Science Assessment Steps

early steps   >>>   building skills and knowledge   >>>   applying skills

Physical processes

Respond to objects and experiences, e.g. Make sounds with their own bodies, objects by shaking, waving, banging, pulling and tugging them Showing their action causing a change in sound, movement etc. . 1

Identify things using electricity or sources of sound/light
Identify simple forces – push/pull etc. 2

Demonstrate simple properties of light, sound and movement. E.g. knows things are used in different ways - a ball for rolling or throwing, a toy car for pushing 3

Pupils make own observations of changes of light, sound or movement that result from actions and describe changes using some scientific vocabulary. 4

Materials and their properties

Explore and change materials by physical means. Enjoys making marks in food, damp sand, water, mud, paste or paint 1

Indicate before and after of changes in materials, e.g. Wet/dry, temp. Showing response to choice by favoured means. 2

Observe simple changes in materials - in solids, liquids and gases and processes such as heating/cooling. 3

Observe patterns or regular changes in features of objects or materials e.g. changing states of matter. 4

Identify a range of common materials and know about some of their properties 5

Life processes and living things

Expresses awareness of their physical self through their own movements and by touching their own and other's faces and bodies in play and care events 1

Is aware of and interested in their own and others' (including animals) physical characteristics, pointing to and naming features such as noses, hair and eyes 2

Take part in enquiry into specific environments e.g. in grass, mud, puddles, plants, animal life in Polar, Desert, Ocean and woodland places. Explore animals e.g. matching, finding under rocks. Looks closely at small items and creatures 3

Recognising distinctive features of living things in their environment and know where they belong. Including animals, plants and their own bodies. E.g. Can name and identify different parts of the body 4

Observe patterns or regular changes in environments and living things – animals, plants or themselves. E.g. Seasons or can describe in words or actions the effects of physical activity on their bodies.
Talks about the features of their own immediate environment and how environments might vary from one another 5

Created using Birth to 5 Matters, P level statements and Astra Zeneca Science Teaching Trust resources.
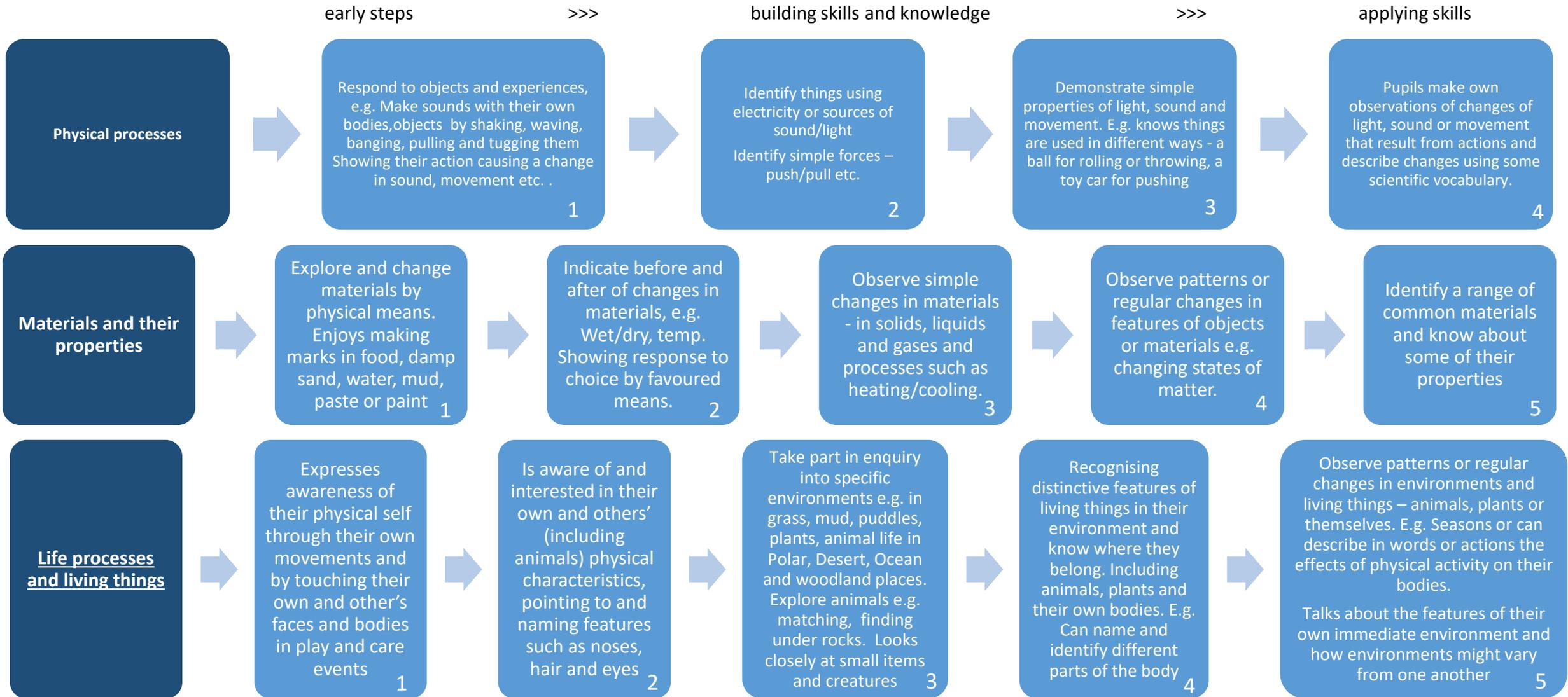
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Discussing & Questioning
→ Show what they did, may use non-verbal communication **1**
→ Talk about what they did, asking 1 or 2 questions usually begin Why! **2**
→ Talk about observations using bigger range of Questions – not all Why! **3**
→ Respond to teachers questions, take turns in discussion and ask a wider range of questions. **4**

Planning and predicting
→ Play with and explore materials in supported way. Showing interest and reacting to new experience **1**
→ Explore objects and materials and respond through gesture. **2**
→ Make a simple statement **3**
→ Suggest what to do e.g. mix sand and water Make a general statement **4**
→ Suggest what to change and refer to previous experiences **5**
→ Make suggestions about what to do and begin to recognise hazards. **6**
→ Talk about similar situations or experiences. Make a guess. **7**

Fair Testing
→ Begin to show an awareness of treating things in the same way **1**
→ Show an awareness of treating things in the same way **2**
→ Start to show an awareness of amounts to use **3**
→ Show an understanding of comparative language **4**

Observing and Measuring
→ Exploring objects in way that is coactive or supported, observe results of their actions. **1**
→ Touch and explore object intentionally, match or say something about it. **2**
→ Observe one feature e.g. the ice is cold, make general sets or identify a change **3**
→ Observe more than one feature, observe a change and sort by size **4**
→ Describe in everyday terms, classify by criteria and use simple equipment. **5**

Recording and interpreting
→ Show simply what they did – use objects to record with supported, consider if simple statement was correct **1**
→ Gather things together, use objects to record with, describe simply what they did and if statement was correct **2**
→ Display collections or use pictures of objects on a chart. Describe simply what happened. **3**
→ Draw/talk about work in everyday terms. Record and describe similarities and differences between results. Say if their guess was correct. **4**