





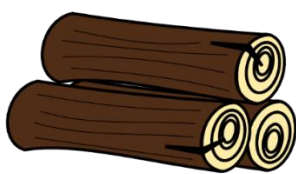
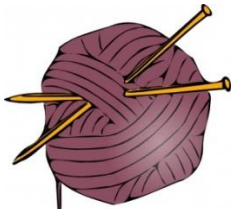

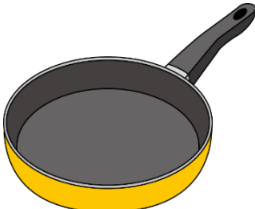



# Year 4 - Creating Processed Materials

## TEACHER REFERENCE GUIDE

With Street Science, you became a junior scientist and **processed materials** to produce some cool caviar, wacky worms and polymer balls!

1. Some of the materials we encounter everyday are **natural** products. Some materials are **processed** to have different properties.

Circle 'Natural' or 'Processed' to describe each of the materials below.

		
Natural or Processed	Natural or Processed	Natural or Processed
		
Natural or Processed	Natural or Processed	Natural or Processed
		
Natural or Processed	Natural or Processed	Natural or Processed

2. Choose one processed material from above and describe how it is used. Explain which of its **properties** make it useful for that purpose.

*e.g. The metal used in a fry pan is flat, smooth, non-stick and coated in plastic so that food does not stick to it and you do not burn your hand when you touch the handle.*



3. Alginate starts as brown seaweed in the ocean. Work in groups to correctly order the events below, showing how seaweed becomes the product that you used today! (Hint: you might have to do a little research!)

3	The pieces are washed in plain water, and in an <b>acidic solution</b> to help the alginate particles <b>get bigger</b> .	
5	The brown coloured liquid is strained to become <b>clear</b> , and remove any <b>debris</b> .	
1	Seaweed that grows naturally in the ocean is <b>harvested</b> by seaweed farmers.	
6	The alginate is forced to <b>crystallise</b> . These crystals are dried and can be crushed into a powder.	
4	The seaweed is removed from the acidic solution, and is put into a mixture of caustic soda, so it can be <b>extracted</b> from the seaweed.	
2	The seaweed is <b>dried</b> until it is crispy, and is then <b>crushed</b> into smaller pieces.	
7	Crushed alginate powder can be <b>combined</b> with many liquids, to create squishy solids!	