

Transcription of Science Time video – Autumn

The video for this transcript can be found on the Questacon website at:

<http://canberra.questacon.edu.au/sciencetime/>

Transcription from video:

- Dion Hello and welcome to Questacon Science Time. My name's Dion.
- BJ And my name's BJ.
- Dion And today we're talking about Autumn. Come and join us.
- BJ Let's go.
- Dion Can anyone guess what we're talking about today? if you look around the room, what do you think we might be talking about? Any ideas?
- BJ What do you think we're talking about today?
- Dion Today we're actually going to be talking about Autumn. Autumn. Now this morning was it warm or cold?
- Child Autumn.
- Dion Yes, Autumn. Was it cold or was it warm this morning?
- Child It was warm.
- Dion It was warm was it? You might have been in a big jacket maybe. Did anyone feel cold this morning. I felt a bit cold this morning. The reason it's cold, is it Summer at the moment? No it's not Summer it's Autumn at the moment. So it's a little bit colder.
- Child I don't get cold.
- Dion You don't get cold? You're very lucky not to get cold, especially in this sort of weather.
- Child The sun goes away.
- Dion The sun does go away sometimes, doesn't it. It gets a little bit cold. Good work. Taking a seat on your bottom. Now, what happens in Autumn? Does anyone know? What happens in Autumn? If we have a look at this picture can anyone tell me what happens in Autumn?
- Child The leaves falling down.
- Dion The leaves fall down, don't they. Well done. They do fall down. And what else happens to the leaves in the trees? They also change colour as well, don't they? They change colour. So, what colours can you see in the picture? What colours can you see?
- Child Orange.

Dion We can see orange. What other colours? Can anyone see yellow? Hands up who can see yellow. Can anyone see yellow in the picture? You might be able to see yellow in the pictures. There's a bit of yellow over here. Can anyone see orange in the picture. Maybe a bit of orange. And can anyone see green in the picture? Hands up if you can see green in the picture. Can you see green in the picture? Yeah, maybe. So we've got green in the picture as well. Now, we've got two different types of trees in this picture here. We've got some trees that change colour and some trees that don't change colour.

Child I can see red.

Dion You can see red. Lots of different colours, well done. So, we're going to talk about some trees called evergreens first. Now, evergreens they are always green, even in Autumn. So you can see here these leaves. What colour are these leaves?

Child Green.

Dion They're green, aren't they? These leaves are really waxy which means they stay green all year round. There are also some other leaves which are very, very small like these ones here. These ones also stay green all year round. Does anyone have a tree like this at home. Do you have a tree like this at home?

Child I've got a tree at home.

Dion You have and does it look a little bit like this maybe? Maybe an evergreen as well that doesn't change colour.

Child I don't.

Dion You don't have an ever green? You might have different types of trees then.

Child I've got big!

Dion You've got big trees?

Child Yeah.

Dion With lots and lots of leaves. Then you might have a tree that changes colour.

Child I do like that.

Dion You do like that as well? We're going to have a look at a tree now that changes colour. These are called evergreens and these trees though, the trees that have leaves that change colour are called deciduous. Can everyone say deciduous for me?

Everyone Deciduous.

Dion That's a pretty big word. A pretty big scientific word. What happens with a deciduous tree is that it starts off green. Just like this one here. Just like all the trees are in Spring time. They are nice and green. But what happens in

Autumn is that all the green starts to disappear. So what is happening with this leaf if the green is starting to disappear and there's another colour underneath. What colour can you see?

Child Yellow.

Dion Well done, yellow. So we've got green and yellow here. But what happens is more green starts to disappear. And more yellow, you can see more yellow. And even more green starts to disappear, until eventually all of the green is gone. And what colour is this leaf?

Everyone Yellow.

Dion It's yellow, isn't it? So all of the green has gone. Now what happens is this yellow is always there and the green starts to disappear and shows the yellow. But we'll show you a little bit of an experiment here. We've got some orange here. So this is the colour of the leaf, in autumn, and then we have our green as well. Now, can you see any of the orange?

BJ Not really.

Dion Not really. Can't see any of the orange because the green is all covering it up. And what happens, in Autumn, the tree stops making the green bit and the green bit starts to disappear. Can anyone start to see the orange? You can see a bit. A bit more? And all the green eventually goes away and underneath is the beautiful Autumn colour. Yeah, very cool indeed. So these are deciduous trees that change colour in Autumn. Now what happens to leaves when they've fallen on the ground? What happens to leaves on the ground?

Child Windy.

Dion Yes, sometimes there's some wind around, yeah, they blow around, don't they? Now has anyone ever raked up leaves before? Do you help Mum and Dad rake the leaves at home? Do you rake up leaves at home? It's quite a lot of fun to rake up leaves. It's also fun to play in leaves as well. Now when the leaves.

Child We rake up leaves and acorns.

Dion And acorns as well.

