Title of Session: Nuts About Nature-Do leaves fall, or do they Autumn?
Moderator: Bill Hilton Jr.
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Room: Tree House Conference Room

BJ: if this is your first Tapped In event, a couple of hints to help you
BJ: first, go to the ACTIONS menu in the top right of this chat window
BJ: and highlight DETACH
BJ: that will make it much easier to follow the dialogue
BJ . o O (you can also enlarge the font)
BJ: if Bill shows you a url, just click on the blue hyperlink. It will open a new screen for you
CatherinAP: how do you enlarge the font?
BJ . o O (if you have a pop up blocker, press ctrl when you click)
BJ: on the Actions menu, Catherine
CatherinAP: okay, thanks!
MaryBethC: Will we need to see the window behind our window where our dialogue is?
BJ: no, MaryBeth
MaryBethC: okay
BillHi joined the room.
BJ cheers for our fearless leader. Hi, Bill!
BJ: It's a little early, but how about if we start with introductions, Bill?
BJ: I'm an art teacher in Pennsylvania and a helpdesk volunteer for Tapped In.
BillHi: Go ahead.
CindyL: Hi I am a third grade teacher in Milwaukee Wi
BJ: Can everyone please give a brief introduction of where you are located and what you teach or hope to teach?
MariaMM: Hi I'm a preservice teacher from the University of Houston.
ElizabetS2: Hi! My name is Elizabeth Salisbury, I currently work as a research assistant and I am working on getting my teachers certification for high school biology from the University of Houston.
MariaMM: I will be teaching Middle School Science.
StephaniRW: I'm a computer teacher and a Jersey Girl
TamaraLS: Hi, I am a grad. student at George Mason University in Virginia. I am studying to become an ESL teacher.
EmilyBl: I am a student at the University of Akron.
MicheleSt: Hi, I am also a preservice teacher from U of H - EC-4
CatherinAP: I am in Houston, TX. and in the Katy School District. I hope to teach third or fourth grade
CathyArr: I'm an EdTech student via distance learning program at San Diego State and living/teaching in Northern California.
MaryBethC: I'm a Pre-Service teacher from Houston, Texas. I'd love to teach fourth grade!
TianaV: I'm a preservice teacher at UHouston. I hope to teach middle school science.

BJ: Wow, Bill...what a great crowd you have tonight!
LennyG: I'm a network administrator at Case Western Reserve.
BillHi: Other intros?
BJ: Nn, can you please give a brief introduction to the group?
VictoriaAL: I'm Victoria from the University of Houston EC-4
BJ hands the virtual floor over to Bill Hilton, the discussion leader.
BJ . o O (Jr.)
NnM: Hello, I'm new to Tapped In. I'm here on an assignment (Ed. in Technology course at George Mason University).
BillHi: Thanks as always to **BJ** for moderating.
BillHi: I'm Bill Hilton Jr., executive director of Hilton Pond Center for Piedmont Natural History in York, South Carolina.
StephaniRW joined the room.
BillHi: I taught high school and college biology for about 20 years and also travel the country giving talks about natural history topics and doing inservice and preservice teacher training.
BillHi: "Nuts About Nature" is a discussion aimed at helping teachers using the out-of-doors--either for real or virtually--to excite their students about learning science and other disciplines.
BillHi: Each month we start out with a title--for October it's "Do leaves fall or do they Autumn?"--and go from there.
VictoriaAL: any ideas for a parts of a plant unit?
BillHi: Let me first say that i have a some specific goals for tonight, so let's try to stick to the discussion.
BillHi: There will be time for questions at the end.
BillHi: As my lead question, let me ask this: What does the word "autumn" actually mean?
MaryBethC: changing of a season?
EmilyBl: I think autumn refers to a season
TianaV: change of weather
MariaMM: It's like change of temperature leading to the falling of leaves.
CatherinAP: the season between the months of summer and winter
BJ: from autumnal equinox, but I don't know what the word derivation is
VictoriaAL: that's what the dictionary says
MicheleSt: It refers to the season?
ElizabetS2: well, it is a season, a time of change in temperature, leaf color
NnM: A person's name or reference to a season.
BillHi: Well, the obvious definition does indeed refer to the season between summer and winter, beginning at the autumnal equinox on or about 23 September.
CindyL: harvest
BillHi: But the supposed derivation of the word may be from an ancient word meaning "to satisfy one's self."
CatherinAP: interesting...
NnM: Greek?
MicheleSt: very
BillHi: How do you suppose that kind of meaning led to the name for the fall season?

