Section 13–1: Growth and Development from Four to Six

1. How does the physical growth rate of children ages four to six compare to that of children ages one to three?

2. About how much height and weight do children gain per year from ages four to six?

3. Describe three ways a child’s body shape and posture change from age four through age six.

4. Which permanent teeth appear first? What is their role in the arrangement of teeth in the mouth?

5. In what order are primary teeth lost?
6. Five-year-old Tyler sucks his thumb a lot. His parents are concerned. What should they do and why?

Possible response: They should take Tyler to a dentist to see if the thumb-sucking is causing changes in the shape of the roof of the mouth or in the way the teeth line up. If it isn’t, it is normal, and Tyler will probably outgrow it.

7. For each skill listed in the chart below, indicate whether it is a fine or gross motor skill. Identify the age—four, five, or six—when a child typically learns it.

<table>
<thead>
<tr>
<th>Motor Skill</th>
<th>Fine or Gross?</th>
<th>Approximate Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writes entire words</td>
<td>Fine</td>
<td>Six</td>
</tr>
<tr>
<td>Skips, alternating feet</td>
<td>Gross</td>
<td>Five</td>
</tr>
<tr>
<td>Walks backward easily</td>
<td>Gross</td>
<td>Four</td>
</tr>
<tr>
<td>Cuts on line with scissors</td>
<td>Fine</td>
<td>Four</td>
</tr>
<tr>
<td>Buttons clothing</td>
<td>Fine</td>
<td>Five</td>
</tr>
<tr>
<td>Throws ball overhand</td>
<td>Gross</td>
<td>Four</td>
</tr>
<tr>
<td>Hops on one foot</td>
<td>Gross</td>
<td>Four</td>
</tr>
<tr>
<td>Draws a person with head, body, arms, and legs</td>
<td>Fine</td>
<td>Five</td>
</tr>
<tr>
<td>Dresses and undresses self</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jumps rope</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses spoon and fork, but also uses fingers for some foods</td>
<td>Fine</td>
<td>Five</td>
</tr>
</tbody>
</table>

8. When are most children able to tie their shoes? Age six.

9. What are ambidextrous children able to do? Use both hands with equal skill.

Section 13–2: Caring for Children from Four to Six

10. Some children in this age group require more food than others. What accounts for this difference?

11. How often should children ages four to six eat? Five or six small, nutritious meals and snacks per day.

(Continued on next page)
12. “I hate peas,” declared six-year-old Alexis. “If you eat all your peas, you can stay up an extra half-hour tonight,” her mother responded. Is the mother’s response likely to encourage good eating habits? Explain your answer.

[No. Forcing a child to eat, making an issue of eating certain foods, and using food as a reward can all lead to poor eating habits and weight issues.]

13. How can parents model good eating habits? 

[By eating nutritiously themselves.]

14. How can television viewing negatively influence a child’s nutrition and physical health?

[Commercials can influence children to choose high-fat and high-sugar foods and drinks instead of more nutritional choices. TV watching cuts down on time spent in physical activity.]

15. Name three ways that children can be involved in obtaining and preparing food.

[Answers will vary.]

16. Why is it important the foods included in packed lunches are appealing, as well as nutritious?

[Children often trade foods and throw food away. They are less likely to do so if their packed lunch contains foods they like.]

17. Why are convenience foods and foods from fast-food restaurants often poor nutritional choices?

[Often they are high in calories, salt, and fats.]

18. What are three ways that poor nutrition can affect children’s health and development?

[1. Less resistance to illnesses. 2. May not grow properly. 3. May have learning problems. 4. May lead to weight problems.]

19. If a four- to six-year-old appears overweight, who can help determine if there is a problem? Who can help with meal planning if there is one?

[The child’s doctor should be consulted before beginning a diet. Dietitians and nutritionists help with meal planning.]
20. When a child consumes more calories than the body uses through physical activity, what happens to the extra calories?

[The extra calories are stored as fat.]

21. When parents are trying to help their children be physically active, why is it important to choose activities that are age appropriate?

