

## Lesson 1 · nature-of-stem

## Hello! Let us wonder together

**Lesson at a glance**

Sit Junior Infants in a circle and model stopping still, then say 'I notice...' about one small thing in the room. Teach that wondering means stop, look closely, say what you notice — and that scientists do this too. Take a slow wonder walk round the classroom (and the yard if weather allows), stopping at deliberate spots to point and notice. Each child draws one thing they noticed; pin the drawings to a class wonder wall and share them orally in the circle.

**Learning objectives**

- Stop, look closely and say what I notice
- Understand that scientists are people who stop and wonder, just like us

**Before the bell – prep**

Have drawing paper and crayons ready before the bell, one set per child. Clear a space on an existing wall or noticeboard to be the 'wonder wall' — no special sheet needed. Plan a short walk route: a classroom loop plus one safe yard spot. If weather is poor, drop the yard and pick five or six indoor stops (window, plant, book corner, sink) instead.

**Materials**

Item	Qty	Per	Source	Low-cost substitute
plain drawing paper	1	pupil	classroom	the back of used paper
crayons	1	pupil	classroom	coloured pencils

**Safety watch-point**

Outdoors, stay together as a whole class and keep to the planned safe spot. Do not let children pick or taste anything. Wash hands after coming back inside.

### Teaching moves

- **Getting Started:** Sit the class in a circle and physically stop still yourself, then say lively and clear: 'Ooh, I notice a tiny crack in the wall!' This out-loud modelling is the whole lesson — a 4-year-old has no anchor for 'wondering' until they watch you do it. Invite two or three children to point and say what they notice.
- **What does it mean to wonder?:** Model the full pattern out loud before the walk: 'I stop. I look closely. I notice the leaves are wet and shiny. I think it rained!' The concepts table is for you, not the children — read it aloud and use the examples as your own demonstration script, pointing at real things.
- **Our wonder walk:** Walk slowly and at each deliberate stop say 'Stop! Look closely. What do you notice?' Accept every offering warmly — there are no wrong noticing. Keep the class together outdoors and re-voice the thread: 'Scientists stop and wonder, just like us!' Roughly 6 minutes indoors, 8 outdoors, 4 to regroup.
- **Draw your wonder and pin it up:** Before any child starts drawing, go round and ask each one quietly: 'What is the one thing you noticed?' Many will freeze if left to choose alone — this one-to-one steer is essential. If a child is stuck, offer a choice of three things the class noticed and let them point. The drawing is the recording, no writing.
- **Show and tell our wonders:** Gather at the wonder wall. Invite several children to point to their drawing and say 'I noticed...'. Re-voice and celebrate by name: 'Síle noticed a busy ant, and Tomás noticed a shiny puddle!' Close the thread: 'Today we were all wonderers!'

### What it should show

Children will notice and name a wide spread of small things — a spider, a wet puddle, an ant, a leaf, a crack in the wall, colours and shapes. Affirm the variety; there is no right answer. Some will offer something they imagine rather than see; gently steer back with 'Show me where — what can your eyes see right now?' Success is every child choosing and drawing one thing they actually noticed.

### Misconceptions & interventions

- **A child thinks a scientist is only someone in a white coat in a lab, not them.** — Use the vet example from the concepts table — a vet wonders why a puppy is poorly, then looks closely. Then point round the circle: 'You stopped and wondered today, so you are scientists too.'
- **A child names something they imagine or remember rather than something they can see now.** — During the walk, kneel beside them and ask 'What can your eyes see right here?' Point together at one real thing to re-anchor 'I notice' on what's actually in front of them.

**Differentiation**

Emerging	Developing	Proficient
<ul style="list-style-type: none"> <li>• For a child who can't pick from the whole walk, offer three things the class noticed together and let them point to one before drawing.</li> <li>• Pair a quiet child beside you on the walk so they can whisper 'I notice...' to you first.</li> </ul>	<ul style="list-style-type: none"> <li>• Ask 'why do you think that is?' after a noticing — e.g. why is the puddle shiny?</li> <li>• Invite them to notice something high AND something low at the same stop.</li> </ul>	<ul style="list-style-type: none"> <li>• Have a fast finisher add a second small detail to their drawing — what else did they notice about that same thing?</li> <li>• Ask them to be your 'spotter' at the next stop and choose where the class should stop and look.</li> </ul>

**Cross-curricular hook**

Links to oral language in English and Irish — children practise the full sentence frame 'I notice...' and listen carefully to each other in the sharing circle.