#### Training-program-girls-jan23

#### **Peer Learning**

## Learning Buddy Guidelines-Protocol:

5/2/2022



Background:	Pairing two team mates to study together
	allows each other to have someone to help
(Pair Share)	you when you get stumped on a particular
	item and too reenforce you're thinking about
	what is being said.
Getting to	Discuss your
know my	Similarities
buddy	Differences
Do I need	NO just your wiliness to work kindly with your
special tools?	learning buddy.
<b>Guidelines for</b>	1. Talk to each other (not to the teacher!)
Discussion:	2. Refer to evidence from the text to support
	your answers
	3. Ask questions if you do not understand
	what someone has said, or paraphrase
	what another student has said for
	clarification ("I think you said this, is that
	right?").
	4. No need to raise hands to speak
	5. Don't interrupt, put down, or make fun of
	another student

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Look for	With your learning buddy, answer the
questions	questions on the web page and discuss your
	thoughts. Use the follow five areas to develop
	your own questions: engage, explore, explain,
	extend, and evaluate
Material being	The material should be laid out on the web
studied	page and explain what needs to be learned or
	viewed. Look to find what outcome is expected
	from you and then follow the page direction.
What is my	Look over the web page to see if there is
outcome?	written down outcomes. IF NOT, together
	write a list of what you think the outcomes are
	and follow them.
How do we	Practice good teamwork like making a list of
work	items to work on and looking to support your
together?	teammate. This is to help both of you learning
	the material and feel good about helping each
	other.
How do we	Do more listening with understanding of their
deal with dis-	point of view. Don't try to solve it at the first
agreements?	time it comes up.
Review at the	With your learning buddy, review what you
end	learned and the outcomes you found. How will
	you use this going forward for your goals at
	the end of the class?

The method I use where the students own their learning and do active projects to be part of the learning process.



#### Framingham Explorers Project (FEP)

Students' academic journeys are organized around "learning expeditions"—interdisciplinary explorations of real-world issues in which students work directly with community experts. Where students have ownership in—and responsibility for—how they learn. Where learning is based on each student's needs.

Students will partner with community-based youth agencies and service centers to provide disconnected youth—including teenagers who are homeless or in foster care—with an education designed to meet their needs and prepare them for success in college and careers.

Where the community is the classroom with a project-based curriculum that allows students to learn in ways and places that work best for them. Students create their own learning pathways and progress at a flexible pace by demonstrating mastery at every step.

#### Our Uniqueness:

- 1. Use of Peer Learning and creating life-long learning skills
- 2. Mind-set learning; Ownership, Brain Plasticity, Engineering, and Teamwork.
- 3. Incorporate Life-skills & Work foundational skills into the program.
- 4. Focus on yourself and creating your Branding statement.
- 5. Transform your outlook to creating a learning environment



One of the best ways to understand something is by taking it apart and examining how its pieces fit together. What are the key elements? How do they interact? What makes it all work? Here are ways to help us deconstruct new information.

**Nick Velasquez** 

Learn, Improve, Master: How to Develop Any Skill and Excel at It

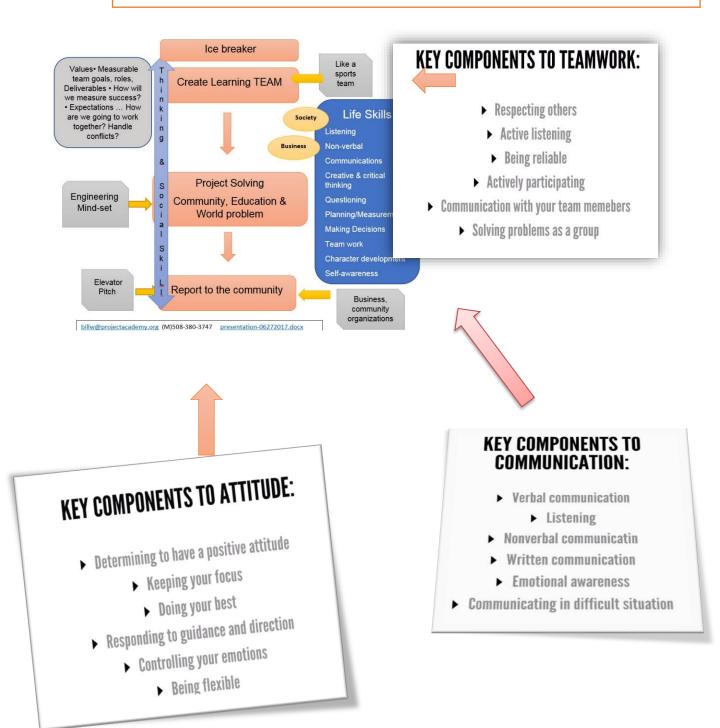
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# Life-skills / Soft skills = Attributes that enable interaction between people in Business/ Society/ Education



