

IV

THE PROJECT METHOD APPLIED
TO GEOGRAPHY: LESSON PLANS

The data that form the teaching outline of a project is gathered from many and any sources. It is arranged in a logical order to serve the end the teacher wishes, but it is not yet in a form suitable for presentation to a class of children. In order to work it into such a form it is necessary that the material for the developing of each topic be psychologized and be presented as details or particulars from which the induction or generalization is the big point in the outline. The subheads or the sub-sub-heads are the starting point of the recitation. These are facts that the child knows. They are little bits of in-

formation that he already has as his own, or they are so much like some he has that he is ready to accept them. These likenesses must be brought out by comparisons with things he already knows. No lesson plan is complete without enough comparisons to make clear every new point. Neither is it complete until these points are brought together in such relations as will result in a definite, satisfactory generalization. This generalization must be worked into usable, tangible form and mastered for future use.

A few lesson plans may make clear this use of data and show how the units of a project can be worked out for presentation to a class. The project was outlined to cover South America by teaching four great regional units, The Amazon Valley, The La Plata Valley, The Highlands of Brazil, and the Andes Region.

LESSON PLAN

Aim: To teach the location, surface, climate, and drainage of South America.
Reference: *Brigham and McFarlane*.

SUBJECT MATTER

It is south-east of N. America.
Atlantic on the east, Pacific on the west.
Bordering on N. America.
They lie north or south of each other.

South America is east of N. A. or N. A. is west of S. A.

It is narrower by S. A.

The Torrid and S. Temperate.

N. A. is much larger.

9,392,00sq. mi.—N. A.
6,856,000 sq. mi.—S. A.

Mountains in West, Valley through center, Highlands in East. Both have high mountains in west, lower ones in the east, a great valley north and south through the center.

METHOD

We are to learn today the location, surface, climate, and drainage of South America by comparing it with N. A.

Send a pupil to the globe to point out S. A.
Locate S. A. with reference to N. A.

What oceans border S. A.?

Where else have you seen the oceans?

What does this tell you of the relative position of N. A. and S. A.?

Trace a line through the central part of N. A. and follow it on to the south pole. What does this tell you about the relative positions of N. A. and S. A.?

Compare the width of the Atlantic between N. A. and Europe with its width between S. A. and Africa.

Locate the equator as it crosses S. A. In what zones does it lie?

State the location of S. A. clearly.

How do N. A. and S. A. compare in size?

Using the scale of miles, what is the distance of each from N. to S.?

East and West of each?

Look at the table of size of continents and give square miles of each.

This reduces approximately to the relation of 3 to 4.

Show this relative size by graphs on squared paper.

By studying the maps what similarity in surface do you find?

Name the mountain ranges in S. A. which correspond to ones in N. A.

Andes with the Rockies. The Brazilian Highland with the Appalachian.

Very warm in the north, temperate in the south. Much colder on the mountains than in the valleys.

Map p. 222.

Plentiful rainfall over most of both continents. More in northern part of S. A. than anywhere in N. A. Dry places like the Llanos in Venezuela and the Pamos in Brazil like our plains in the N. Central States. Deserts in Chile like ours in Arizona.

The Orinoco and Amazon drain the Northern part into the Atlantic in an eastwardly direction. The Mackenzie, Nelson, and St. Lawrence drain the northern part of N. A. in a northerly direction. The Plata drains the Central part of S. A. as the Mississippi does of N. A.

Using an outline map of S. A. color it to show the surface features.

From the location and surface of S. A. what kind of climate do you expect?

How is the rainfall distributed over S. A.? Compare this with N. A.

How do the river systems of S. A. compare with those of N. A.?

Put into the surface map of S. A. the chief rivers.

The second lesson plan on South America deals with one section or regional unit. It owes its creation to some previous study of the continent and is a type useful for its own worth and as a reference in the study of other instances of this type.

LESSON PLAN

Aim: To teach the size, forests, climate, native people, and animals of the Amazon River Valley.

Reference: *Brigham and McFarlane.*

SUBJECT MATTER

Andes Highland.
Eastwardly.
Atlantic Ocean.
It is very long.

It is 3500 miles long.
Ocean steamers can ascend more than 2000 miles up the river.
There it is 1½ miles wide.

Low level plains like those of Louisiana or Mississippi.
It overflows and make flood plains.
Very fertile.

Luxuriant vegetation and tall trees.

More than 200 different kinds of trees. Largest forest in the world. Rubber, dye-woods, cocoa, vanilla, sarsaparilla, Brazil nut.

Para
Long vines, reeds and rushes, treeferns, and palms.

Like a thick, close, impenetrable forest. There are no roads through the forests because they have to be cut through the forests and there is not enough travel to keep them open.

METHOD

What are the three large rivers that drain S. A.?

Today we shall study about the Amazon in particular.

Find it on the map.

Where does it rise?

In what direction does it flow?

Into what does it empty?

What do you see about the size from the map?

Compare the size with other rivers.

Is it navigable?

