

# Training Module 12 Day 3

# **Session notes for IQTE trainers**

Wrap up <u>4—4.15</u>pm

Day 3	Day 2	Day 3
Session 1: 9.30—10.30am Reconnecting/ Sharing experiences	Session 1: 9.30—10.30am Teaching Maths	Session 1: 9.30—10.30am Teaching Maths
Session 2: 10.30—11.30am Teaching Maths	Session 2: 10.30—12pm Teaching English	Session 2: 10.30—11.30am Teaching English
Tea break 11.30—12pm	Tea break 12—12.30pm	Tea break 11.30—12pm
Session 3: 12—1pm Teaching English	Session 3: 12.30—1pm Teaching Social Studies	Session 3: 12—1pm Teaching Social Studies
Lunch 1—2pm	Lunch 1—2pm	Lunch 1—2pm
Session 4: 2—3pm Teaching Social Studies	Session 4: 2—3pm Teaching Hausa	Session 4: 2—3pm Teaching Hausa
Session 5: 3—4pm Teaching Hausa	Wrap up 3—4pm	Wrap up 3—4pm

To make:  Word bingo picture flash cards: make pictures to match each word from Chart 2	To collect:  Bottle tops (48 for each group)		Module 12 Day 3 Page 3
Session 1: Materials/Charts/ Handouts	Session 2: Materials/Charts/ Handouts	Session 3: Materials/Charts/ Handouts	Session 4: Materials/Charts/ Handouts
Flip chart or chalkboard, markers	Flip chart or chalkboard, markers	Flip chart or chalkboard, markers	Flip chart or chalkboard, markers
Bottle tops (48 for each group)	Chart 2: Word bingo	Handout 2: Modern and	Chart 8: Bird picture
Chart 1 and Handout 1: Multiplication table (one handout for each participant)	Word bingo picture flash cards  A4 paper (one for each	traditional means of transport and communication (one for each participant)	A4 paper
Materials 1: Finding prime factors with factor trees	participant) and pencils  Bottle tops	Chart 6: Modern and traditional means of transport and	
A4 paper (one piece for each participant)	(four for each participant)  Chart 3:	communication Chart 7: Pictures of transport	
and pencils	The ladder of writing Chart 4: Introducing myself	and communication  Materials 2: Discussion questions	
	Chart 5: Teaching guided composition	(a different question for each group) Tape	

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4—4.15pm		

# **Session 1 9.30—10.30am**

### **Teaching Maths**



#### **Learning outcomes**

By the end of this session, the participants will be able to:

use a multiplication table to find the factors of a number

use a factor tree to find the factors of a number

find the highest common factor (HCF) of a given pair of numbers



#### **Materials**

Flip chart or chalkboard, markers

Bottle tops (48 for each group)

Chart 1 and Handout 1: Multiplication table (one handout for each participant)

Materials 1: Finding prime factors with factor trees

A4 paper (one piece for each participant) and pencils

# **Session 1 9.30—10.30am**

### **Teaching Maths**

### activity 01

**Time** 20 minutes

**Finding factors** 

Ask a volunteer to lead an opening prayer. Then explain that in this session they will work on finding the factors of given numbers.

### 1 Finding factors with bottle tops

Remind the participants that, when they are introducing Maths concepts to their pupils, it is best to start with practical methods. Give each group 48 bottle tops. Explain that they will use the bottle tops to do simple division and find the factors of given numbers.

Do an example together with the number 12. Tell them to count out 12 bottle tops. Then ask them to divide the group of 12 bottle tops into smaller groups without a remainder to find the factors. Ask, 'What smaller groups did you find?' (2 x 6, 6 x 2, 3 x 4, 4 x 3) 'So what are the factors of 12?' (2 and 6, 3 and 4)

Ask them to work in groups using the bottle tops to find factors. Tell them to choose numbers up to 48 and divide them by 2, 3, 4, 5 and 6 without a remainder. Move around the room, checking on their work and helping where necessary.

.....

Bring the whole class together. Ask them to say a few examples of factors that they found.

### 2 Finding factors with the multiplication table

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Explain that another way of finding the factors of a number is to use a multiplication table. Show Chart 1: Multiplication table. Point out the number two row running horizontally and the number two column running vertically. Ask, 'What do you notice?' (The numbers are the 2 times table.)

