

TAPS-NI Progression in Science Skills





Topic: Colour, materials, on my plate	Primary 3/4 Age 6-8 years	Activity title: Separating colours
Science skill focus Questioning	Curriculum link: Change over time Materials can interact with each other (CoT1)	

Progression Focus

- Can children raise enquiry questions?
- Can children suggest ideas to investigate their questions?

Activity Today we are food technologists.

Set up a plate with coloured sweets (e.g. skittles) around the edge, placing different colours next to each other. Discuss with children what will happen when water is added. Prompt them to explain their thinking. Add warm water and observe. Discuss what happens. Ask children to raise their own 'what if...' questions to investigate e.g. different water

Ask children to raise their own 'what if...' questions to investigate e.g. different water temperatures, different numbers/closeness of sweets, different type/patterns of sweets, different plate/put filter paper underneath etc.

Discuss findings. Could record with photo or drawing, with child labelling their question.

Adapting the activity

Support: Stimulate questions by providing equipment eg thermometers, different sweets.

Extension: Use a stopwatch to record time taken for colour to reach a certain point.

Other ideas: Try pen chromatography (using coloured pens on filter paper instead of sweets)

Questions to support discussion

- What do you think will happen?
- What is happening to the sweet colouring?
- What do you notice?
- What else could we try?
- What questions could we investigate?
- Which question would you like to focus on?
- What did you find?

Pupil learning indicators

Not fully achieved: Pupils put forward a range of ideas, but find it difficult to focus on one line of enquiry.

Achieved: Pupils generate a range of ideas and questions. They choose a question and focus on this in their investigation e.g. *my question is will it be slower with cold water? I'm finding out what will happen if we put the sweets further apart..*

Exceeded: Pupils might use their own and others' results to raise further questions e.g. *So if it goes faster with hotter water, can we use really hot water?* (NB. No higher than 50°C should be used in class).