[Activities that are too challenging can discourage participation. Some activities aren’t suitable for children.]

22. What are two techniques that can be used to encourage four- to six-year-olds to bathe regularly?

[(1) Praise children for bathing rather than nagging them to do it. (2) Maintain regular hygiene routines.]

23. At about what age are children able to handle a toothbrush well enough to brush without help?

[Five]

24. Why is it important for children to use a toothpaste that contains fluoride?

[It strengthens enamel of teeth and helps prevent decay.]

25. Cassandra never fusses about her clothing, but since her sixth birthday, she has refused to wear certain outfits. What might have caused this change?

[Probably group identification. By this age, children begin to want to wear clothes similar to those of their peers.]

26. At bedtime, six-year-old Garrett throws his clothes on the floor of his room. His mother puts them in the laundry hamper because it seems easier than constantly reminding Garrett to do it. Evaluate this mother’s response to this problem.

[Possible answer: At this age, children need to learn independence and responsibility. She should gently remind Garrett to put away his clothes or put them in the hamper. Otherwise, he may continue to expect this service as a teen.]

27. How much sleep do most four- to six-year-olds need each night?

[Ten to twelve hours.]
28. How do four- to six-year-olds typically react to bedtime?

[Generally cooperative about going to bed, but may use delaying tactics. After their bedtime routine, most go to sleep easily.]

29. Identify four ways that parents should respond to bed wetting.

[(1) Treat accidents casually without shaming. (2) Do not blame the child. (3) Reduce the amount of fluid the child takes in before bed. (4) Provide support and reassurance that the child will outgrow it.]

30. Beth’s son Luis just turned four. When they arrive at his friend’s birthday party at a recreation center, she makes sure he knows where the bathroom is. What else could Beth do to help prevent a toileting accident?

[Beth should have Luis use the bathroom before leaving home.]
Growth and Development
from Four to Six

Describing Growth and Development

Directions: Dr. Janna Pavlev, a pediatrician and author, is giving an illustrated lecture to parents about the growth and development of preschoolers. You are Dr. Pavlev’s assistant. Listed below are descriptions of some of the slides that Dr. Pavlev will show during her talk. In the lines below each description, write some notes that Dr. Pavlev can use as the basis for her talk.

1. Slide: A group of preschoolers standing together in a class photo. Children are of different heights and weights.

2. Slide: Six-year-old boy standing next to two-year-old boy at backyard pool; both are in swimsuits so body shapes are evident.

3. Slide: Six-year-old girl smiling at camera missing two lower front teeth.

4. Slide: Children aged four to six running in park or playground.

Possible responses:

- Average height and weight is only a rough guide; children can be taller or shorter, lighter or heavier, and still be growing normally.
- Body shape and posture change considerably in preschoolers—Protruding tummies flatten; posture is straighter with shoulders back; rounded chests broaden and flatten; legs and necks lengthen.
- Permanent teeth begin to emerge at about age six. Front primary teeth are lost first. Molars are the first permanent teeth to appear. Good dental hygiene is very important.
- Gross and fine motor skills improve greatly from ages four to six. Skill development varies across individuals. Children need plenty of opportunities for physical activities, such as running, jumping, and climbing.
**Caring for Children from Four to Six**

**Using Nutrition Labels**

**Directions:** When selecting a cereal, reading the fine print can help because all packaged foods are required by law to have a panel listing nutrition facts. Each contains information about serving size, calories, fat content, nutrients, and vitamins. One column shows the “% daily value.” That figure tells how much of an adult’s dietary needs are met by one serving of the product. In Cereal A below, for example, one serving provides 25% of the daily need for vitamin C. Study both labels and answer the questions that follow.