Repeat with the number 6. Then ask volunteers to show how to use Chart 1 to find the number 12 and the factors of 12.

•••••

Give each participant

Handout 1: Multiplication
table. Write these numbers:

Tell them to work in pairs and find the factors of these numbers using Handout 1. Then bring the whole class together.

Go through each number in turn and ask volunteers to show the factors on Chart 1. Guide them to the answers:

.....

••••••

18: 2 x 9, 3 x 6

20: 2 x 10, 4 x 4

24: 4 x 6

36: 4 x 9, 6 x 6

42: 6 x 7.

<sup>&#</sup>x27;18, 20, 24, 36, 42'

### activity

#### Time 20 minutes

**Finding prime factors** with factor trees

Ask, 'Who can say what a prime number is?' (a number with only two factors: number 1 and itself) Remind the participants that yesterday they looked at how to express a number as its prime factors. Ask, 'How do we do this?' (Write the number just as prime numbers multiplied together.)

Explain that you will now show them how to find the prime factors of the number 36 using a factor tree. Lead them through the process, checking for understanding with each step:

•••••

Tell them to find 36 on their multiplication table.

Ask, 'What are the factors of 36?' (4 x 9, 6 x 6)

.....

•••••

Tell them that you will start with 4 x 9.

Draw the top lines of example 1 from Materials 1: Finding prime factors with factor trees on the flip chart or chalkboard.

•••••

Write '4 x 9'.

Ask, 'Are 4 and 9 prime factors?' (no)

•••••

Draw the lower lines of example 1.

Write '2 x 2' and '3 x 3'.

Ask, 'Are 2 and 3 prime?' (yes)

Point to 2 x 2 x 3 x 3. Ask, 'What is 2 x 2 x 3 x 3?'

•••••

•••••

Repeat with example 2 from Materials 1.

Point out that the prime numbers are the same in both factor trees.

Give each participant a piece of A4 paper. Tell them that they will work in pairs. First they will find the factors of 48 on the multiplication table. Then they will find the prime factors of 48 by drawing a factor tree. Move around the room, helping where necessary.

Bring the whole class together and ask a volunteer to draw the prime factor tree on the flip chart or chalkboard. (It should show factors 6 x 8 as factors of 48, and 2 x 3 x 2 x 2 x 2 as prime factors.)

•••••

# activity 03

#### **Time** 20 minutes

### Highest common factors

Remind the participants that yesterday they looked at the lowest common multiple of two numbers. Ask, 'What is the lowest common multiple of two numbers? (the smallest number that is in both numbers' times tables)

Tell them that sometimes we want to find the highest common factor (HCF) of two numbers. Explain that the HCF is the highest number that divides exactly into each of two or more numbers. Tell them that you will demonstrate how to find the HCF of 12 and 30.

Follow these steps, checking for understanding:

.....

......

Ask, 'How do we express 12 as its prime factors?'

Write '12 =  $2 \times 2 \times 3$ '.

Ask, 'How do we express 30 as its prime factors?'

.....

•••••

Write '30 =  $2 \times 3 \times 5$ '.

Ask, 'Which numbers are prime factors of both 12 and 30?' (2, 3)

Say, 'To find the highest common factor of 12 and 30, we multiply 2 by 3.'

Write '2 x 3 = 6'.

Say, 'The highest common factor of 12 and 30 is 6.'

Write 'HCF = 6'.

Demonstrate how to find the HCF of 10 and 20 in the same way.  $(10 = 2 \times 5, 20 = 2 \times 2 \times 5,$  $HCF = 2 \times 5 = 10)$  Write these pairs of numbers:

**'8.** 32

'15, 30'

'6, 18'

Ask the participants to work in groups to find the HCF of each pair of numbers. Move around the room, helping where necessary.

Bring the whole class together. Go through each pair of numbers in turn, asking a volunteer to say the answer and to show on the flip chart or chalkboard how they arrived at their answer. (HCF of 8 and 32 is 8; HCF of 15 and 30 is 15; HCF of 12 and 18 is 6.)

#### **Summary**

Remind the participants what they have done in this session. Ask if there are any clarifying questions.