CatherinAP: because fall is relaxing, and it's a comforting time a year?
EmilyBl: people are eating the crops from summer and satisfy themselves
BJ thinks the harvest answer was good
CindyL: The Indian's probably used this season to think of one's inner self
TamaraLS: People satisfied themselves with what they obtained from the harvest.
ElizabetS2: well, if it is the time of harvest, it is a time of plenty
BillHi: Okay, these are all good ideas.
LennyG: reflects thanksgiving, satisfy
CindyL: skip what I said
VictoriaAL: maybe to prepare for winter?
MariaMM: You satisfy yourself meaning you enjoy the weather it's not hot or cold
NnM: The accumulation of the Spring 'newness' and the Summer months of 'fun?'
BillHi: And I suspect the derivation does pertain to the harvest--perhaps even that it is satisfying to see the fruits of one's labor at season's end.
MaryBethC: that makes sense
MicheleSt: yes it does
BillHi: But instead of thinking of "autumn" from the human perspective, let's think of it from nature's perspective.
BillHi: Would nature's perspective change your answers listed above?
EmilyBl: animals are getting ready to hibernate
ElizabetS2: it is a transition time, time to prepare for the colder temperatures of winter
TamaraLS: Perhaps a time of maturity and therefore a time to prepare for "resting" in the winter months.
LennyG: trees and plants are getting ready for winter months
MaryBethC: nature has its own time clock
VictoriaAL: repeat: maybe to prepare for winter?
TianaV: probably so, nature is able to rest as well
MicheleSt: Spring and summer are such busy times for nature- fall is more of a time out
VictoriaAL: makes sense to me
MariaMM: no more ants working to gather food they just enjoy hibernating and eating.
BillHi: Okay I'm getting some mixed messages here.
CatherinAP: from a nature's point of view, it is preparing for what is ahead...winter
BillHi: First of all, what percentage of living things in nature actually make it through the winter?
CatherinAP: not much
VictoriaAL: 20%
MaryBethC: very few
EmilyBl: A lot
TianaV: it depends on the temperature
TianaV: I think it would anyway
MaryBethC: Doesn't it depend on the animal
CindyL: 80%
CatherinAP: some things come back to life even if they die in the winter
LennyG: it depends on the location
BillHi: Give me some specific examples of living things that do NOT make it through the winter.

LennyG: I would say 80-85%
MicheleSt: Some trees leaves
TianaV: palm trees
MariaMM: some flowers
BJ listens to Bill
CatherinAP: hibiscus
CindyL: living things that are weak
VictoriaAL: tropicals
MaryBethC: mosquitoes?
BillHi: Let's think of things in their native, natural habitats.
CindyL: flowers that are annuals
TamaraLS: insects with short-life spans anyway.
BillHi: Good, Cindy!
MariaMM: flies
BillHi: Good, Tamara!
BillHi: And Maria!
CatherinAP: butterflies?
BillHi: Butterflies are insects, too.
EmilyBl: planted vegetables
CindyL: I thought flies hibernate and survive
MariaMM: well fruit flies live for a day
MariaMM: I think
CindyL: Anything that doesn't get far enough under ground and is unable to hibernate
VictoriaAL: certain types of grass would qualify
BillHi: Okay, all of you are now starting to think. (-:
BillHi: Different organisms have different strategies for making it through the winter.
BillHi: Insects are the most plentiful macroscopic animals on Earth, and even they have a multitude of strategies.
CatherinAP: what are they?
CatherinAP: at least one?
BillHi: Some have been mentioned. For example, some insects DO hibernate.
MicheleSt: Well, butterflies migrate south-- so that would be a strategy?
BillHi: Excellent. that's a second strategy.
CatherinAP: I thought butterflies have a short life span
BillHi: Give me some more, and be specific where you can.
TamaraLS: I can attest that crickets invade my house during the fall months!
MariaMM: Actually Monarchs are on their way to Mexico
EmilyBl: Birds fly south
MaryBethC: I didn't know that about butterflies!
CindyL: do some dig down in the ground?
BillHi: We're doing insects, not birds.
LennyG: live in caves
BJ: cocoons?
EmilyBl: mice go into garages, houses, anywhere
MicheleSt: Except, some are staying here in Houston this year- big deal around here
BillHi: Or mammals.

