eyes and ears to recognize a gas leak?	Allow students to think about what they might smell, see and hear.
If something smells, sounds or looks weird, what should you do?	Move away immediately and remember to tell an adult right away.
If you think there is a gas leak, should you investigate it?	No, stay far away.

Video answer: Yes, you can use your senses!

- Use your nose to smell a gas leak. Natural Gas often smells like rotten eggs or a skunk.
- Use your eyes to see dead plants, bubbling water, or dirt blowing up. These are all signs there may be a gas leak.
- Use your ears to listen for a hissing or roaring sound because that’s what a natural gas leak might sound like.
- And ALWAYS remember, if you see, smell, or hear something weird, get far away and tell an adult right away!

ANSWER KEY

Underground Utility Color Code

1. White, 2. Pink, 3. Red, 4. Yellow, 5. Orange, 6. Blue, 7. Green, 8. Purple

Pipeline Safety Quiz

1. B, 2. B, 3. D, 4. B, 5. C, 6. B, 7. D, 8. C, 9. B

Pipeline Safety Word Search

J	U	T	I	L	I	T	Y	F	L	A	G	N	Y	N
P	L	W	A	K	S	D	L	Y	Q	U	W	D	V	L
M	C	T	T	S	Q	I	N	F	B	U	D	U	J	O
N	L	A	G	U	N	D	E	R	G	R	O	U	N	D
S	I	A	Y	W	O	L	I	C	M	F	W	P	D	Y
A	C	L	O	Q	F	F	Q	P	H	W	G	Q	L	O
F	K	L	U	E	Z	I	V	M	B	W	L	F	U	T
E	W	A	R	N	I	N	G	S	I	G	N	F	P	C
T	A	L	C	H	I	P	I	P	E	L	I	N	E	E
Y	W	L	F	R	M	B	B	E	F	O	R	E	D	N
C	A	R	E	Y	T	Q	H	F	X	T	O	P	I	E
V	I	R	B	S	U	M	C	G	I	Y	S	S	G	R
R	S	X	E	X	C	A	V	A	T	E	J	S	W	G
X	D	B	V	N	A	T	U	R	A	L	G	A	S	Y
V	A	M	H	J	C	V	W	Y	S	P	A	E	Y	V

Pipeline Safety Word Scramble

1. PIPELINE WARNING SIGN, 2. RIGHT-OF-WAY, 3. EXCAVATE, 4. C.A.R.E., 5. NATURAL GAS, 6. SAFETY, 7. UTILITY FLAG, 8. UNDERGROUND, 9. CLICK, 10. BEFORE 11. YOU 12. DIG 13. TC ENERGY

Pipeline Safety Crossword Puzzle

Across - 2. RIGHT-OF-WAY, 4. PIPELINE WARNING, 5. EXCAVATE, 6. UTILITY FLAG,

Down - 1. UNDERGROUND, 3. SAFETY, 7. CARE, 8. NATURAL GAS,