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## **KEY COMPONENTS TO SOCIAL** SKILLS:

- Interpersonal skills
- Controlling your emotions
  - Socializing at work
    - Networking
  - Responding to conflict
    - Helping customers

### **KEY COMPONENTS TO CRITICAL** THINKING:

- Gathering information
- Analyzing information
- Applying information
- Forming a hypothesis
  - Decision making
  - Problem solving

#### **KEY COMPONENTS TO KEY COMPONENTS TO PLANNING PROFESSIONALISM:** AND ORGANIZING: Knowledge of workplace expectations Prioritizing Personal responsibility Time management Workplace ethics Coordinating resources Physical appearance Delegating Using proper language Creating systems

Planning ahead

Planning ahead

Minding your manners

## **Cognitive Tools for Business Processes:**

Project Management	End to end	Problem Solving
	processing	
Process mapping	Digital literacy	Time management
Learning process	Customer focus	Process simplification

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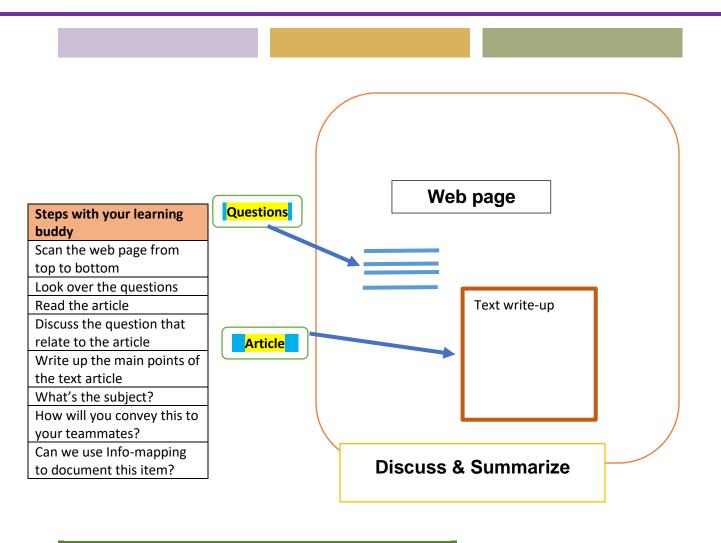


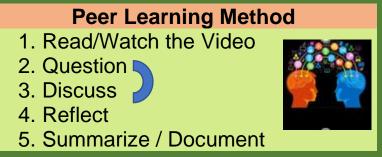
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#### The learning process is as follows:

- Learning about yourself—Work from your strength and build the concept of peer learning
- Forming a team—build the structure, character, culture to work together
- Analysis of what problem you want to solve--- what is the root cause of the problem
- Problem solving understand the basics of problem solving
- Testing & Reflection learning to make things better

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- Presenting your solution presenting the teams work to the community
- Job integration and follow-up

During this learning process, we infuse life skills into the learning.



My philosophy, which actually drove to flipping the classroom is: **Tell me and I forget; Teach me and I remember; Involve me and I learn,**" said Cumming. "I think that last one is very important. Involve me and I'll learn."

## Practice your learning after the initial learning

- Retrieve
  - Compare & Contract
  - No-stakes testing
- Practice helps build your long-term memory

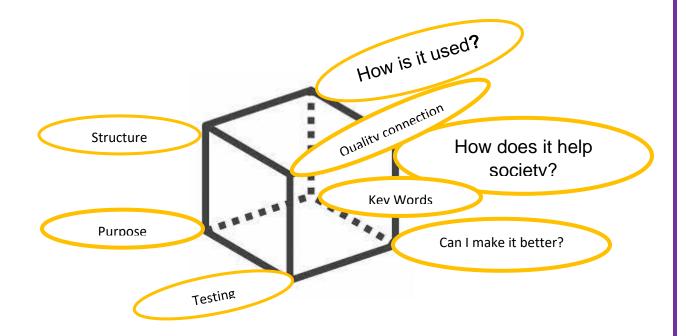
Background	Our project will use a term called peer learning. We want to describe it and give the students clues on how to use it to help them be better learners.
Purpose:	Helping student be part of their learning and making it fun.
Objectives	<ul> <li>Students will identify the specific skills they will learn and practice through the Overcoming Obstacles course.</li> </ul>