VictoriaAL: does our habitat affect these strategies?
BillHi: Insects only, please.
MaryBethC: Bears hibernate
CindyL: they find shelter from extreme cold like inside window sills
MicheleSt: what happens to the small insects?
CatherinAP: what about bees?
MicheleSt: yes, like bees?
NnM: they're buzzy all year round
BillHi: Not true.
EmilyBl: bees fly somewhere else
MaryBethC: Or lightning bugs? I only notice them around in summer
CindyL: bees hibernate
MicheleSt: good point mb
TianaV: aren't there some bees that are able to freeze then unfreeze in the spring?
MariaMM: insects hibernate in galls
VictoriaAL: what about beetles?
TamaraLS: Some insects probably lay eggs in trees or well incubated areas.
BillHi: Okay, everybody stop so I can respond.
CatherinAP: do bees hibernate in their hives?
BillHi: First of all, I asked for answers and examples, not questions, so some of you failed the first test. (-:
MariaMM: some insects spend time in different stages during winter
CatherinAP: sorry, bees hibernate in their hives
BillHi: I reapeat, everybody stop.
BillHi: Some insects--some mosquitoes, for example--do hibernate. that's why you can get bitten on a warm day in winter even in cooler parts of the country.
BillHi: Bees do NOT hibernate. they stay alive in the hive all winter. the workers beat their wings constantly, giving off hat energy that keeps the hive warm.
MariaMM: well insects spend the winter dormant or diapause, it's a time when they pause their growth and development
BillHi: Some insects do migrate--Monarch butterflies are the best-known example--but some of the big dragonflies also migrate.
BillHi: Maria, hold off.
BillHi: Some insects spend the winter as pupae (cocoons), while others overwinter as larvae.
BillHi: And some overwinter in nymphal (immature stages), as implied by Maria.
BillHi: But the vast, vast majority of insects simply die and do NOT make it through the winter.
BillHi: So how in the world would a dead insect be able to say in autumn that it had "satisfied itself."
BillHi: Ideas?
NnM: Already mated.
MaryBethC: because it probably had lived only to mate, carry on its population, and then die
CatherinAP: yes, what Mary Beth said
VictoriaAL: good answer

BillHi: You two are too good.
EmilyBl: Maybe the dead insect already set the starting stages of new life through reproduction
ElizabetS2: if it had already laid eggs that would hatch in the spring it would be satisfied
MicheleSt: exactly- its purpose was a specific job
BillHi: That's it exactly.
MariaMM: I agree with Emily
CindyL: it ate like the hungry caterpillar
BillHi: Well, almost exactly. The insect doesn't care if the species is carried on, only that its own genes are passed on.
BillHi: If enough insects care about passing on their own genes, then the species is taken care of.
BillHi: Now everybody stop again for a second.
BillHi: It seems to me the human perspective on autumn is indeed different from nature's perspective.
VictoriaAL: yes
CatherinAP: what about love bugs here in Texas?
BillHi: Catherine, are you with me here?
CatherinAP: yes
BillHi: You folks were talking earlier about autumn being a time of harvest, when we take from the Earth.
BillHi: It looks to me that for nature, autumn is a time to put back.
BillHi: And what you're putting back is your offspring so your genes will be passed on.
BillHi: Or you're surviving winter so you can make offspring the next year.
NnM: a cycle of give and take (harvest & replenish).
BillHi: So does anyone see a field trip or science lesson coming out of what we've discussed so far?
NnM: Yes.
TianaV: butterfly museum
CatherinAP: yes, the outdoor learning center
MaryBethC: It's a great different perspective on Autumn!
MicheleSt: I like that one Tiana
BillHi: WAIT! Give me topics, not locations.
CindyL: Life cycle of an insect that includes the seasons
TianaV: life cycle of a butterfly
VictoriaAL: a science lesson on the cycle of a bug's life
EmilyBl: maybe a lesson on ways to give back to the earth such as recycle
MicheleSt: What happens to insects during the winter
MariaMM: How about collecting and observing the life cycle of an animal during this season
MicheleSt: and how that relates to the word Autumn
BillHi: Good so far. More?
NnM: I'm thinking of a more socio-environmental take on this; the demand may soon be too much for the supply.
BillHi: Good.
MaryBethC: Well, couldn't we somehow relate it to our use and treatment of the planet?

