

How is wood used in your community? *Students will have individual answers to this question. Brainstorm with your students to identify the many ways that wood is used.*

Name two non-wood products that you have used in the past six months. Were these non-

wood products gathered from a nearby forest? *Students will have individual answers to these questions. You can also have students identify how these non-wood forest products were used. For example, were they used as food, decoration, or for clothing?*

INQUIRY 3: HEALTHY FORESTS NOW AND INTO THE FUTURE

PLANNING FOR HEALTHY FORESTS

TIME NEEDED

One class period

MATERIALS

(for each student or group of students)

- World's Forests Third Edition
- Blank paper
- Writing utensil
- Graphic Organizer for Inquiry 3: Planning For Healthy Forests

METHODS

Have students read the first two paragraphs on pages 52 and 53 and examine Figures 76 and 77. Ensure that they understand that people take action to manage forests so that desired benefits are realized. Have students name some of the forest benefits they learned about in Inquiry 2.

Have students read about the definition of “sustainable” and sustainable forest management. Have students examine Figure 78 and ask them to explain how the photograph demonstrates sustainable forest management.

Have students read the text on page 53. As they read the last paragraph, emphasize that people take actions, called sustainable forest management. These actions are taken so that forests provide desired benefits such as forest products and environmental protection today and into the future.

Have students discuss forest management plans. Ensure that they understand that a forest

management plan is a written document that describes what forest managers will do to gain forest benefits. Have students discuss whether and why having a forest management plan is a good idea.

Have students examine Figure 79. Ask them to describe the pattern shown in the graph.

Have students examine Figures 80 and 81. As students did with previous figures, have them rank order the values by continent, then write the continent names in order from most to least in the Graphic Organizer for Inquiry 3: Planning For Healthy Forests (page 87). Have students circle the name of their continent for each figure on the graphic organizer.

Optional: Have students read the text on page 54 that defines a forest management plan. Remind them that a forest management plan identifies actions to be taken.

Discuss the Reflection Section questions as a class or in small groups:

Describe in your own words what “sustainable” means. *Students will have individual answers to this question. Sustainable means that something is used in such a way so the benefits it provides continue into the future.*

Do you think having a forest management plan is a good idea? Why or why not? *Students will have individual answers to these questions. They*

should, however, conclude that having a forest management plan is a good idea because through such a plan, specific benefits are identified and then actions are taken to achieve those benefits.

INQUIRY 3: HEALTHY FORESTS NOW AND INTO THE FUTURE

PUTTING FOREST MANAGEMENT TO THE TEST!

TIME NEEDED

One class period

MATERIALS

(for each student or group of students)

- World's Forests Third Edition
- Blank paper
- Writing utensil
- Graphic Organizer for Inquiry 3: Putting Forest Management to the Test

METHODS

Have students read the first two paragraphs on page 55. Ensure that they understand what is meant by forest certification.

Have students read the third paragraph that introduces monitoring. Ensure that they understand that monitoring is done to certify that forests are being managed according to a sustainable management plan.

Have students read the next two paragraphs. Ensure that they understand that forest monitoring and certification are meant to protect the rights of people and to protect the forest environment. Discuss, if appropriate, any indigenous peoples who live or work in a nearby forest or a forest on the students' continent.

Have students examine Figure 82. Ask students what pattern is shown by this graph. Ask students whether, and why, they think this pattern is positive or negative.

Have students examine Table 2 and Figure 83. As they did with previous figures, have students rank order the values by continent, then write the continent names in order from most to least in the Graphic Organizer for Inquiry 3: Putting Forest Management to the Test (page 88). Have

them circle the name of their continent for each figure in the graphic organizer.

Have students read the first paragraph on page 56 about the number of forested hectares worldwide under forest certification programs. They may want to review the map of the world's ecozones (see Figure 12).

Have students read the second paragraph on page 56 and discuss the role of tests and schoolwork as a way to monitor their own school progress. Compare and contrast student schoolwork and tests with forest monitoring and certification.

Have students read the third paragraph on page 56. Hold a class discussion about the journal they are reading. Discuss whether the journal might be considered an international report about how the world's forests are progressing toward sustainable forest management. Discuss why or why not this journal would be considered such a report. Discuss whether the FAO report, on which this journal is based, is such a report.

At this point, you can tell students that they will be doing their own analysis to determine how well their own continent is progressing toward sustainable forest management.

Optional: Students may read the sidebar on page 56 about the Forest Service's Forest Inventory and Analysis Program.

Discuss the Reflection Section questions as a class or in small groups:

Everyone benefits when foresters use a forest management plan to guide them. Name a time

when having a plan provided a benefit to you. What was your plan, and how did you benefit from having a plan? *Students will have individual answers to this question. They could have used a plan to study for a test or to accomplish some other goal that was important to them.*

Observe Figure 82. Do you think the number of forested hectares under forest certification will increase or decrease in the future? Why?