BJ Oh, I like acorns.

Dion Very, very cool. So what happens is when we rake up our leaves sometimes we'll put it on something called a compost heap. Now a compost heap has got lots of little creatures that like to eat leaves and that sort of stuff. Now, these sorts of animals, one of them is a really, really long slimy one that lives under the ground. Can anyone think of what animal that might be? What do you think?

Child A wiggly worm.

BJ Yes.

- Dion A wiggly worm. Well done. So we've got worms, and also cockroaches and millipedes and snails as well. And all these animals are called composters. Can everyone say composters for me?
- Everyone Composters.
- Dion Composters. Composters like to eat old leaves. They really, really do like quite a lot. So what we're going to do, we're going to pretend to be some trees now. So what we have is, we've got some leaves and I want everyone to find your favourite leaf. So we're going to put some leaves in the middle here. Can everyone find their favourite leaf for me? Come and find your favourite leaf there we are, find your favourite leaf. There we are. Well done. Now, can everyone find a leaf that's the same colour as their favourite leaf? So you need to have two leaves, one that's the same colour. Can you find...see if you can find two leaves that are the same colour.
- BJ Two, well done.
- Dion So what we're going to do, we're going to pretend to be big trees now, so I need everyone to get their two leaves, we're going to stand up now. Everyone standing up.
- BJ Oooh, up we get, trees.
- Dion Oooh, and I want everyone to get your big branches and spread them really, really wide.
- BJ Really big
- Dion Spreading your leaves. So holding onto your leaves, spreading your branches really really wide.
- Child I'm a big tree!
- Dion You're a big tree.
- BJ You're a big tree.
- Dion And what happens to the leaves in Autumn? Does anyone know? They start to drop down, don't they? So we're going to drop our leaves when I say "ready, set, go". So ready, set, go! Drop your leaves! Just like an Autumn tree, well done. So, sitting on your bottoms again. So now that the leaves are all on the ground there are some things that like to eat those leaves. So what we have now is we've got some composters. So I want everyone to come and get a composter, see if you can pick your favourite composter.
- BJ There's worms and millipedes...
- Dion We've got worms, millipedes, snails, all sorts of different types. There we are, so see if you can find your favourite composter. Then I want you to find a leaf for me find your favourite leaf again, everyone find your favourite leaf, and we're going to feed our composters. Everyone get your leaf, and your composters going to eat the leaf. Are you ready? So, nom, nom, nom, nom, nom, nom, nom, nom...They really like to eat the dead leaves on the

ground. So everyone putting down their leaf, I want you to get a new leaf this time, see if you can find a different leaf, find another leaf, and we're going to feed our composter another leaf. Are you ready? So, our composters like to eat those leaves! Go!

Everyone Nom, nom, nom, nom, nom, nom...

Dion Likes to eat those leaves. Well done. So I want everyone to put your composters back in the container for me. Putting all your composters back in the container. Good cleaning up, well done. Do you want to put your composter in there? Well done. We've also got another container here for our leaves. Can everyone help me pack up our leaves? So putting our leaves in there. Thank you very much for your help. Do you want to put your composter back in there? So putting all the leaves back in the container. Good work.

BJ You're very good at picking up. Do you pick up things at home?

Dion Hopefully you clean this well at home. You're doing a very, very good job. Well done. So putting it all in the box for me. Packing it all away. Well done. Well done. So this is like what we do at home, when you rake up the leaves you put them all into a big box which is your compost bin. There we are.

BJ And you can pretend to be a tree at home, as well, it's lots of fun.

Dion So, sitting on your bottoms everyone, sitting on your bottoms. Now we've also got other composters, cockroaches as well, and BJ's actually got a real cockroach to show us, which she's going to go fetch now.

BJ I'll just go get it.

Dion Now, hands up, who's got cockroaches at home? Has anyone got cockroaches at home? Have you got cockroaches at home? It's not nice to admit that we have cockroaches, but sometimes we do, we do have cockroaches. So you might have cockroaches that look a little bit like this one here.

Child I don't.

Dion You don't have them? You're very ...

Child We don't have them.

Dion You don't have them either? Well, sometimes you do have them and they look a little bit like this.

Child We have one.

Dion You do? Fantastic. Now cockroaches are like the worms and snails, they like to eat the dead leaves. But what we have today is we've got a Giant Burrowing Cockroach, which is an Australian one.

BJ She was a bit hard to find, she was burrowing under the leaves.