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Wrap up 4—4.15pm		

### Session 2 10.30—11.30am

# **Teaching English**



#### **Learning outcomes**

By the end of this session, the participants will:

have reviewed the stages of the 'ladder of writing'

be able to explain the importance of teaching writing according to the stages of the 'ladder of writing'

played a game which gives practice in reading and writing words

participated in a guided writing activity



#### **Materials**

Flip chart or chalkboard, markers

Chart 2: Word bingo

Word bingo picture flash cards

A4 paper (one for each participant) and pencils

Bottle tops (four for each participant)

Chart 3: The ladder of writing

Chart 4: Introducing myself

Chart 5: Teaching guided composition

### Session 2 10.30—11.30am

# **Teaching English**

### activity 01

### **Time** 15 minutes

#### Yauwa!

Explain that in this session they will look at writing activities. They will start with a game of word bingo. Show Chart 2: Word bingo. Give each participant a piece of A4 paper. Ask them to make a bingo card by dividing their paper into four rectangles, and then write a different word from Chart 2 in each rectangle. While they are working, give each participant four bottle tops.

Explain that you will show them pictures one by one. If a picture matches a word on their bingo card, they will cover that word with a bottle top. The first person to cover all their four words calls out 'Yauwa!' Play the game, showing the word bingo picture flash cards one by one. If there is time, ask a volunteer to lead the game.

Ask, 'What does this game practise?' (reading and writing words) Remind the participants that listening comes before speaking, reading before writing, and writing words before writing short sentences.

# activity 02

#### **Time** 20 minutes

#### **Guided writing**

Remind the participants that in Module 9 they looked at teaching writing according to the 'ladder of writing'. Ask, 'What are the stages on the ladder of writing?' Tell them to discuss the question in their groups and to choose a recorder, who will make notes. Give them five minutes for this task.

Bring the whole class together and ask volunteers to say each stage in turn. Then show Chart 3: The ladder of writing.

Ask, 'Why is it important to teach writing according to the stages of the ladder of writing?' (We want pupils to become independent writers. It takes time but happens more easily if the teacher uses the 'ladder of writing' stages.)

•••••

Remind the participants that in Module 9, they did modelled and shared writing activities. Ask, 'What do teachers do in modelled writing?' (Show the pupils that writers: think aloud, stop and start, have a go, make mistakes, change things, read and reread.)

Then ask, 'What shared writing activities can you remember?' (Possible answers are: sharing news, filling in missing words in a sentence, completing a sentence, questions and answers, unscrambling sentences and stories.)

Tell the participants that in this session they will look at the next stage on the ladder of writing: guided writing. Explain that many teachers use only one method of guided writing: having pupils copy a text. Ask, 'Why is copying a text not enough to help pupils in their writing?" (It does not help pupils to learn how to express themselves or become independent writers.) Explain that it is important in guided writing to give pupils both structure and independence.

# activity 03

#### **Time** 15 minutes

#### **Equivalent fractions**

Explain that they will look now at guided composition. Ask, 'What is composition?' (Possible answers are: a piece of writing, putting words together to form a piece of writing.)

Show Chart 4: Introducing myself, and ask the participants to read through it. Tell them that they will write the passage filling in the spaces with information about themselves. Give each participant a piece of A4 paper. Move around the room while they are working, helping where necessary.

When they have finished writing, ask them to exchange their writing with their group members and read what each other wrote. Or they can do a variation. They will shuffle their group's pieces of writing and take one piece. They will then read the piece of writing aloud and the others will guess who wrote it.

Bring the whole class together. Explain that this type of guided composition is called a 'cloze' exercise. A cloze exercise gives pupils a structure and at the same time allows them to write a variety of answers that apply to themselves. Ask:

'What do you like about this activity?'

'What don't you like?'

'Can you use this activity in your lessons?'

.....

'How will it help pupils to learn to be independent writers?'

'What other topics could you do as a cloze exercise?'

Take their ideas. Then show Chart 5: Teaching guided composition and read through it together.

#### **Summary**

Ask the participants to say one important thing that they learned in the session. Ask if there are any clarifying questions.