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	<ul> <li>Students will recognize how they will apply these skills to their everyday lives.</li> </ul>
Materials Needed	<ul> <li>One copy of the "Table of Contents" activity sheet for each student (Parts I–III)</li> <li>One copy of the "A Day in a Life" activity sheet for each student (Parts II and III)</li> <li>Slips of paper with job titles students might hold in the future (Part III)</li> <li>A hat (Part III)</li> </ul>
Special Instructions	
Deliverables by	Practice sessions.
the students	Write -ups

Discuss after doing the learning: ... Try to cover as many as these topics as possible.



#### Recipe

Title	Description
Whats the Purpose?	
What's it Structure?	

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Key Words?	
How is it used?	
How does it help	
society?	
Quality connection	
Can I make it better?	
Testing	

Ask students to comment on the effectiveness of this method of learning. Ask students how well they think they'd do when asked to perform without practicing first. (Students might respond: although you might learn some fundamentals, you can't learn just by watching; you need to practice to improve your technique; you need to know where your skills are weak so you know what to work on.)

Point out that for many of the most important skills we need in life, we don't always get sufficient practice before we're expected to demonstrate them. Often, they are skills we learn by watching others, which students have determined is not the best way to learn. Invite the class to suggest what some of these life skills might be. If students are unsure, explain that this lesson will help them identify these skills and how they apply to students' lives now and in the future.

Explain to students that the Project Academy course will give them an opportunity to learn and to practice skills they need to succeed in school, at home, in their communities, and on the job.

**Question**, **Investigation**, **Video**, **Elaboration**, **Review**, **Summary Quiz**. The Qu.I.V.E.R.S. model can be an excellent way to bring some structure and dynamism to an online class session. Here's how it's done

- The class begins with a question it should be a question that engages the students and points toward what the class session will be focused around.
- The investigation follows. It can be done many ways, but the point is to give the students an opportunity to start looking for the answer. That may be in research materials, it may be in activities, as long as

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the students are working to investigate and find the answers themselves.

- Next, the instructor introduces a video, either self-made or found from a third party, that teaches the concepts called into question at the beginning of class.
- Following the video, the teacher elaborates more into vague areas or points of confusion. Then the class reviews the material together – again many methods may be used for reviewing the lesson.
- Finally, when the instructor senses that students understand the material, a summary quiz is given to assess learning.

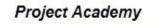
In a virtual learning setting, Qu.I.V.E.R.S. is an interesting, interactive and dynamic method of teaching.

How do we learn?

- 1. Exploring the item we want to learn.
  - a. Read about it
  - b. Talk to our learning buddy
- 2. Deconstruct to item. What elements make it up?
- 3. Understanding & Memorization
  - a. Learning what to do
  - b. Learning how to do it
- 4. Doing it ... Practice

taking: Taking notes—including observations, questions, and ideas serves to elaborate on what we study. It promotes connections to other information and to what we already know, making new material easier to understand and memorize. At the same time, it helps us extract main ideas and categorize knowledge based on importance."

**Reasoning from first principles** allows us to step outside of history and conventional wisdom and see what is possible. When you really





understand the principles at work, you can decide if the existing methods make sense. Often they don't.

# **First Principles: The Building Blocks of True Knowledge**

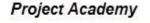
First-principles thinking is one of the best ways to reverse-engineer complicated problems and unleash creative possibility. Sometimes called "reasoning from first principles," **the idea is to break down complicated problems into basic elements and then reassemble them from the ground up.** It's one of the best ways to learn to think for yourself, unlock your creative potential, and move from linear to non-linear results.

This approach was used by the philosopher Aristotle and is used now by Elon Musk and Charlie Munger. It allows them to cut through the fog of shoddy reasoning and inadequate analogies to see opportunities that others miss.

"I don't know what's the matter with people: they don't learn by understanding; they learn by some other way—by rote or something. Their knowledge is so fragile!" — *Richard Feynman* 

Reasoning by first principles is useful when you are (1) doing something for the first time, (2) dealing with complexity, and (3) trying to understand a situation that you're having problems with. In all of these areas, your thinking gets better when you stop making assumptions and you stop letting others frame the problem for you.