- Dion So if you look at our Giant Burrowing Cockroach it's very, very big, isn't it?
But she's very, very safe, very, very friendly.
- BJ Now sometimes cockroaches have a bit of a bad reputation. Some people
don't like cockroaches, but I love cockroaches, because they eat up all the
leaves and compost the leaves for the garden. Now do you know, Dion, that
cockroaches are actually really clean, because they have to be clean
because they don't breathe through their mouth like you and I do, they
breathe through little tiny holes in their skin, their exoskeleton, the shell
here. So they've got to stay clean, otherwise they can't breathe very well. So
today, when we're playing in Science Time, you'll be able to come and have
a little pat of our pet cockroach.
- Dion Very cool indeed.
- BJ Isn't she gorgeous?
- Dion So we have lots of things to talk about and look at in Science Time today.
So ready, set, go! Explore the room! See what you can find!
- BJ Go have fun!
- Dion And enjoy yourselves.
- BJ So while everyone's having a play, let's go have a closer look at some
Autumn trees. Come with me. Here we are outside Questacon. Here in
Canberra, we've got lots of lovely deciduous trees that change colour in the
autumn time. Have you ever wondered why do trees have leaves? Well,
they use their leaves to get energy. They turn the sun's rays into energy,
using this green colour, called chlorophyll. It's a bit like the tree's own solar
panels. We call this photosynthesis. Can you say that word with me?
Photosynthesis. That just means turning the sunlight into energy for the
tree to grow. But, in the autumn time and the winter, there's not as much
sun, the days get shorter and it gets freezing cold. So cold that this leaf
would freeze. Not good for the leaf, and certainly not good for the tree. So
the tree now has lots of energy stored up from the summer and it doesn't
need its leaves any more in the winter and it decides to drop its leaves. So
the first thing it does is stop making this lovely green colour, the chlorophyll,
and without the green colour that starts to disappear and you can see other
colours coming onto the leaf. You can see lovely yellow shining through.
Soon there's not much colour at all except this brown colour. And then it's
time for the leaf to fall onto the ground where the little creatures turn it into
compost and that helps feed the tree during the winter time. Do you know
what my favourite thing to do in Autumn is? Play in the leaves. Now, Dion
loves playing in the leaves too. He said he was going to come and play in
the leaves with me but I can't see him anywhere. Dion! Dion, where are
you? Dion! Dion, where are you? I wonder where Dion is. Wow, look at this
huge pile of leaves! I wonder who raked all these up? Oh, here's a nice leaf.
Dion would love this one. I'll have to show it to him when we see him. But I
wonder where he is? He can't be far away. Let's all call Dion together one

more time. Can you help me? I'll count to three and then we'll yell loudly, "Dion!" Ready? All together. One, two, three, Dion!

Dion Surprise! Surprise!

BJ What a great hiding spot!

Dion It's so much fun to play in leaves. You can play in leaves at home as well.

BJ Let's go back and see what's happening at Science Time.

Dion What we're going to do now is we're going to look at something called a terrarium. And BJ's going to show us how to make one at home.

BJ So everyone can you show all the boys and girls your terrarium that you made? What a terrarium is, it's where we plant seeds and we can watch them grow. You can do this at home. You just need two cups like this, and in one of the cups you put some wet cotton wool. This is all wet and soggy, it's been in water. Put some cotton wool in the bottom of it, like that. Dion, can you sprinkle in some alfalfa seeds? Sprinkle, sprinkle. You don't need too many seeds. Sprinkle, sprinkle. Well done, thank you. Now we're going to use the second cup to put a lid on top of our terrarium.

Child And then you stick it on.

BJ You stick it on.

Child And you stick on the top too.

BJ You stick it all over, well done.

Dion We'll use some sticky tape to stick it all together.

BJ Now, as you stick it together – this is called a terrarium and that means you don't have to water it. It's got its own little water cycle happening in here. The water will evaporate and then condense and come back down again and keep on going round. So you don't need to water your seeds in a terrarium. But these seeds do need something to help them grow. What do seeds need to help them grow?

Child Water.

BJ Lots of water. What else? Something that lives out in the sky.

Child Um, um...

Child Sun

Child Um, um, rain.

BJ The rain is like the water, isn't it. And your right, sunshine. You need lots of sunshine to help your seeds grow in the terrarium. So you can put it on the shelf in a nice sunny place. Now have a look. A close look you can see they are not growing yet. But, in a few days they're going to start to grow and they will be this big. Wow.

Child Like this big!



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- BJ Like that big. Cause you grow too, don't you? Yes you do. And everyday they'll grow a little bit more and a little bit more. And they will be really, really big. So you can make a terrarium at home and watch your seeds grow. Excellent. So we're all going to take our terrariums home and watch them grow. Dion's got something else for us now before we leave.
- Dion We've got some things to take home now. So the first thing we can take home is a parent information sheet. These are for the parents to give you an idea of what you can do at home and how you can learn about Autumn and that sort of stuff. The next thing we have is a picture for the kids to take home. What is this a picture of, can anyone tell me? What's this a pile of?
- Child Leaves.
- Dion Yes, it's a bog pile of leaves. Leaves are really fun to play with. So make sure you get a colouring in sheet to take home. But before we finish we are going to say goodbye to all the boys and girls at home.