Agile Principles:

1. **Customer Satisfaction:**
   - Highest priority is to deliver valuable software to customers.
   - Continuously deliver valuable software early and often.

2. **Embrace Change:**
   - Welcome changing requirements, even late in development.
   - Harness customer feedback for product improvement.

3. **Incremental Delivery:**
   - Break projects into small, manageable increments.
   - Deliver working software frequently, from a couple of weeks to a couple of months.

4. **Collaboration:**
   - Business stakeholders and developers must work together daily throughout the project.
   - Build projects around motivated individuals, providing them with the environment and support they need.

5. **Sustainable Development:**
   - Promote sustainable development with a consistent pace.
   - Agile processes promote continuous attention to technical excellence and good design.

6. **Face-to-Face Communication:**
   - The most efficient and effective method of conveying information is face-to-face conversation.

7. **Working Software:**
   - Working software is the primary measure of progress.

8. **Technical Excellence:**
   - Continuous attention to technical excellence and good design enhances agility.

9. **Simplicity:**

- Maximize the amount of work not done - simplicity is essential.

10. **Self-Organizing Teams:**
   - The best architectures, requirements, and designs emerge from self-organizing teams.

11. **Reflection and Adjustment:**
   - Regularly reflect on how to become more effective and adjust behavior accordingly.

Scrum Framework:

1. **Roles:**
  - **Product Owner:**
    - Defines the features of the product.
    - Prioritizes the product backlog.
    - Adjusts features and priority every iteration, as needed.

  - **Scrum Master:**
    - Ensures the team follows agile practices.
    - Removes impediments.
    - Shields the team from external interference.

  - **Development Team:**
    - Cross-functional group that is responsible for delivering the product increment.
    - Typically consists of 5-9 members.

2. **Events:**
  - **Sprint:**
    - Time-boxed iteration, typically 2-4 weeks.
    - Goal is to produce a shippable product increment.

  - **Sprint Planning:**
    - Team collaborates to plan the work to be done in the sprint.
    - Involves defining the sprint goal and selecting backlog items.

- **Daily Scrum:**
  - 15-minute daily meeting for the team to synchronize activities and plan for the next 24 hours.

- **Sprint Review:**
  - Held at the end of the sprint to inspect the increment and adapt the product backlog if needed.
  - Includes stakeholders and provides feedback.

- **Sprint Retrospective:**
  - Team reflects on the past sprint.
  - Discusses what went well, what could be improved, and how to make adjustments.

3. **Artifacts:**
  - **Product Backlog:**
    - Ordered list of all desired work on the project.
    - Continuously evolving and prioritized by the product owner.

  - **Sprint Backlog:**
    - Set of product backlog items selected for the sprint, plus a plan for delivering the product increment.

  - **Increment:**
    - Sum of all the product backlog items completed during a sprint and all previous sprints.
    - Must be in a usable condition regardless of whether the product owner decides to release it.

Key Scrum Concepts:

1. **Definition of Done:**
  - A shared understanding within the scrum Team of what it means for work to be complete.
  - Ensures transparency and consistency.

2. **User Stories:**

   — Simple descriptions of a feature told from the perspective of the person who desires the new capability.

   — Format: "As a [type of user], I want [an action] so that [a benefit/a value]."

3. **Velocity:**

   — Measure of the amount of work a team can tackle during a single sprint.

   — Helps in predicting how much work the team can complete in future sprints.

4. **Burndown Chart:**

   — Visual representation of the remaining work versus time.

   — Helps in tracking the progress of the sprint.