

Moving on...Yes /No Game: using a passport to help

Game: the teacher is thinking of an object in the classroom. Can you find out what it is in as few questions as possible?

The pupils already understand the idea the idea of reducing the search space when finding out a number. How can this be done for an object? Expanding the strategy.

Possible procedure:

- The teacher first lets the pupils try themselves to find out the object. When it becomes clear that this cannot be done in only a few questions by guessing, it's time to introduce a strategy.
- The teacher could first ask the pupils to name what kinds of objects can be found in the classroom. A table like the one below can be filled in to make the thinking visible and to see how the problem can be broken down into parts. What are the features of an object?

	Features	Examples of possible questions to narrow the search space
	Type of object	Is it furniture, school supplies, personal belongings, a part of the building....?
Finding a particular object in the classroom	material	made of wood, metal, paper, plastic....?
	colour	Is it red, blue etc...?
	size	Is it large /medium-sized/ small?
	use	Do we need it to write/ listen to / see through?
	location	Is it at the front of the class / back of the class...?

When playing, remember to write down the questions and reflect on them afterwards!

- Which are the most useful features to ask about?
- Which are not useful? (*For example, size is relative...pupils might notice it's better to ask, 'Is it smaller than a...'?*)
- Can we find the most useful feature, so that we can find out the answer very quickly? The tool for recording the overall number of questions needed and strategies used can also be used here to record progress in thinking.
- When the pupil find the most useful feature, questions regarding it can be eliminated in the next game, thus increasing the challenge.

Moving on – transfer to novel situations. An example: Pupils have to find out what country (it could be anything that they have to think of, and it can therefore practise curriculum content at the same time.)

What would be the features of a country? Can the pupils list them and think of appropriate Yes/No questions? If pupils have difficulty finding features, they could make a list of countries and find ways of sorting the countries into groups. The names of the groups will suggest features. (Possible group names, which the pupils should come to themselves: size, location, first letter, political system, population, geographic features, what famous for...)