

Teacher's Guide for: *Eddie and the Air Out There*



Thank you for inviting *Eddie and the Air Out There* into your classroom. Air quality is a complex topic for the P-3 age-group but we hope that through our creative methods you will have an opportunity to help the children make a connection between energy use and the quality of our air. It is recommended that this guide be used as soon as possible to ensure the presentation material is still fresh in their minds. Below are some fun ways you can get your students thinking about air that can be scientific as well as *artistic*. If you have any comments or questions, please contact us at: EnviroEd@clean.ns.ca

For further information on air quality or to see the Air Quality Health Index please visit the Health Canada Website at: www.airhealth.ca

Activity One - Air Quality Quiz

Read this quiz aloud to your students to see what they remember from the presentation. The answers are highlighted in bold type.

1. What health problem do some people have that makes it hard to breathe dirty air?
A. Alligators B. **Asthma** C. Arthritis
2. What do we call dirty air? It is a word that starts with the letter 'P'
A. Polka-pants B. Popcorn C. **Pollution**
3. What are those organs inside your chest that take in air and feed it to your body?
A. Lupins B. **Lungs** C. Vacuums
4. Robert Plant gets his energy from this special thing up in the sky:
A. **Sun** B. Seagulls C. Clouds
- 5.. What were the 3 R's that Windy Wendy had you saying to practice your operatic rrrrrr's?
A. Rip, Roar, Ring B. **Reduce, Reuse, Recycle** C. Racket, Rocket, Ricket
6. **True** or False?
When we burn fossil fuels like coal or oil, they make the air very dirty.
7. **True** or False?
Riding bikes or walking to nearby places is better for the air than driving a car.
8. True or **False**?
Trees can clean the air but plants cannot. (False! Plants can clean the air too just like Robert Plant!)
9. **True** or False?
Can turning out a light or shutting off a television actually help keep our air clean? (True because we often burn fossil fuels to make electricity.)
10. True or **False**?
Windy Wendy makes renewable energy by using the flow of water. (False! She uses the wind but water energy is called hydropower and there's sun energy too; it is called solar power.)

Activity Two - Be 'Super' and Write to Eddie!

Send Eddie a letter to let him know how you will work to keep the air clean. Or become inventors and tell us about your great energy saving inventions like Eddie's 'Energy Pockets'! Students can colour the colouring sheet and print a letter on the back. Class letters can be mailed to: *Clean Foundation*, 126 Portland Street, Dartmouth NS, B2Y 1H8. Students will receive a special iron-on patch from Eddie shortly after he receives his letters. Be sure to include a return address and class information.

Activity Three - Senses make Sense of the Air!

Discuss what you can't see! We breathe the air every second of every day but how do we know that it is really there? Use your senses to bring air to life. Have the children identify which of the five senses they can use to sense the air around us.

Sense of sight: What do we see that tells us that the wind is blowing? Examples: moving tree branches/leaves, long hair blowing around, a wind chime fluttering around.

Sense of hearing: Can you hear the wind blowing? What does it sound like? Can you hear someone breathing or a pet snoring? Have you ever heard the wind make a whistling sound when it moves around a building or in a tunnel?

Sense of touch: What does the air feel like on your skin? If it is cold, do the hairs on your arm stand up? If you wave your hand back and forth, can you feel the air? If you blow across your fingers do you feel or hear anything?

Sense of smell: Sometimes the air has a scent depending on what is around you. Many scents won't hurt your lungs but that's not always the case for people with Asthma. Things like strong perfumes or air fresheners can do more harm than good. Can you think of scents in the air that are okay to breathe? Have you ever smelled the rain? Does the air smell like trees when you walk through a wooded area? Other examples: Flowers, various types of cooking/baking, "toots", saltwater.

Sense of taste: Can you taste the air? Perhaps our sense of taste should be left to the food we eat!

Note: If there isn't a tree moving about in the wind outside your window, you can use a pinwheel to prove that air is all around us. Alternatively, you can have a child blow bubbles into a glass of water with a straw (straight from their little pink lungs!).

Activity Four - Counting Power

Eddie said that you can save power by turning things off such as a light that isn't being used in your home. Can you count how many light switches there are in your classroom? How many things in your classroom need electricity to run? Draw a picture of yourself turning out a light in your home. For a home activity, students can also count how many light switches are in their house/apartment and they can identify all the things in their homes that need electricity to run. Bonus points if they tell their parents to conserve electricity!

In teams, walk around the school and take note of any rooms that are empty and have their lights off. Take note of any empty rooms that have their lights on. Are there any teachers that are using sunlight to light up their classrooms?

Activity Five - Saving Electricity

What are three things you can do for fun that use no electricity at all? Students can draw/write out their ideas or raise their hands in a discussion. Alternatively, students can get into small groups and come up with short skits depicting bored children looking for something fun to do that doesn't use power. "I know! We could..." • Read a book • Play a board game • Write a story about Eddie • Colour a picture • Dance • Ride a bike • Have a foot race • Skip • Play with toys using your imagination • Play a sport • Play an instrument that doesn't need to be plugged in • Help an adult in the garden etc.