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Wrap up 4—4.15pm		

### Session 3 12—1pm

### Teaching Social Studies



#### **Learning outcomes**

By the end of this session, the participants will be able to:

define transport and communication

list modern and traditional means of transport and communication

identify the advantages and disadvantages of modern and traditional means of transport and communication



#### **Materials**

Flip chart or chalkboard, markers

Handout 2: Modern and traditional means of transport and communication (one for each participant)

Chart 6: Modern and traditional means of transport and communication

Chart 7: Pictures of transport and communication

Materials 2: Discussion questions (a different question for each group)

Tape

### Session 3 12—1pm

# **Teaching Social Studies**

### activity 01

**Time** 30 minutes

Modern and traditional means of transport and communication

Write 'Transport' and 'Communication' on the flip chart or chalkboard. Ask, 'How can we define "transport"?' 'How can we define "communication"?' Take their ideas and agree on a definition for each word. (Possible answers are: Transport is the movement of people and goods from one place to another. Communication is a means or an act of sending or receiving information.)

Tell them that in this session they will look at modern and traditional means of transport and communication. Write:

•••••

'What means of transport did you use in the last few days?'

'What means of communication have you used in the last 24 hours?'

•••••

Give them a few minutes to discuss the questions in pairs. Then bring the whole class together and ask two or three volunteers to give their answers.

Ask, 'What means of transport and communication did your grandparents use when they were young?' Take ideas from two or three volunteers. Then tell them that they will brainstorm in groups modern and traditional means of transport. Ask them to choose a group leader, who will make sure that everyone participates. Give each participant Handout 2: Modern and traditional means of transport and communication. Give them ten minutes to fill in the handout. Move around the room, helping where necessary.

Bring the whole class together. Show Chart 6:

Modern and traditional means of transport and communication. Tell them to check the list that they made with the list on the chart. Give them a few minutes. Ask, 'Did you write all the ideas that are on the chart?' 'Did you have any ideas that are not on the chart?' Take their ideas and write them on the Chart 6.

# activity 02

### **Time** 30 minutes

Comparing modern and traditional transport and communication

Show Chart 7: Pictures of transport and communication.
Ask, 'Which of these means of transport and communication are usual today?' 'Which are not often used now, or not used at all?' Take their answers.

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Highlight that all means of transport and communication, both modern and traditional, have advantages and disadvantages. Explain that they will now look at the advantages and disadvantages of means of transport and communication.

Divide the participants into four groups. Give each group a different question from Materials 2: Discussion questions, a piece of flip chart paper and markers. Tell them that each group will discuss their question and make a chart of their ideas. Ask them to choose a group leader, who will make sure that everyone participates in the discussion, and a recorder, who will present their ideas to the class. Ask if there are any questions. Give them ten minutes for this task. Move around the room while they are working, helping where necessary.

Bring the whole class together. Tell them to tape their charts on the wall.
Ask each group in turn to present their chart. After each group's presentation, ask for comments and additions from the other groups.

#### Summary

Ask, 'Could you do this lesson with your class?' 'Are there any changes that you would make?' Take their ideas.

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4—4.15pm

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### Session 4 2—3pm

# Teaching Hausa



#### **Learning outcomes**

By the end of this session, the participants will:

be able to explain how to teach oral comprehension (auna fahimta)

have participated in activities in which they create a short story from pictures

be able to demonstrate how to teach pupils to create a short story from pictures



#### **Materials**

Flip chart or chalkboard, markers

Chart 8: Bird picture

A4 paper

### Session 4 2—3pm

# **Teaching Hausa**

# activity 01

**Time** 30 minutes

Creating a short story from a picture

Ask, 'What is "oral comprehension"?' (understanding and interpreting information from listening) Explain these points:

Oral comprehension is part of everyday communication because speaking is the most common form of communicating.

Good oral comprehension helps children to express their thoughts because good listeners become good speakers.

Good oral comprehension is an important prerequisite for reading comprehension. Through oral comprehension, children learn about the structure of different types of texts. For example, stories usually have a problem, a highpoint of action, and a resolution to the problem.

Highlight that we want to use oral comprehension to encourage pupils to listen carefully, to think and to express their understanding. Creating short stories (gajerunlabarai) is one way of facilitating oral comprehension among pupils who have not attended formal schools. They will look at creating stories in this session.

Show Chart 8: Bird picture. Explain that they will create, in groups, a short story based on this picture. They will tell their story to the class, and it should be about two minutes long. Tell them to choose a group leader, who will make sure that evervone contributes, and a recorder, who will write notes or the story in full and tell the story to the class. Tell them to practise telling the story to their group. Give them 15 minutes for this task. Move around the room, helping where necessary.

