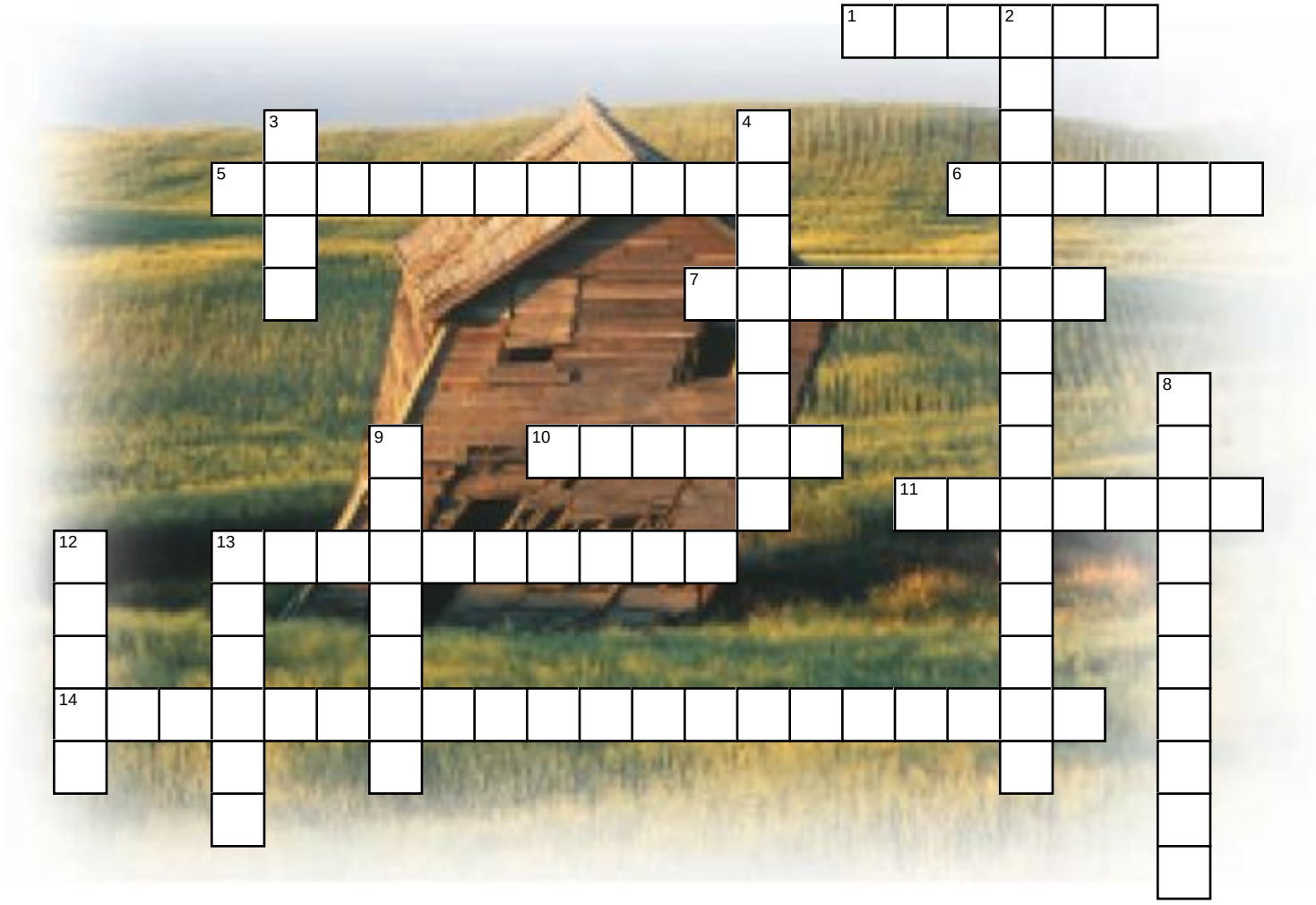
5.1 Stabilizing Structures

Pearson Education
www.sciencesource.ca



Across

1. Unbalanced _____ can cause stress and fatigue in structures.
5. Three dimensional triangular prisms and pyramid shapes are stronger than three dimensional _____ prisms.
6. You might have seen a bookcase shelf that sags in the middle. The sag indicates that the structure is under _____.
7. A structure is stable if the forces acting on it are _____.
10. When the flaws in a new product are serious, manufacturers use a product _____.
11. _____, or box beams, are long beams in the shape of hollow rectangular prisms.
13. A _____ is a beam that is supported only at one end.
14. Arches, beams and columns are used over and over again in building design because these _____ _____ can add strength.

Down

2. Can you balance a ruler on one finger? The only point at which this could happen is the exact middle of the ruler. This point is called the _____ __ _____.
3. A _____ is a flat structure that is supported at each end.
4. The _____ is a very strong shape and it is found in many structures.
8. When a sheet of metal or cardboard is shaped into a series of pleats or triangles it is called _____ metal or cardboard.
9. The old house in this background photograph indicates structural _____. However, it may take several more wind storms before it fails completely.
12. A _____ is a framework of beams joined together. It is usually in the form of interlocking triangles.
13. A _____ is a solid structure that can stand by itself.