Analogies can't replace understanding. While it's easier on your brain to reason by analogy, you're more likely to come up with better answers when you reason by first principles. This is what makes it one of the best sources of creative thinking. Thinking in first principles allows you to adapt to a changing environment, deal with reality, and seize opportunities that others can't see.





#### **LEARN BETTER**

We recommend the following two proven techniques for improving your learning.

#### The Feynman Technique

If you want to supercharge your learning, the single most effective technique we've uncovered for absorbing new concepts comes from the famed Nobel Prize-winning physicist Richard Feynman. <u>The Feynman Technique</u> ensures you understand what you learn. It includes the following four steps:

- 1. Choose a concept you wish to learn about.
- 2. Pretend you are teaching it to a child—a sixth-grader, specifically. Write your explanation down or say it out loud.
- 3. Identify any gaps in your understanding that might show up when you try to simplify the concept; go back to the source material to find the information you need.
- 4. Review and simplify your explanation again.

It works because writing out a concept <u>in language a child would</u> <u>understand</u> forces you to understand it at a deeper level. Sometimes we use jargon and complicated language to hide what we don't understand. The Feynman Technique lays bare the true extent of our knowledge.

Similarly, <u>asking better questions</u> is a route to faster learning. The most mundane questions—the ones a sixth-grader might ask—can sometimes teach us the most because they require an explanation that digs into the details.

How do you know if you've truly learned a new concept? Feynman proposed a simple alternate test: <u>try to rephrase it in your own language without using</u> <u>its actual name</u>. For instance, describe what enables a dog to run without using the word "energy."

#### **Spaced repetition**



Rote memorization doesn't work. Period. The key to effective learning is <u>spaced repetition</u>, a technique that works *with* the way your brain naturally retains information, not against it.

Spaced repetition involves revising information at increasing intervals. This reflects and combats the fact that once you learn something you gradually forget it, with the forgetting happening fast at first, then leveling off. Using spaced repetition, you remind yourself of information often at first, then less often.

Memory mastery comes from repeated exposure to new material. In order to learn something, you <u>need to retrieve it from memory</u> again and again. Retrieval makes information stick even better than re-exposing yourself to the original material.

### **ARTICLES ON ACCELERATED LEARNING**

- The more we learn about the world, the more we can learn about ourselves, <u>according to Nietzsche.</u>
- <u>"Knowledge makes everything simpler</u>": advice for learning from executive and technologist John Maeda, including why you should teach yourself the basics and why metaphors are powerful for transferring information across contexts.
- Charles Darwin may not have had an unusually high IQ, but <u>he was</u> <u>able to outpace other thinkers</u> by learning how to balance out his deficiencies.
- Ken Iverson, the former CEO of Nucor Steel, believed MBAs should focus on teaching students <u>how to understand and lead people</u> above all else.
- Harvard biologist/psychologist Steven Pinker's career is a testament to the benefits of multidisciplinary thinking. <u>Here's what he believes</u> <u>students should learn as part of a thorough education.</u>
- In a charming letter to his son Hans, Albert Einstein said <u>the best way</u> to learn is to enjoy something to the point where you don't even notice the time passing.
- Even the most skilled teachers struggle to overcome the reality that we forget most information shortly after being exposed to it. Effective

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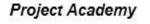
learning requires <u>building your own understanding</u>, with the guidance of an expert teacher.

- Chess and martial arts genius Josh Waitzkin teaches us that the art of learning requires first <u>mastering the fundamentals</u> by <u>breaking a skill</u> <u>down into blocks.</u>
- <u>"Mozart's Brain and the Fighter Pilot"</u> shows us that we get smarter by exercising our cognitive powers in the same way that we get stronger by exercising our muscles.
- Never learning to paint via the conventional route helped <u>Vincent van</u> <u>Gogh</u> approach his work in a unique way, noticing details a trained artist might not have.

### **Learning Process**

This is the anything. In the following chapters, we'll go in depth into every part discussing principles and strategies to optimize them."

Process for learning	Principles
Understand	Build-discussion <u>Madeline Hunter's</u> <u>lesson format</u> or the <u>5E Inquiry-based lesson</u> <u>design</u> are two of the most well-known lesson structures.
memorize	These teachers use different levels of structures to get responses, from a simple Think-Pair-Share structure to a more complex Socratic Circle or Kagan Cooperative structure.
practice	
bridge	
perform	





## Madeline Hunter Lesson Plan Model

*Getting students set to learn* – The first two elements are interchangeable. As stated earlier a distinctive review is optional. However, typically at the beginning of the lesson the teacher may briefly review previous material if it is related to the current lesson.