Bring the whole class together. Ask each group in turn to tell their story to the class. Keep time. When all the groups have presented, ask them to vote for their favourite story.

### Wrapup 3— 4pm

# activity 02

**Time** 30 minutes

**Developing stories** 

Give each group a few pieces of A4 paper and markers. Tell them to draw pictures of people, animals, and household items on different pieces of paper. After five minutes, tell them to arrange the pictures on their tables according to their relationships or uses.

Then explain that they will create in their groups a short story based on the pictures as they arranged them. Ask them to choose a different recorder, who will write notes or the story in full and tell the story to the class. Tell them to practise telling the story to their group. Give them 15 minutes for this task. Move around the room, helping where necessary.

Bring the whole class together. Ask each group in turn to tell their story to the class. Keep time.

#### **Summary**

Ask, 'What did you learn from doing these two activities?' 'Which activity did you prefer?' 'What went well?' 'What needs improvement?'

Briefly summarise the main points of the day's activities. Then ask the participants to do the 'two stars and one wish' activity as a whole class, sharing their comments with you.

Go back to any questions that you have 'parked' during the day and answer them. Allow the participants time to finish off work and prepare materials. Move around the room, giving support where necessary.

Ask a volunteer to lead the class in a closing prayer.





# Training Module 12 Day 3

### **Charts/handouts**

The charts, handouts and other materials needed for each day are illustrated here. You will need to prepare these materials before each of the day's training begins.

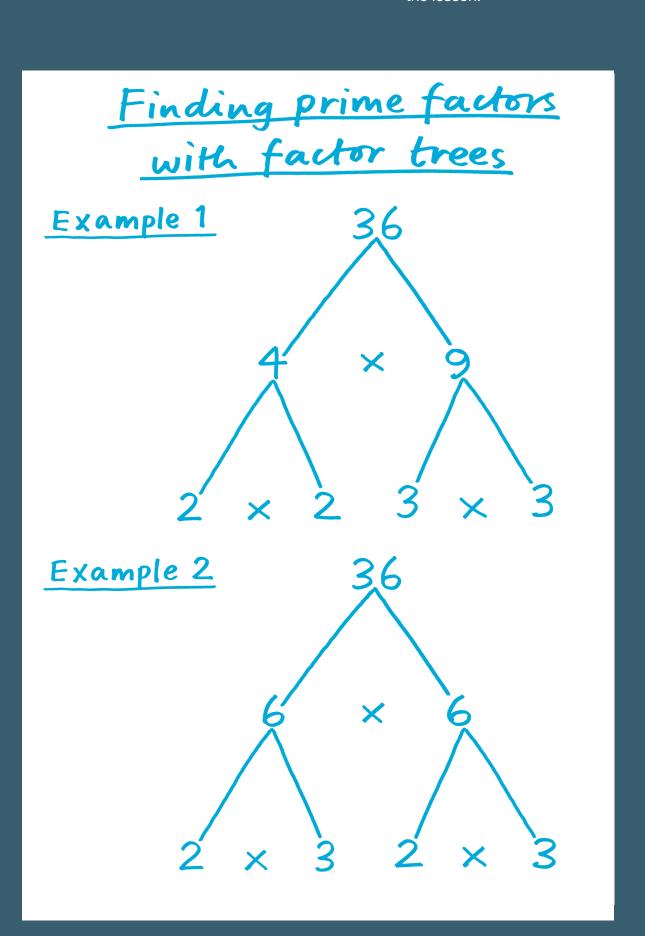
### Module 12 Day 3 Page 25 Chart handout 01 01

### Multiplication table

10	20	30	40	50	60	70	80	90	100
9	18	27	36	45	54	63	72	81	90
8	16	24	32	40	48	56	64	72	80
7	14	21	28	35	42	49	56	63	70
6	12	18	24	30	36	42	48	54	60
5	10	15	20	25	30	35	40	45	50
4	8	12	16	20	24	28	32	36	40
3	6	9	12	15	18	21	24	27	30
2	4	6	8	10	12	14	16	18	20
	2	3	4	5	6	7	8	9	10

#### **Note to facilitators**

The factor trees below are a guide for you to follow as you draw the factor trees step by step during the lesson.