1. How big is a serving?
   - Cereal A ____________  Cereal B ____________

2. What size serving would you estimate a four- to six-year-old might eat?
   - [Possible answer: 1/2 cup]

3. How many servings are in a box?
   - Cereal A _______  Cereal B _______

4. How many calories are in each serving, both plain and with milk?
   - Cereal A plain _______  Cereal B plain _______
   - Cereal A with milk _______  Cereal B with milk _______

5. What are the four main ingredients (the first four listed) in each cereal?
   - Cereal A __________________________
   - Cereal B __________________________

6. Which cereal contains more fiber?
   - [Cereal B]

7. Which cereal provides more vitamin A? More iron?
   - Vitamin A __________________________
   - Iron ________________________________

8. Does the vitamin C come from the cereal itself or from the milk?
   - [Cereal]

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**Cereal A Nutrition Facts**

<table>
<thead>
<tr>
<th>Serving Size</th>
<th>Calories</th>
<th>Fat Calories</th>
<th>% Daily Value**</th>
</tr>
</thead>
</table>
| 3/4 Cup (31g/1.1 oz) | 120 | 12 | 0% 12%
| Cereal with 1/2 Cup Skim Milk | 160 | 0 | 0% 0%

<table>
<thead>
<tr>
<th>Amount Per Serving</th>
<th>Cereal with 1/2 Cup Skim Milk</th>
<th>Vitamins A &amp; D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories</td>
<td>120</td>
<td>160</td>
</tr>
<tr>
<td>Fat Calories</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>% Daily Value**</td>
<td>0% 12%</td>
<td>0% 0%</td>
</tr>
</tbody>
</table>

| Total Fat 0g* | 0% 0% |
| Saturated Fat 0g | 0% 0% |
| Trans Fat 0g | 0% 0% |
| Polyunsaturated Fat 0g | 0% 0% |
| Monounsaturated Fat 0g | 0% 0% |
| Cholesterol 0mg | 0% 0% |
| Sodium 210mg | 9% 11% |
| Potassium 20mg | 1% 2% |
| Total Carbohydrate 28g | 9% 11% |
| Dietary Fiber 0g | 0% 0% |
| Sugars 13g | 1% 1% |
| Other Carbohydrate 15g | 1% 1% |
| Protein 1g | 1% 1% |

| Vitamin A | 15% 8% |
| Vitamin C | 25% 25% |
| Calcium | 0% 1% |
| Iron | 10% 10% |
| Vitamin B | 10% 10% |
| Thiamin | 25% 30% |
| Riboflavin | 25% 35% |
| Niacin | 25% 25% |
| Vitamin B6 | 25% 25% |
| Folic Acid | 25% 25% |

*Amount in cereal. One half cup skim milk contributes an additional 40 calories, 65mg sodium, 6g total carbohydrate (6g sugars), and 4g protein.

**Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs. Calories 2,000 2,500

Total Fat Less than 65g 80g
Sat. Fat Less than 20g 25g
Cholesterol Less than 300mg 300mg
Sodium Less than 2,400mg 2,400mg
Potassium 3,500mg 3,500mg
Total Carbohydrate 300mg 375g
Dietary Fiber 25g 30g
Calories per gram:
Fat 9 • Carbohydrate 4 • Protein 4

Ingredients: Corn, sugar, salt, malt flavoring, corn syrup.
Vitamins and Iron: ascorbic acid, vitamin C, niacinamide, iron, pyridoxine hydrochloride (vitamin B6) riboflavin (vitamin B2), vitamin A palmitate (protected with BHT), thiamin hydrochloride (vitamin B1), folic acid, and vitamin D.

(Continued on next page)
9. If a child liked to eat dry cereal as a snack, which column would you look at for nutrition information? Why is more nutritious to eat cereal with milk?

The first column for cereal only (without the ½ cup of milk). The milk provides more vitamins.

10. Some sweetened cereals contain 6g of sugar per serving. A serving of unsweetened cereal may contain about 3g of sugar. How much sugar does Cereal A contain? Cereal B? Would you classify them as sugary cereals?

Cereal A: 13g  Cereal B: 12g

Possible answer: Yes, they are sugary.

11. If these cereals were available as packaged breakfast bars, predict ways in which the nutrition information might change.

Possible answer: More sugar might be added to make them taste more like a candy bar. There would be more fat to hold the cereal together.