Using scale of miles decide upon point where navigation stops.

What is the surface of the country on each side of the river?

What does the river do to this country?

What is the condition of the soil of flood plains?

What do we find growing on the flood plains of the Amazon?

Use pictures to make this comprehensible.

Name some of these trees.

Describe each.

Near the mouth of the Amazon is the city that sells most of the rubber.

What is it?

What besides trees grows here?

How does that make the country look?

Any water course.
The equator.

Very hot, much rain, on account of the intense heat the people have to stay in their shelters during the middle of the day, coming out only in the mornings and evenings.
Equal all the year.

Less because of the heat in the day making it impossible to work.
Easily tired, etc.

Make them stupid, or sick so they cannot work well.

The fish and game that is abundant, but mostly the fruit that grows all around them. Very little clothing and that often made of leaves and the straw they have all around them Thatched huts.
A very low grade of intelligence, almost savage.

Living in a place that requires constant thinking and planning to maintain one's self.
They can live on what nature provides for them just as they find it.

Build in trees. Use large reeds as a kind of stockage. Dig ditches around their huts; etc.

Huge snakes, tappers, alligators, ant-eaters, monkeys, birds of many sorts, including the parrot.
They have no fur.

The heat makes it impossible.
Most live in water.
Water less easily affected by heat and cold than land.

What route is taken by the few travelers?
Go to the map and see what line crosses the Amazon valley.

What have you learned about the climate on and near the equator?

How does the length of day and night compare at the equator?

Do these people have more or less day light to use for work than we?

How do you feel on a very hot day in summer?

If it were much hotter than we have ever known all the time, how would it effect the people?

What do they eat?

What do they wear?

In what kind of houses do they live?

What kind of people do these conditions make?

What increases the intelligence of people?

Why are these lacking in intelligence?

There is one thing they have to provide for themselves.

That is shelter from the animals that live there. How do they do this?

What kind of animals do they have?

How do these animals differ from those of cold climates?

Why?

How are they alike?

Why?

Look at pictures of these animals.

Describe each.

Look at pictures of the natives called Indians.

Assignment: Composition on the Amazon River Valley.

The project for a geography class may be so small as to be encompassed in a single lesson plan. In this case the two are identical. This is not a frequent condition in a well-planned course. Then several plans will be needed to cover a single project. Below is given an outline of a complete project and a plan for one of the three lessons intended to cover the topic.

PROJECT

Why is Europe the only grand division without deserts?

I. Surface

1. Mountains
2. Plains

1, 2, 3.
1, 3, 4.

II. Climate

2. Rainfall
1. Prevailing winds

1, 2, 3, 4.
1, 2, 3, 4.

Conclusion: Europe has no deserts because its mountain system and plains extend from the east to the west. This allows the prevailing westerly winds laden with moisture to blow over Europe.

Assignment: To make a surface map of Europe.

References.

1. *The New International Encyclopedia*, Vol. VIII pp. 278-280.
2. *The Encyclopedia Britannica*, Vol. IX pp. 909-912.
3. *Frye's Higher Geography*, pp. 150-152.
4. *Tarr and McMurray's Advanced Geography*, pp. 275, 280, 281, 276, 277, 279.

LESSON PLAN

Topic: Deserts.

Teacher's Aims: 1. To teach formation of all soil. 2. To interest the children in the animal and vegetable life of the desert. 3. To get information about the desert.

Pupils' Aim: To find out all the interesting facts about deserts.

Outline of Lesson.

A. Formation of soil.

1. Rocks affected by winds, rains, and weathering.
2. Sizes of soil-boulders, rocks, gravel, sand, and clay.

B. Sand Storms.

- C. Oases and palm trees.
- D. Caravan Trade.

SUBJECT MATTER

Foundation of soil.
Winds affect rock
Rain affects rock
Heat affects rock
Streams affect rock
Weathering of rock

Seashore, mountains, gullies, etc.
Deserts.

Pictures.

Sand storm.
Appearance.
What people do.
What animals do.

Life of the vasic:

1. Vegetation
2. Palm trees
3. Use

Caravans:

1. Route
2. Articles of trade
3. Time for trip

People:

1. How they live
2. Their occupation
3. State of civilization

Animals:

1. Tame
2. Wild

PROCEDURE

Bring to class some rocks, sand, gravel, clay.
How are these various grades of soil made?

Which agents produce each grade?

This disintegration of rock is called weathering.

Have you ever seen any rock waste?

Where would you expect to find large quantities of sand?

Show pictures of deserts.

Suggest fiction that deals with desert-descriptions.

Have a child tell of a sand storm from some story or someone's experience.

Show in pictures the sand hills made by storms.

Have one pupil report on life in the desert.

Have another study the caravan; what they bring and take; where they journey, and how long it takes.

Assign for study the life of the people.

Have pupils look up animal life.

Give good reasons for deserts of N. and S. A.
Assignment: Compare conditions in N. A. and S. A. with those in Europe.

ETHEL SPILMAN