Activity Six - A 'Cool' Discussion

Can air be different temperatures? You bet!

Ask the students the following questions: Where do you feel hot air? Can you change the temperature of the air?

Examples: Turn on a blow dryer; parents turn on the oven; open the door and let hot summer air into your home.

Where do you feel cold air? Can you make the air cold?

Examples: Air in a freezer; air in a shady corner; air on a cold winter day. You can also turn on an air conditioner or open a window to cool down a warm room.

If your home feels a bit cool, what can you do to warm up that doesn't require using electricity?

Examples: Put on a sweater or warmer clothes; wrap yourself up in a blanket; do some exercise to warm up your body; sit in a sunny part of your home.

Sometimes it can be warmer outside in the sunshine so **get outside and play!**

Activity Seven - The Dirt on Air

TEACHERS: This is an opportunity to talk about your own local environment. What we breathe in a city might be different from what we breathe in a rural area. At the P-3 level it may be worth talking about what the students 'see' such as smokestacks at a nearby factory or diesel burning vehicles driving through their town.

How do you know if the air is dirty? You can use the Air Quality Health Index as mentioned in the presentation (<http://www.airhealth.ca>). You can use your senses to tell you if it is dirty or if there are any dangers near by. A campfire is a good example that most children will relate to in order to understand what it is like to breathe dirty air. It will also remind them of how their body reacts to the smoke.

Using old magazines, cut out and collage products that have a scent or could make the air dirty. Examples: Perfume/cologne, vehicles (including boats and airplanes), houses, air fresheners, scented cleaning products/personal care products.

Activity Eight - Green Can Clean!

Eddie told us that trees and plants can clean our air. This is important when we think of how many vehicles are running and burning fossil fuels at any given minute of the day. Is there an opportunity to plant a new tree on the school property? If you do please send Eddie pictures!

If you have a large tree or several trees/plants on your school property, walk outside to take a look at them and think about all the things trees do for people and critters. Enjoy the fresh air while you are out there! Shout a big 'thank you' to the tree for cleaning the air. Have the students draw pictures of one of your trees as an 'air cleaning superhero' or depending on their age, write a love poem to the tree. Share your poems and pictures with Eddie too! He loves letters.

If you can't get outside on a cold/wet day, have your students think about all the plants and trees that may be growing near to where they live. Maybe you have a plant in your classroom or plants around the school. Take a walk through the hallways to find them. Remember that plants need lots of love and attention to keep them healthy. If they are neglected, they may start growing mold and that would be bad for your indoor air quality.

Activity Nine - Colouring Sheet

Help Eddie be an environmental superhero and help him plant a tree. What other items on the colouring sheet help us keep the air clean?

Activity Ten - Sing with Eddie

Sing along to the "Eddie and the Air Out There" CD! Below are some of the lyrics to help you sing along. Take a deep breath, your lungs need clean air to sing!

Eddie and the Air Out There is presented by:



Eddie and the Air Out There was developed with the support of:



Health
Canada

Santé
Canada



Help Eddie plant a 'superhero tree' to clean the air!

Colour the three types of Renewable and Reusable
Energy in the background.





The *Eddie and the Air Out There* CD was written by Kristi Anderson

Vocals: Kristi Anderson; Piano: Tim Crofts

Produced by Scott Ferguson of Ferguson Music Productions

Special Thanks to Justin Levangie, Christian DeWolf and Garry Williams

The *Eddie and the Air Out There* presentation was written by Kristi Anderson and Kari Riddell

To listen, go to: https://www.youtube.com/watch?v=s23_rlNSUso&feature=youtu.be

THE AIR QUALITY HEALTH INDEX SONG

(begins with the chorus)

1-2-3 - Air's good for me!

4-5-6 – It's a bit of a mix.

7-8-9 – Air's not so fine.

10 or more – Stay in for sure.

Use the numbers 1 through 10

To help you decide: go out, or stay in!

If the air outside is clean, it's a good air day!

See the numbers 1, 2, 3, you can go outside and play.

CHORUS

If numbers 4, 5, 6, appear on your screen,
Check with mom or dad to make sure the
air's clean.

If you see the numbers 7, 8, 9 or 10,
It's best to stay inside, play indoors with a
friend.

CHORUS

TURN OUT THE LIGHTS (from the CD recording)

Turn out the lights (cover your eyes),

Turn down the heat (shiver like it's cold),

Hang out your clothes (pin clothes on a clothesline),

Even your sheets (fluff your sheets)

Who needs a car (drive car steering wheel),

When you've got feet (stomp your feet)

You (point to yourself) can save (clap) ENERGY! (jazz-hands above your head)

FOSSIL FUELS VS. RENEWABLE ENERGY: AN OPERETTA

Rrrrenewable, rrrreusable energy

There to use for everyone like you and you
and me!

Rrrrenewable, rrrreusable energy

I hope you all remember it and use it happily

Coal gas and oil are on their way out

We need clean air, there is no doubt

Wind sun and water are on their way in

*Open your minds and let new thoughts
begin*

Rrrrenewable, rrrreusable energy

There to use for everyone like you and you
and me!

Rrrrenewable, rrrreusable energy

I hope you all remember it and use it happily