

Types of enquiry: identifying & classifying (KS1 & KS2)

The new science curriculum puts working scientifically at the heart of primary science and there's increased focus on children learning to work as scientists rather than just acquiring scientific knowledge.

Transcript

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The Ogden Trust Making Physics Matter
Amanda Poole

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Some types of questions in science involve looking at differences and similarities in

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things and thinking about how you might group them. For these sorts of questions it's good

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to do identifying and classifying enquiries. There are a whole range of questions here, and often people

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think this will be biology topics, but there are lots of opportunities in physics and chemistry for

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children to look for similarities and differences, and think about how they might group things. The

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types of big questions we might ask here are: how are rocks similar to each other; which materials

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are conductors; are all soils the same. Perhaps even looking at astronomical objects and thinking about

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how they might be grouped. When doing this kind of work, there's a lot of observation involved and

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it's a great opportunity for children to practise their skills in observational drawings. We really

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want that skill to become more finely tuned as the children get older. A fantastic way of doing

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this, if you get something as simple as a packet of chocolate chip cookies and give each child a

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chocolate chip cookie to do a really detailed drawing of, they then have to justify why that

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is their cookie, using their drawing as evidence. This really encourages them to look for fine

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detail and make sure it's there. When children get into Years 3 & 4, we like to use Carroll and

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Venn diagrams for them to use their math skills to display the observations that they've made and

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help them think about how objects can be grouped. They also can use identification keys to identify

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particular fossils, rocks, plants and animals. As children move into Years 5 & 6, you want to add that extra

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challenge, so we start to think about how they might create their own keys. A great way to get

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children thinking along the right lines for this is to play 20 questions, where they have a sticker

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on their head, where they are a particular plant or an animal, and they work with a partner to think of

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yes-or-no questions to try and identify who they are or what they are. This is a marvellous way for

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children to develop an understanding of yes and no questions but also think what are the best

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types of questions to get into the identifying as quickly as possible. A fantastic resource that

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we've used recently for identifying and classifying, is the Zooniverse website. They have a huge range of

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citizen science projects, photographs, video clips, all sorts of data from science teams across the

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world. They have so much data, they need help with identifying and classifying. The children can

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be part of a real-life science project and see how scientists work in collaboration

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around the world. Projects on here range from identifying chimps in the jungles of Africa, to

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this huge range of astronomical projects where you're helping discover planets orbiting stars

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or classify craters on the moon. Each project has a great introduction where it's really clear on

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how the children will go about identifying the things in the photos or videos and then they can

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contribute to a global science project and see how scientists work in collaboration around the world.

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