# 2040 - Talking About Transport



Name	Class

# **Teaching Sequence**

#### Work through this resource material in the following sequence:

10 minutes	Part A: Activating Prior Knowledge
15 minutes	Part B: Types of Transport
30 minutes	Part C: The Future is Here
5 minutes	Reflection

## **Preparation - Optional**

In this lesson, students will be looking to the future to imagine what transport might look like. Students may also find it useful and interesting to learn what has happened in the past and how transport has already changed. One way to do this is through research in your library or online. Another way would be to interview people from the generation of your students' grandparents. You could do this by developing a range of questions to find out things like:

- What types of transport were and weren't available when our grandparents were our age?
- · Who had access to transport when our grandparents were our age?
- How transport has changed since our grandparents were our age until the present?
- What did our grandparents imagine future transport to look like when they were our age?

The **Interview Factsheet** can be used to help you plan and design your interviews.

You could then use the results of your interviews to deepen your analysis of student transport use in this lesson, as well as help inform students ideas for future forms of transport.

# **Part A: Activating Prior Knowledge**

### Step 1.

Begin this lesson by distributing a copy of the Student Worksheet to each student. Invite them to find the first activity – *Three Short Interviews*. Explain to students that they need to interview three people in the class to find their answers to the questions (also available on the Student Worksheet). Explain to students that when giving answers they should try to keep them as brief as possible so that the interviewer can write the answers down.

- What is transport?
- What do you need transport for?

Allow students time to conduct their interviews. Once complete, bring the class back together to share their answers. Suggest to students that the answers could include the following:

- Transport takes people and things from one place to another using cars, trucks, ships or planes, etc.
- We need transport to move us around every time we leave our houses. We also need transport to bring things to us.

Finally, explain to students that in this lesson they will be exploring different types of transport that currently exist and investigating why we need new types of transport.

## **Part B: Types of Transport**

## Step 1.

Now, work as a class to create a list of different types of transport that they know of. Record your list on the board. Suggestions could include:

Car
Bicycle
Tractor
Horse riding
Motorbike

Bus Skateboard/Scooter Tram Truck Walking Plane Boat Train

#### Step 2.

Now, invite students to access Table 1 on the Student Worksheet. Students should work independently to add the types of transport they have used in column A. They should then add the frequency that they use these types of transport in column B using the following codes:

- D = Daily
- W = Weekly
- O = Occasionally

In column C, invite students to think about other members of their family and to add the same codes.



You can also demonstrate this activity for your student by listing your own travel habits on the board.

Consider inviting student volunteers to share their responses with the class.



If you have completed the Preparation activity (interviews with people from grandparents generation), you could also invite students to reflect on how their transport use compares to past use.

## Step 3.

Invite students to participate in a THINK PAIR SHARE activity to answer the following questions (questions also available on the Student Worksheet):

- Which of these types of transport are good for people and the planet?
- Why might it be important to think about this?
- How might you make more regular use of planet-friendly transport?
- How could you inspire your family to consider more planet-friendly transport options?

#### **Think Pair Share**

Think pair share is a collaborative learning strategy in which students work together to solve a problem or answer a question.



Think - students independently think about an issue or question and record their thoughts.

Pair - students work in pairs to discuss their ideas and record new thoughts.

Share - students share their thoughts with the whole group or with other pairs to reach consensus.



To get students thinking about what a better transport future, consider showing them the following clip, What's Your 2040 -

For Transport? Password: 2040EDU

#### Step 4.

Allow students time to reflect on these questions independently and individually before inviting students to bring their ideas to a class discussion. Through your discussion, explain that some types of transport create problems for people and the planet, for example:

- · Vehicles that rely on fossil fuels create pollution that can cause climate change
- More people are spending time in cars. Active transport is a way to keep healthy
- Beyond personal forms of transport, the distance we ship our products is also a big issue (e.g. food miles)
- Because of these issues, there is a push to develop more sustainable forms of transport that also continue to allow people to move around the areas they live in



If you would like to deepen students' learning about the sustainability of different types of energy sources visit, the <u>2040 - Exploring Energy</u> lesson.

#### Step 5.

Invite students to suggest some of the new and innovative types of transport that they might be aware of. These can be forms of transport that are still being tested and designed or vehicles that are in use but not yet available to them, for example:

- Driverless cars
- Flying cars (seriously!)
- · Electric vehicles
- · Bullet trains
- Robots (e.g. drones) that deliver mail and shopping

If your students completed the Preparation activity (interview with grandparents generation), you could also invite them to suggest how their ideas might differ to the ideas people from their grandparents' generation had when they were the age of students.



