

Key Words:

Industry, Innovation, Infrastructure, Education, Healthcare, Water, Electricity, Telephones, Internet, Roads, Credit, Funding, Technology

Aims and outcomes:

- To define industry, innovation, and infrastructure.
- To recall some basic types of infrastructure.
- To understand that industry and innovation are reliant on infrastructure.
- To recognise the importance of industry, innovation, and infrastructure.
- To understand and recall solutions to achieving industry, innovation, and infrastructure.

Curriculum links:

- **English:** 'learn the conventions of different types of writing (for example, the greeting in letters, a diary written in the first person or the use of presentational devices such as numbering and headings in instructions) ...'
- **Geography:** 'interpret a range of sources of geographical information, including maps...'

Lesson Plan 1: What is infrastructure and why do we need it?

Key question	Activity	Timing
What is infrastructure and why do we need it?	<ul style="list-style-type: none">• Read students the introduction section of the 'Industry, Innovation, and Infrastructure' page.	<i>10 min</i>
	<ul style="list-style-type: none">• Split the class into 7 groups.	<i>2 min</i>
	<ul style="list-style-type: none">• Allocate each group one of the types of infrastructure. These are 'Education', 'Healthcare', 'Water', 'Electricity', 'Telephone and Internet' and 'Roads'.	<i>5 min</i>
	<ul style="list-style-type: none">• Ask students to discuss their type of infrastructure as a group.	<i>10 min</i>
	<ul style="list-style-type: none">• Ask each group to summarise their type of infrastructure to the class. Invite the class to ask the presenting group any questions.	<i>10 min</i>

Resources and materials:

- SuperKind website – 'Industry, Innovation, and Infrastructure', 'The Problem'
- Interactive whiteboard, computers, tablets, or printouts to display website

Lesson Plan 2: What needs to be done to promote industry, innovation, and infrastructure?

Key question	Activity	Timing
What needs to be done to promote industry, innovation, and infrastructure?	<ul style="list-style-type: none"> Split the class into 4 groups. 	<i>4 min</i>
	<ul style="list-style-type: none"> Allocate each group one of the solutions to 'Industry, Innovation, and Infrastructure'. These are 'Funding', 'Research and Technology', 'Improve Access to Credit', and 'Sharing Knowledge'. 	<i>2 min</i>
	<ul style="list-style-type: none"> Ask students to use the SuperKind website to work together within their group to make a poster on their allocated solution. Signpost students to the SuperKind 'Make a Poster' toolkit. 	<i>10 min</i>
	<ul style="list-style-type: none"> Ask each group to present their ideas to the class. Invite the class to ask the presenting group any questions. 	<i>10 min</i>

Resources and materials:

- SuperKind website – 'Industry, Innovation, and Infrastructure', 'The Solution'
- SuperKind website – 'Make a Poster'
- Interactive whiteboard, computers, tablets, or printouts to display website
- A3 sheets of paper
- Pens, pencils, highlighters, felt pens

Lesson Plan 3: How can we help promote industry, innovation, and infrastructure?

Key question	Activity	Timing
How can we help promote industry, innovation, and infrastructure?	<p>Note₁: Before the class you will need to draw a very basic map of the town on a large sheet of paper.</p> <p>Note₂: You may wish to ask your class to bring in scrap materials for modelling (e.g. cereal boxes or plastic bottle lids etc) in advance.</p> <ul style="list-style-type: none"> Tell the class that you will be making a 3D model of a town and planning the infrastructure that is needed for the people in the town to live and thrive. 	5 min
	<ul style="list-style-type: none"> Split the class into 6 groups and assign each group a type of infrastructure that they will be responsible for supplying to the town. These are: 'Education', 'Healthcare', 'Water', 'Electricity', 'Telephone and Internet', and 'Roads'. Please note we have omitted 'Credit' since it is harder to model. Students could for example build a school out of cardboard, or water pipes out of blue pipe cleaners, or electricity lines by hanging string on top of straws. 	5 min
	<ul style="list-style-type: none"> Give students time to plan and build their infrastructure, laying out on the map of the town that you have put together. Roam the class offering guidance to those in need. 	25 min
	<ul style="list-style-type: none"> Ask students to present and talk through their infrastructure to the class. Invite the class to ask any questions to the presenting group. 	10 min

Resources and materials:

- SuperKind website – 'Industry, Innovation, and Infrastructure', 'Take Action'
- Interactive whiteboard, computers, tablets, or printouts to display website
- Large sheet of paper with drawn on town
- Glue, tape, and string
- Cardboard for modelling (you can use scraps if you have them)
- Any other materials available for modelling. Consider: pipe cleaners, pom-poms, bottle caps, straws, drinks stirrers, lollipop sticks.
- Pens, pencils, highlighters, felt pens