

SOUTHEAST ASIA! 45MINS-IHR

- Use world maps, atlases and globes to identify the United Kingdom, as well as the countries, continents and oceans studied at this key stage.
- Use simple compass directions (North, South, East and West) and locational and directional language [for example, near and far; left and right], to describe the location of features and routes on a map.
- Locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities.
- Understand and apply the principles of a healthy and varied diet.

LEARNING OBJECTIVES

- PowerPoint presentation for the lesson.
- Selection of cauliflowers, including a Romanesco variety.
- Magnifying glasses.



RESOURCES

- If applicable, recap on the previous lesson and geography points, asking children to share some of the knowledge they learnt and locating the area on a World Map.
- 2. What place do you think this is?
- 3. What do you already know about Southeast Asia?
- 4. Ask the children to locate Asia and then South East Asia on the world map. Use positional language to describe the location of different countries.
- 5. Ask the children to use an atlas to name the different seas and oceans in this area.
- 6. Talk to the children about the type of food that South East Asia is known for:

The cuisine of South East Asia has been influenced by lots of different cultures over the years. There is a strong emphasis on Chinese and Indian cooking but also from the French occupation in Vietnam and Cambodia.

The cooking of food is usually quick and efficient - there are very few ovens in South East Asia. This means that vegetables are typically chopped into small pieces so that the food will cook very quickly. Most of the food is cooked by quick blanching (where you put something into boiling water quickly), stir frying (where food is cooked quickly in a wok/pan over a high heat) and steaming (where the food is cooked in the steam above the boiling water).

A lot of the ingredients are similar throughout most of the region but are changed slightly to suit each cultures' palate and taste. Popular meals in South East Asia consist of rice, fish, vegetables, fruits and spices.

LESSON OUTLINE

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Flavourings that are common include ginger, pepper, chilli peppers, onions, garlic, soy sauce, fish sauce as well as tamarind and lime (for a sour taste). Unique combinations of sweet and sour, or hot and sour, hot and sweet, are all common in lots of the regions. Popular vegetables are sweet potatoes, sweet corn, taro, tapioca, legumes, and leaves of many green plants.

One vegetable that works particularly well in this cuisine whether in curries, pickled, or to soak up spices and flavours, is cauliflower. There are many different kinds, including the rather unique "Chinese cauliflower" and the beautiful Romanesco. Romanesco cauliflowers have a remarkable fractional structure known as a Fibonacci or The Golden Spiral fractal. This pattern is where the next number in the sequence is found by adding up the two numbers before it.

This gives 0, 1, 1, 2, 3, 5, 8, 13, etc. On a typical cauliflower, you can expect to see five spirals going clockwise and eight anticlockwise, or vice-versa.

Activity

- 1. Use the pattern that is on the cauliflowers to begin a discussion of patterns in maths and also extend this to other examples of the Fibonacci Spiral in nature.
- 2. Model how to use a magnifying glass.
- 3. Provide children with the cauliflower to explore.
- 4. Ask them to mark on the cauliflower where the spirals are.
- 5. They can also explore these patterns in broccoli, the heads of sunflowers, cobwebs, clouds, shells, leaves and ferns.

Filling in the lesson information on their map

From the information shared in the lesson today, fill in the box on the children's individual world map that relates to Southeast Asia.

- This is a great activity to research more at home and find other Fibonacci patterns in
- If you want to extend this further the children may be able to create their own fractionals on a computer using the appropriate apps.

https://prezi.com/-9lln2x_isx0/applying-fibonaccis-secuence-to-fruits-and-vegetables/ (Graphics showing the different patterns)

https://youtu.be/_1Cv4HybU20 (Teacher with class)

https://youtu.be/ptY7JqfjT6Q (More scientific explanation)