12. How might parents add even more nutrition to their five-year-old's morning cereal?

Possible answer: Add fruit such as sliced bananas or strawberries.

13. Would you serve either cereal to a child aged four to six? Why or why not?

Students should be able to support the judgment they make with specific information from the labels. Some students may believe that the vitamins provided in either cereal make up for the high sugar content. Others may judge the sugar content in both to be unacceptable.

Cereal B

| Nutrition Facts                  |  |  
|----------------------------------|---|---
| **Serving Size** 1/4 Cup (30g)   |  |  
| **Servings per Container** 14    |  |  
| **Amount Per Serving**  |  |  
| Calories  | 120 | 160  
| Calories from Fat  | 25 | 25  
| **With 1/2 Cup Skim Milk**  |  |  
| Calories  | 120 | 160  
| Calories from Fat  | 25 | 25  
| % Daily Value**  |  |  
| Total Fat  | 2.5g*  | 4%  
| Saturated Fat  | 0g  | 0%  
| Trans Fat  | 0g  | 0%  
| Cholesterol  | 0mg  | 0%  
| Sodium  | 180mg  | 8%  
| Potassium  | 70mg  | 2%  
| Total Carbohydrate  | 24g  | 8%  
| Dietary Fiber  | 1g  | 6%  
| Sugars  | 12g  | 6%  
| Other Carbohydrate  | 11g  |  
| **Protein**  | 2g  |  
| **Vitamin A**  | 25%  | 30%  
| **Vitamin C**  | 25%  | 25%  
| **Calcium**  | 4%  | 15%  
| **Iron**  | 25%  | 25%  
| **Vitamin D**  | 10%  | 25%  
| **Thiamin**  | 25%  | 30%  
| **Riboflavin**  | 25%  | 35%  
| **Niacin**  | 25%  | 25%  
| **Vitamin B6**  | 25%  | 25%  
| **Folic Acid**  | 25%  | 25%  
| **Phosphorus**  | 8%  | 20%  
| **Magnesium**  | 4%  | 8%  
| **Zinc**  | 2%  | 6%  
| **Copper**  | 2%  | 2%  
| **Copper**  |  |  
| **Amount in cereal. A serving of cereal plus milk provides 0.5g saturated fat, <5mg cholesterol, 240mg sodium, 270mg potassium, 30g carbohydrate (18g sugar) and 6g protein.**  |  |  
| **Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:**  |  |  
| Calories  | 2,000  | 2,500  
| Total Fat  | Less than  | 65g  | 80g  
| Sat. Fat  | Less than  | 20g  | 25g  
| Cholesterol  | Less than  | 300mg  | 300mg  
| Sodium  | Less than  | 2,400mg  | 2,400mg  
| Potassium  | 3,500mg  | 3,500mg  
| Total Carbohydrate  | 300mg  | 375g  
| Dietary Fiber  | 25g  |  
| Sugars  | 12g  | 6%  
| Other Carbohydrate  | 11g  |  
| Protein  | 2g  |  
| Calories per gram: Fat 9, Carbohydrate 4, Protein 4  |  |  
| INGREDIENTS: WHOLE OAT FLOUR (INCLUDES THE OAT BRAN), SUGAR, CORN SYRUP, DRIED APPLE PIECES, PARTIALLY HYDROGENATED SOYBEAN OIL, WHEAT STARCH, SALT, CINNAMON, CALCIUM CARBONATE, TRISODIUM PHOSPHATE, COLOR AND PRESERVATION PRESERVED BY SODIUM SULFITE, SULFUR DIOXIDE AND BHT.  |  |  
| VITAMINS AND MINERALS: VITAMIN C (SODIUM ASCORBATE), A B VITAMIN (NIACIN), IRON (A MINERAL NUTRIENT), VITAMIN A (PALMATE), VITAMIN B6 (PYRIDOXINE HYDROCHLORIDE), VITAMIN B3 (NIACIN), VITAMIN B1 (THIAMIN MONONITRATE), A B VITAMIN (FOLIC ACID) AND VITAMIN D.  |  |  

The Developing Child: Homework Activities

114