

Air Quality Health Index

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AQHI Introductory Activity: Fact or Fiction?

Summary

This energizer will grab students' attention and get them moving and ready for learning about the Air Quality Health Index. It is intended to get them interested and bring out misconceptions.

If desired, the activity can be repeated as a review activity after students have completed the learning stations.

Before you Start

Explain to the class that they are going to do a "Moving Silent Fact or Fiction" activity.

One wall of the classroom should be labeled "Fact" and the other one "Fiction".

Place an example on the Smartboard or whiteboard and/or read it aloud. Students must then move silently but quickly to the region of the room that they guess is the correct answer. The teacher can then reveal the truth before moving to the next one.

Adaptations

Teachers can adapt this activity to meet the needs and spectrum of learners in their classrooms. One example would be to choose four students (perhaps students who tend to be distracted or disruptive) to keep score, which may make them feel more a part of the activity. Teachers might also choose a student to record a noise score or take off points on the class score for any noise.

If used as a review at the end of the unit, teachers may choose to have each student write their name and a statement on a piece of paper and indicate in brackets if it is fact or fiction. Then, the teacher could pull these statements from a hat – any incorrect answers would provide an opportunity to highlight residual misconceptions.

Facts

1. There is an Air Quality Health Index or AQHI that is like the UV index, only it tells us about the health risk from air pollution for that day.
2. The Air Quality Health Index is part of the forecast. (There is a maximum forecasted value for today, tonight and tomorrow.)
3. The AQHI is based on the risks of common air pollutants that harm human health.
4. A common air pollutant that harms human health is: particulate matter (tiny particle pollutants in the air).
5. Air pollution makes asthma symptoms worse.
6. Air pollution can be a problem in any season.
7. A full bus takes 40 to 60 cars off the road.
8. Running your gas powered lawnmower for one hour is equal to driving a new car between 320 and 480 kilometres.

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9. Some people are more sensitive to air pollution.
10. The shape of the land can allow air pollution to be trapped in valleys.
11. Ozone found at ground level is a pollutant.
12. When the AQHI is at High Risk, you change or reschedule your outdoor activities to times when the air quality is better.

Fiction

1. For AQHI, the lower the number, the greater the health risk associated with the air quality. For example, an AQHI of 2 is worse than an AQHI of 10.
2. A common air pollutant that degrades air quality is carbon dioxide. (While carbon dioxide is a greenhouse gas and excess emissions contribute to global warming, it is not considered "air pollution". It is vital to life on earth. Plants need carbon dioxide for photosynthesis. AND carbon dioxide is in our every breath – your class room has it all the time!)
3. The colour Blue on the Index scale is used to show a very high health risk from air quality.
4. Air pollution is an issue for people in cities. People who live in rural areas are not affected.
5. Children are the least sensitive to the bad health effects of air pollution.
6. Strong winds cause air pollution to build up.
7. Weather does not affect air quality.
8. Factories create the most air pollution in Canada. (In fact, transportation is the largest source of air pollution.)
9. Doing lots of physical activity in polluted air makes it easier to breathe.

References

Air Quality Health Index (AQHI) Websites

<http://airquality.alberta.ca>

www.airhealth.ca