Students will have individual answers to these questions. They should notice the trend in the chart showing an increase in the number of hectares under forest management certification over time.

Observe Figure 84. What is similar about the four countries that used FIA's 15-step program for forest monitoring? All of these countries are in the tropical ecozone.

WORLD'S FORESTS THIRD EDITION SUMMARY

TIME NEEDED

One class period

MATERIALS

(for each student or group of students)

- World's Forests Third Edition
- Blank paper
- Writing utensil
- Graphic Organizer: Summary

METHODS

Have students read the summary on page 59. Their next step will be to review their graphic organizers, as well as the Graphic Organizer:

Summary (pages 89 to 91). In small groups, have students review all of the information they have gathered about their continent in comparison with other continents. This information, along with the trend information in the Graphic Organizer: Summary, should give them enough information to evaluate their continent's progress toward sustainable forest management.

Have student groups present their results to the class and give reasons for the conclusions they have drawn.

GRAPHIC ORGANIZER FOR INQUIRY 3

HEALTHY FORESTS NOW AND INTO THE FUTURE

PLANNING FOR HEALTHY FORESTS

Rank order your continent by writing the continents' names in order from most to least. Circle your continent's name in each column.

	Fig. 80 – Forests Under a Management Plan (millions ha)	Fig. 81 – Forests Under a Management Plan (% TFA)
Continents in Rank Order from Most to Least		

ha = hectare; TFA = total forest area.

GRAPHIC ORGANIZER FOR INQUIRY 3
HEALTHY FORESTS NOW AND INTO THE FUTURE
PUTTING FOREST MANAGEMENT TO THE TEST!

Rank order your continent by writing the continents' names in order from most to least. Circle your continent's name in each column.

Continents in Rank Order from Most to Least	Table 2 – Forests Under Certification Program (millions ha)	Fig. 83 – Forests Under Certification Program (% TFA)	

ha = hectare; TFA = total forest area.

GRAPHIC ORGANIZER

SUMMARY

Ranking of the _____ continent as it compares with other continents worldwide.

Check the correct ranking in each column for each figure or table that corresponds to the ranking you identified for your continent on the previous pages of this graphic organizer. For example, if your continent was ranked #2 in Figure 17, Forest Area (in millions of hectares), check the column labeled “2” in the row marked “Fig. 17, Forest Area (millions ha).”

Ranking	1	2	3	4	5	6
Fig. 17 – Forest Area (millions ha)						
Fig. 19 – Natural Forest (% TFA)						
Fig. 19 – Planted Forest (% TFA)						
Fig. 20 – Net Annual Forest Change (millions ha)						
Fig. 25 – Natural Forest Change (thousands ha)						
Fig. 26 – Planted Forest Change (thousands ha)						
Fig. 27 – Per Capita Change (ha)						
Fig. 38 – Primary Forest (millions ha)						
Fig. 39 – Primary Forest (% TFA)						
Fig. 41 – Biodiversity (millions ha)						
Fig. 42 – Biodiversity (% TFA)						
Fig. 43 – Protected Areas (millions ha)						
Fig. 44 – Protected Areas (% TFA)						
Fig. 47 – Carbon Storage (Gt)						
Fig. 48 – Carbon Storage (average Gt per ha)						
Fig. 54 – Ecosystem Services, Cultural and Spiritual (millions ha)						
Fig. 55 – Ecosystem Services, Cultural and Spiritual (% TFA)						
Fig. 60 – Soil and Water Protection (millions ha)						
Fig. 61 – Soil and Water Protection (% TFA)						
Fig. 80 – Forests Under a Management Plan (millions ha)						
Fig. 81 – Forests Under a Management Plan (% TFA)						
Table 2 – Forests Under Certification Program (millions ha)						
Fig. 83 – Forests Under Certification Program (% TFA)						

Gt = gigatonne; ha = hectare; TFA = total forest area.

With this summary ranking of your continent on these variables, you can more easily assess the progress your continent is making toward sustainable forest management.

Note that not all continents have the same amount of land area or forest area. A better comparison, therefore, may be to look closely at the percentages rather than the total number of hectares. For example, look at the ranking for Figures 41 and 42 in the graphic organizer above. The ranking for Figure 42 may be the better measure of how well your continent is doing compared with other continents. Why might using percentages be a better measure than using the total number of hectares?

REFLECTION SECTION

In which areas do you believe your continent is doing well in progressing toward sustainable forest management?

In which areas do you believe your continent needs to focus to improve its progress toward sustainable forest management?

Compared with continents worldwide, how well is your continent doing to conserve biodiversity in your forests?

Compared with continents worldwide, how well is your continent doing to conserve ecosystem services and spiritual and cultural values in your forests?

Compared with continents worldwide, how well is your continent doing to manage your forests under a forest management plan?

Compared with continents worldwide, how well is your continent doing to certify the sustainability of the continent's forest management?

What else have you learned about your continent's forests in comparison with the world's other continents?

Overall, how do you think we are doing worldwide to manage our forests sustainably?
