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| **NC statement missed** | **End of KS2 TAF statement** | **Opportunity to Catch up** | **Initial assessment suggestions\*** | **Notes - and highlighted risk**  (Red will need to be planned explicitly in addition to usual topics, Green will fit readily into current units) |
| **Year 3** | | | | |
| **Plants** | | | | |
| identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers | name, locate and describe the functions of the main parts of plants, including those involved in reproduction [Y5] **and transporting water and nutrients [Y3].** | Y4 or Y5 Additional lessons | Big question: Do all plants have leaves?  Explorify – Brown tubes (Zoom in, zoom out)  Active Assessment – Graphic organisers: whole part relationships (adapt for plant parts) [££] | Some basic knowledge of plant parts expected from Y1. Function of flowers to be included in Y5 living things. Functions of other parts could be taught in Y4 with requirements for life and growth (see below) or added to the Y5 living things unit with function of the flower |
| investigate the way in which water is transported within plants | name, locate and describe the functions of the main parts of plants, including those involved in reproduction [Y5] **and transporting water and nutrients [Y3].** | Y4 or Y5 Additional lessons | Explorify – Water colours (Video) |
| explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. | Year 5 Living things | Explorify – Super seeds (Video), Growing seed (Video), Friends of flowers (Odd one out), Sightseeing seeds (Odd one out), Brown and sticky (Zoom in, zoom out) | Expand Y5 unit to include more focus on sexual reproduction in plants and the plant life cycle. |
| explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant | **describe the requirements of plants for life and growth [Y3]** and explain how environmental changes may have an impact on living things [Y4]. | Y4 additional lessons | Concept Cartoon – Cactus Spines (2.11) [££]  Big question – Is a tree alive? | Discrete teaching needed, ideally before Y4 habitats unit, but this builds on Y2 so children should have basic knowledge |

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| **Year 3** | | | | |
| **Animals, including humans** | | | | |
| identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat | describe the effects of diet, exercise, drugs and lifestyle on how the body functions [Y6]. | Cross-curricular  or  Y4 Animals unit | Explorify – What if ... You only ate chips? | Builds on Y2 so children should have basic knowledge. Could be addressed in D&T and through work on healthy lifestyles in PSHE. If not, will need to be picked up in Y4 Animals with food chains and digestion and revisited in Y6. |
| identify that humans and some other animals have skeletons and muscles for support, protection and movement | **name, locate and describe the functions of the main parts of the** digestive [Y4], **musculoskeletal [Y3],** and circulatory systems [Y6], and describe and compare different reproductive processes and life cycles, in animals [Y5]. | Y4 or Y5 Additional lessons | Explorify – What if… My bones were bendy? | Some understanding of internal skeleton needed to classify as vertebrates in Y4 and Y6. Ideally teach discretely before Y4 habitats, if not then teach in Y5. Limited depth needed – antagonistic muscles not needed until KS3 |

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| **Year 3** | | | | |
| **Rocks** | | | | |
| compare and group together different kinds of rocks on the basis of their appearance and simple physical properties | **group and identify materials** [Y5], **including rocks [Y3], in different ways according to their properties, based on first-hand observation;** and justify the use of different everyday materials for different uses, based on their properties [Y5]. | Y4 Habitats unit  or  Y5 Materials unit | Explorify - Mysterious Material (Odd one out)  Explorify – Why don’t all rocks look the same? (Big question)  Rock hunt around the school  Sort rocks – own criteria | Understanding of properties in relation to rocks could be included in Y4 habitats or Y5 materials to teach specific properties and provide context for fossils. Rock cycle not needed (taught in KS3). |
| recognise that soils are made from rocks and organic matter | Y4 Habitats unit | Big Question – Where did the soil in our nature area come from? | Include soil as a component of a habitat. |
| describe in simple terms how fossils are formed when things that have lived are trapped within rock | use the basic ideas of inheritance, variation and adaptation to describe how living things have changed over time and evolved [Y6]; **and describe how fossils are formed [Y3]** and provide evidence for evolution [Y6]. | Y6 Evolution unit | Odd one out – fossil, rock, skeleton Explorify – Signs of life (odd one out) | Include additional lessons. |