VictoriaAL: maybe how global warming effects an insect cycle of life
BillHi: I think that's what Nn meant.
EmilyBl: how environment affect nature
CatherinAP: how insects adapt to their environment
CindyL: What about how things are cyclical in nature
VictoriaAL: students can reflect on the temperature changes and compare from previous years...and eventually could be tied into the effects of an insect cycle
ElizabetS2: maybe even natural selection and survival of the fittest
BillHi: All these are good. I think it's worth remembering that despite the beauty of the autumn leaves, for the vast majority of plants and animals autumn is a time of death.
MicheleSt: A very different perspective
VictoriaAL: but that's the life cycle
NnM: And spring is its polar opposite
BillHi: That doesn't diminish the aesthetics of the season, but it puts some perspective on the fact that different organisms have different ways of dealing with survival and procreation.
CatherinAP: I learn something new everyday!
BJ . o O (you learn something new every time you join one of Bill's sessions)
BillHi: That's my job. (-:
BJ hopes Bill will let everyone know about his newsletter
BillHi: So we've actually looked at several different levels of instruction here.
MaryBethC: I'm interested!
BillHi: You probably would be so philosophical with first graders as to talk about the relationship between autumn and death, but you could certainly use that insect life cycle poster.
CatherinAP: of course!
BillHi: So let's jump from insects to reptiles.
BJ claps her hands in anticipation
BillHi: Reptiles use all the same winter strategies as insects, except reptiles are usually much longer-lived and don't die at summer's end.
BillHi: Let me give you an example.
BillHi: I'm going to provide a hyperlink to my Web site for Hilton Pond Center for Piedmont Natural History. Go to it and stop at the main page.
BillHi: The URL is http://www.hiltonpond.org
BillHi: Everybody there?
TianaV: yes
CindyL: yes
MariaMM: yes
ElizabetS2: yes
VictoriaAL: yes
CatherinAP: yes
BillHi: Bookmark this page, please. (-:
MicheleSt: yes
MaryBethC: yes
EmilyBl: ok
ElizabetS2: already did, thanks

TianaV: k
TamaraLS: yes
MaryBethC: got it!
MariaMM: ok
MicheleSt: done
VictoriaAL: got it
BillHi: Okay, scroll down to "This week at Hilton pond" and click on the link about the bicycle and the turtle.
BillHi: That should take you to http://www.hiltonpond.org/ThisWeek041001.html
VictoriaAL: ok
BillHi: Everybody there?
MicheleSt: yes
CindyL: y
CatherinAP: yes
EmilyBl: yes
MaryBethC: yes
TamaraLS: yes
BillHi: Each week I do one of these photo essays about some aspect of nature. The essays can be very useful for teachers looking for timely nature topics to discuss.
ElizabetS2: terrific!
VictoriaAL: thanks
MicheleSt: he is a little guy
CatherinAP: I will be sure to log on to your site next week!
TamaraLS: Looks very interesting and useful.
BillHi: If you want to get a weekly reminder when I post the essays, just send a blank e-mail with SUBSCRIBE in the Su**BJ**ect line to mailto:thisweek@hiltonpond.org
BillHi: So which strategy is this little Snapping Turtle going to use to survive the South Carolina winter?
EmilyBl: very interesting
MaryBethC: Bill, are you in Hilton Head?
BillHi: Hilton head is on the coast, 200 miles to the east.
BillHi: Southeast.
EmilyBl: migrate
BJ . o O (he's going to find a sugar daddy)
BillHi: Nope.
BillHi: Nope to Emily.
CatherinAP: they hibernate in their shells?
MaryBethC: bury in the sand?
TamaraLS: Dig in the mud.
BillHi: I'll ignore BJ.
CindyL: hide in his shell
BJ laughs
BillHi: Tamara may be right.
BillHi: If it gets really cold, he may hibernate in the mud.
ElizabetS2: hide under logs?
CatherinAP: bury themselves in the mud and in their shells?

BillHi: What would he do in Houston?
NnM: Thank you for your time
VictoriaAL: not much worrying since it's always hot here
CatherinAP: stay in the shade!
CindyL: go dormant
BillHi: So strategies will differ even for the same species in different parts of the country.
CatherinAP: swim?
VictoriaAL: yes
BillHi: Catherine's right.
ElizabetS2: quite true, good point
CatherinAP: so they swim in the ocean during the cold months
EmilyBl: swim all winter?
BillHi: In Houston, winter is probably no different for the snapper than summer.
TianaV: thank you for your time
BillHi: Thanks to everyone. Hope it was useful and you have some things to think about as you have sweet dreams tonight.
MaryBethC: thank you!
BJ applauds wildly. Thanks, Bill
TamaraLS: Thanks!
EmilyBl: Thanks
CatherinAP: thank you, I learned quite a bit!
TamaraLS: th/ applaud
LennyG: thanks
CindyL: wonderful chat
ElizabetS2: Thank you! It was enlightening as always! Hopefully I won't dream about insects!