If students are interested in future transport options, consider exploring these options through further discussion or inquiry.

Explain to students that in the next part of this lesson they will be exploring new types of transport in more detail.

## Part C: The Future is Here

## Step 1.

Share the following clip from 2040 with students, explaining that it shows a driverless car. As students watch, invite them to record anything they find surprising or interesting in the clip:



#### 2040 - Transport Case Study Password: 2040\_EDU

Once complete, invite students to share their thoughts about this clip through class discussion. Consider using the following questions in your discussion:

- What is this clip about?
- What did you find interesting, surprising or inspiring about this clip?
- What does this clip make you think about?
- What questions do you have about this clip?



Consider using the questions generated in the final point to guide further inquiry.

Through your discussion, explain to students that even though it looks futuristic, this clip describes a type of transport that is available right now. And, if this is what is happening now, what might future transport look like?

#### Step 2.

Explain to students that they will now work in groups to imagine a sustainable form of transport for the future.

Share the following clip from 2040 as stimulus, to help students start thinking about how transport can help us while having a low environmental impact:



**2040 Transport of the Future Password: 2040\_EDU** 

OR



2040 - Car of the Future Password: 2040\_EDU

Once complete, invite students to suggest answers to the following:

- What did you like about this clip?
- What do you find interesting or surprising about this clip?
- What do you want to know more about?

#### Step 3.

Explain to students that the first step in planning transport for the future is to think about what we might need in the future.

Break the class into groups of three or four students and project the following images onto the whiteboard (link to this image is **available here**) or computer screen (also available on the Student Worksheet):



Invite each group to think about what they imagine we will need in terms of transport in the year 2040. For example, we need transport that is small enough to transport one person at a time; it is a waste of space for one person to drive a car that actually seats five people.

Each group should record their ideas in bullet form.

#### Step 4.

Now, invite students to think of a solution to each of the needs they identified. For example, referring back to the transport big enough for just one person, you could use the rocket boots described in the clip, or a small flying pod. Encourage students to be as creative and inventive as they like and not focus on feasibility or the likelihood of it occurring.

#### Step 5.

Next, invite groups to look at their list and to think about how each of the transport ideas they've generated relates to sustainability:

How could this idea be environmentally sustainable?

For example, referring back to the transport big enough for just one person, the transport would need to be made from recycled materials and would run on green power.

#### Step 6.

Each group should select one transport idea for the future. Each group then needs to create a rough sketch of this idea and annotate this sketch to describe the features of the transport they are presenting.

#### Step 7.

Work with students to create a gallery walk of transport ideas:

# **Gallery** walk

A gallery walk enables students to provide feedback on their peers' work.

Display students' work around the classroom and place a piece of blank paper next to each work to collect votes on. Invite students to move around the room viewing each others' work, then vote for their three favourite posters.

As an extension, students could also record one thing they like about the posters displayed, one thing they wonder, and one thing that may improve the work.

## Reflection

Invite students to work independently to answer the following questions (also available on the Student Worksheet):

- What ideas presented in this lesson were connected to what you already knew?
- What ideas presented in this lesson pushed you in new directions?
- What is still challenging for you?

# **Differentiated Learning**

#### **Extension:**

- Students could research other future transport ideas in more detail or look to transport solutions using the 2040 website's <u>Transport</u> section.
- After the gallery walk, students can take their peers' feedback and use it the refine their designs.

**Provisions for Learning Support:** Students who require extra support can work in smaller groups or pairs for group activities.

## Take It Further

To expand on student's learning in this lesson, consider following up with this lesson: <u>Taking Action For Your 2040 – Years 5 & 6</u>.

The 2040 team have created a range of clips specifically for use in Primary classrooms. Access the whole package of 2040 Primary clips at the following link, **2040 EDU: PRIMARY - INTEGRATED Password: 2040INT.** 

## **Teacher Reflection**

#### Take this opportunity to reflect on your own teaching:

- What did you learn about your teaching today?
- · What worked well?
- What didn't work so well?
- · What would you share?
- · Where to next?
- How are you going to get there?

## What's Your 2040?

Record your students' work in their communities with the hashtag #whatsyour2040 and share their visions in the '2040: <u>The Regeneration' Facebook Group</u>.

The 2040 crew would love to see your class's work.

These lessons have been created in partnership with

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