### Word bingo Sun house pencil bus chair motorcycle cup moon book School ball table tree bed baby

### The ladder of writing

Independent writing Guided writing Shared writing Modelled writing

### chart 04

### Introducing myself

My name is \_\_\_\_\_

My hometown is \_\_\_\_\_

The name of my school is

My favourite food is

I am now \_\_\_\_years old



### Teaching guided composition

- Guided composition is the stage before independent composition.
- Guide children with a structure to follow and space for some independent writing.
- Draw on the knowledge and understanding that children have of the world.

### Module 12 Day 3 Page 31 handout 02

### Modern and traditional means of transport and Communication

Traditional means of transport	7	Traditional means of communication	means of

# Module 12 Day 3 Page 32 Chart

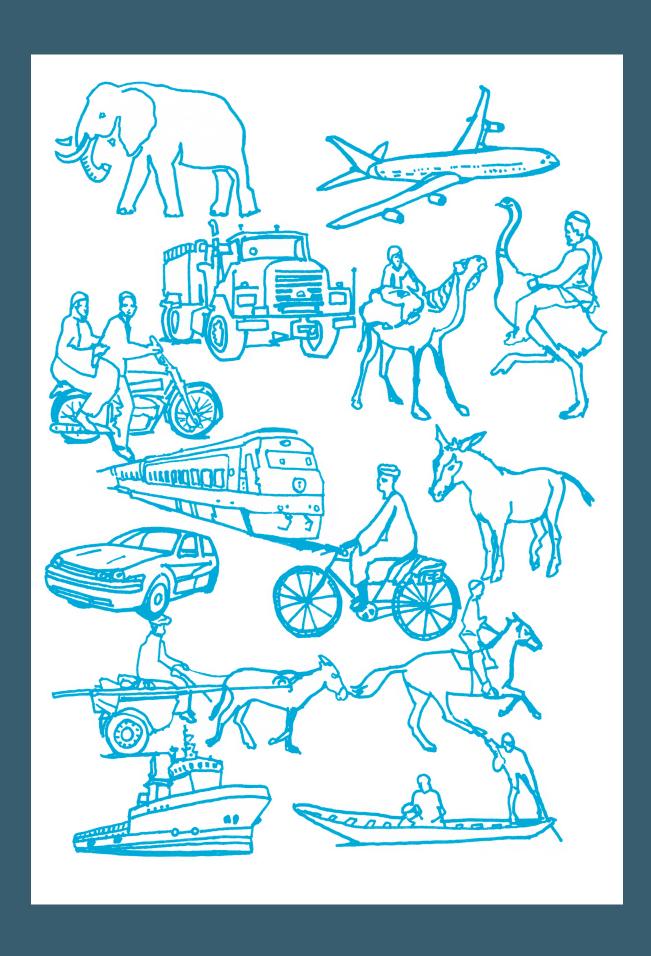
### Modern and traditional means of transport and Communication

Traditional means of transport	Modern means of transport	Traditional means of communication	Modern means of communication
horse donkey Camel Canoe Ostrich Cart elephant	plane car lorry motorcycle boat Ship train bicycle	drums Smoke town crier gun letter messenger birds	telephone radio television email telegram fax

# chart 07

# Pictures of transport and Communication Q

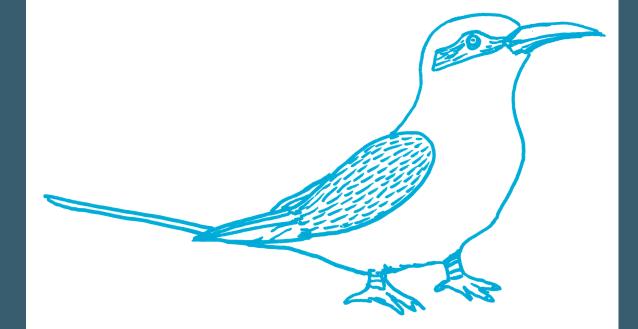
# chart



Discussion questions

- 1) What are the advantages of modern means of transport?
- 2) What are the disadvantages of modern means of transport?
- 3) What are the advantages of modern means of communication?
- 4) What are the disadvantages of modern means of communication?

### Bird picture



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