Every time we plan a session of in-school hands-on science, we do a "'Elf and Safety" assessment. The more dangerous the session, the longer we spend at the start getting the kids to risk assess the equipment asking what they should do if something goes wrong. They are good at it and they enjoy it.

Nothing is 100% safe, and right now you are worried about the children going back to school and how safe it is. So I thought it might be helpful to give you some suggestions about doing a family "'Elf and Safety" assessment.

Let me first summarise the science as best I can for you with the big caveats : no-one knows everything about how this virus behaves; the virus could mutate; the research is still pouring in, and much is still tentative.

The means of transmitting the virus are aerosols (little droplets that you breathe out), droplets (larger drops expelled by coughing and sneezing) and by touch. You cannot tell if someone you are meeting has the virus as they may show no symptoms.

On the positive side the science suggests :

1.Normal youngsters under 18 if they catch the virus are likely to fight it off relatively easily. Under 11s in particular seem rarely to have any issues. The virus is very age related and is more likely to cause death when you are over 55, with mortality rates rising steeply for the over 70s.

2. In Scotland, the amount of virus circulating in the population is low, and that means there are less people you encounter who have the disease, and less chance you are going to catch it.

3. Most people who catch it only have mild symptoms.

On the negative side :

1. There is increasing evidence that children can spread it to others so you should allow for this possibility in your review.

2. If you do get it and react to it badly, it is an extremely unpleasant disease which can attack any of your organs : lungs, heart, liver, brain etc. Recovery in these circumstances can take a long while and there are many accounts of symptoms recurring multiple times.

3. There is limited research on what the long term issues are if you catch it and recover..

Lower risk situations are : outdoors; few people around; everyone more than 2 metres apart; rooms where the windows are wide open and the air is flowing freely in from the outside.

Higher risk situations are : indoors particularly in a crowded room or vehicle; physically within 1 metre of someone; in parties or clubs where alcohol or drugs are taken; anywhere that is poorly ventilated; with a group who are singing or shouting and not wearing masks.

So here is a "starter for ten" for how you might do a health and safety review with your children. Adapt it to your situation :

KEEP IT ALL LIGHTHEARTED : Make it fun : We can crack this kids. Let's make posters and notes to remind ourselves. Let's ensure we've got all we need..

INVOLVE THE WHOLE FAMILY : The more the children help research it and decide on the actions, the more in control they will feel, and they will learn what to do and when, as part of the process. Put them in charge of drawing up the rules.

EXPLAIN THE CONTEXT : Remind them what a great thing they've done already in helping bring the amount of virus down and helping all of us to stay safe. "Great job youngsters." Remind them that because they've done that, the risk is much lower and the aim is to keep it that way. So going back to school; going to interact with a lot more people; and the aim is to keep you and them safe.

IDENTIFY ANYONE PARTICULARLY AT RISK : Risk factors are age, obesity, diabetes, ethnicity, pregnancy and underlying medical conditions. Think about who you are in contact with and who you might infect? Mum, dad, granny, grandpa, friends etc. You may want to do different things depending on who you are visiting.

IDENTIFY THE SITUATIONS THAT MAY OCCUR THAT YOUR CHILDREN ARE WORRIED ABOUT : in the school bus, in the school, after school etc. Let them brainstorm this and if they come up with things like "What do we do if someone coughs or spits at us?" Deal with it, let them design a protocol to follow : "e.g. 1. Walk away. 2. If in a bus, tell the driver immediately. 3. Clean your face and hands with sanitiser or go to the washroom and use soap. 4. Go and report it if deliberate. Etc."

IDENTIFY THE PPE AND ACTIONS THEY CAN TAKE TO LOWER THE RISK : What should they have in their pocket? What should they have in their bag? When should they use it? When they come in from school should they change their clothes - if so where? etc. Let them develop the rules and then EVERYONE including mums and dads if you are working away from home, follow the same rules.

IDENTIFY AND STOCK UP WITH WHAT YOU NEED : Examples are : PPE, lunchboxes, extra uniform items, water bottles. Depending on what you've designed you may need extras of these for example if you decide on a "one in dishwasher - one ready for tomorrow" protocol for lunch boxes and water bottles.

Three big rules when doing this :

DO NOT rely on one expert or one piece of evidence when doing the research. Look for several common pieces of evidence from well known reliable sources such as Universities and Public Health bodies. There are a lot of bad posts and fake advice out on the net.

STAY FLEXIBLE - things may change rapidly, either the science or the situation, so keep your approach to the safety of yourself and your family under constant review. Don't get too dogmatic saying "We'll never do this". If it saves yours and others lives, it's an option.

STAY UP TO DATE with the Public Health advice and follow it :
https://www.nhs.uk/conditions/coronavirus-covid-19/

Hope that's helpful. Feel free to let us know how you get on and suggest tips on what worked for you. Let's share good suggestions from your children.

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