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| **Year 3** | | | | |
| **Light** | | | | |
| recognise that they need light in order to see things and that dark is the absence of light | **use the idea that light from light sources, or reflected light**, travels in straight lines and **enters our eyes** to **explain** how we see objects [Y6], and **the formation [Y3]**, shape [Y6] **and size of shadows [Y3].** | Y4 or Y5 Additional teaching | Concept Cartoon – Seeing in the dark (7.1), White cat (7.4) [££] | Basic knowledge from EYFS likely. Understanding of light sources needed for Earth and space |
| notice that light is reflected from surfaces | Concept Cartoon – Sunglasses (7.7) [££]  Explorify – Shiny things (Odd one out) | Needed for Y6 light  Needed to understand that the Moon is not a light source |
| recognise that shadows are formed when the light from a light source is blocked by an opaque object | Y5 Earth and space unit  Y5 Materials unit  Y6 Light unit | Explorify – Shadow shapes (video)  BBC Bitesize light and shadow [www.bbc.co.uk/bitesize/clips/zshxpv4](http://www.bbc.co.uk/bitesize/clips/zshxpv4) | Include teaching about shadow formation in Earth and space – observe shadows changing during the day (observation over time).  Transparency as a property in Y5 materials  Controlled investigation of changing shadows in Y6 Light unit |
| find patterns in the way that the size of shadows change |
| recognise that light from the sun can be dangerous and that there are ways to protect their eyes | Not specified in TAF | Y5 Earth and space unit | Concept Cartoon – Sunglasses (7.7) [££] | Safety mention before making observations of apparent movement of the Sun |

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| **Year 3** | | | | |
| **Forces and magnets** | | | | |
| compare how things move on different surfaces | **describe the effects of simple forces that involve contact** (air and water resistance, **friction**) [Y5], **that act at a distance (magnetic forces, including those between like and unlike magnetic pole) [Y3]**, and gravity [Y5]. | Y5 forces unit | Explorify – Black bobbles (Zoom in, zoom out) | Friction is included in Y5 forces – adjust starting point for the unit |
| notice that some forces need contact between two objects, but magnetic forces can act at a distance | Explorify – Magnets (video), Pull together (Odd one out) | Include identifying forces as contact and non-contact in Y5 unit |
| observe how magnets attract or repel each other and attract some materials and not others | Y4 or Y5 Additional magnets lessons  or  Y5 materials | Need to have taught short unit introducing the behaviour of magnets and response to magnets as a property before Y5 forces units. If materials unit is taught before forces in Y5 these lessons could be included.  If there needs to be more focus in Y5 materials on catch up investigations of properties (possibly rocks, transparency and magnetism) consider splitting into separate shorter units on properties and changes. |
| compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials | **group and identify materials** [Y5], including rocks [Y3], **in different ways according to their properties, based on first-hand observation;** and justify the use of different everyday materials for different uses, based on their properties [Y5]. |
| describe magnets as having two poles | **describe the effects of simple forces that involve contact** (air and water resistance, **friction**) [Y5], **that act at a distance (magnetic forces, including those between like and unlike magnetic pole) [Y3]**, and gravity [Y5]. | Observe and predict with a range of different magnets |
| predict whether two magnets will attract or repel each other, depending on which poles are facing |

*\* Main sources of initial assessment activities included in this document (further assessment resources ideas are included in the ‘How to Guide’):*

* *Explorify* [*https://explorify.wellcome.ac.uk/*](https://explorify.wellcome.ac.uk/)
* *Concept Cartoons – Stuart Naylor and Brenda Keogh* [*https://www.millgatehouse.co.uk/*](https://www.millgatehouse.co.uk/)
* *Active Assessment – Stuart Naylor, Brenda Keogh, Anne Goldsworthy* [*https://www.millgatehouse.co.uk/*](https://www.millgatehouse.co.uk/)