**1) Stated Objectives** – Letting students know where they are going. Giving them a sense of where they are headed belays the feeling of being a hostage in a learning experience. This step gives students direction and lets know what they are supposed to accomplish by the end of the lesson.

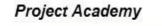
2) Anticipatory Set – Getting students ready and/or excited to accept instruction. (Please note that giving directions may be part of the procedural dialog of a lesson, but in and of themselves directions are NOT an Anticipatory Set !!!!! The key word here is "anticipatory" and that means doing something that creates a sense of anticipation and expectancy in the students — an activity, a game, a focused discussion, viewing a film or video clip, a field trip, or reflective exercise, etc.). This step prepares the learner to receive instruction much like operant conditioning.

*Direct instruction and checking for understanding* – This part involves quickly assessing whether students understand what has just been demonstrated or presented.

**3) Input Modeling/Modeled Practice** – Making sure students get it right the first time depends on the knowledge, or processes to be shown or demonstrated by an expert, or by someone who has mastered what is to be demonstrated or shown. In addition to the instructor, prepared students can certainly model the focused skill, process or concept for peers. Instructors could also use a video for this portion.

**4) Checking Understanding** – Teachers watch students' body language, ask questions, observe responses and interactions in order to determining whether or not students are making sense of the material as it is being presented. This portion takes place as instruction is being given. This is a whole class exercise, one in which the instructor carefully monitors the actions of the learners to make sure they are <u>duplicating</u> the skill, process, procedure, or exercise correctly.

**5) Guided Practice** – Takes place after instruction has been modeled and then checked for understanding to make sure students have it right! The question here is can they replicate what you want them to do correctly? Students are given the opportunity to





apply or practice what they have just learned and receive immediate feedback at individual levels.

*Independent practice* – These last two components can be interchanged.

**6) Independent Practice** – After students appear to understand the new material they are given the opportunity to further apply or practice using the new information. This may occur in class or as homework, but there should be a short period of time between instruction and practice and between practice and feedback. Essentially they are doing a learning task by themselves.

**7) Closure** – Bringing it all to a close – one more time. What did they accomplish? What did they learn? Go over it again. As you can see this model is highly repetitive — it is really a drill model and as I indicated earlier not conducive to support a number of high level thinking or feeling functions without some serious alteration or modifications.

#### Fast Facts: 5 E Instructional Model

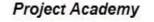
- The 5 E method is a constructivist model of learning. **It includes five stages:** *engage, explore, explain, extend, and evaluate*.
- Each stage of instruction details the ideas, concepts, and skills needed for student inquiry. In addition, there are expected behaviors for teachers and students, as well as opportunities to demonstrate learning through application.
- The strength of the 5 E model is that it provides multiple opportunities for assessment and opportunity for differentiation.

#### What is the Think Pair Share strategy?

Think-Pair-Share. Think-pair-share (TPS) is a collaborative learning strategy
where students work together to solve a problem or answer a question about an
assigned reading. This strategy requires students to (1) think individually about a
topic or answer to a question; and (2) share ideas with classmates. Discussing
with a partner maximizes ...

#### Think-Pair-Share

(Kagan, 1990)





**Purpose:** Think-Pair-Share (TPS) is a cooperative structure in which partners privately think about a question (or issue, situation, idea, etc.), then discuss their responses with one another. As a relatively simple structure that can be implemented quickly, Think-Pair-Share can be incorporated into almost any form of instruction. It is particularly useful for actively involving all students during lectures. (B. Bennett & C. Rolheiser, Cooperative Learning: Where Heart Meets Mind, 1991, p. 201.)

#### Procedure:

- 1. Teacher poses a question, statement, issue or prompt to the class.
- 2. Teacher provides an amount of time for individual thinking (students can mentally rehearse or jot down ideas).
- 3. Teacher asks students to pair up and share responses. Students may clarify and elaborate.
- 4. Teacher can randomly choose a number of pairs to share their responses with the class.

One of the best ways to understand something is by taking it apart and examining how its pieces fit together. What are the key elements? How do they interact? What makes it all work? Here are ways to help us deconstruct new information.

**Nick Velasquez** Learn, Improve, Master: How to Develop Any Skill and Excel at It

#kindlequotes

**Taking notes**—including observations, questions, and ideas—serves to elaborate on what we study. It promotes connections to other information and to what we already know, making new material easier to understand and memorize. At the same time, it helps us extract main ideas and categorize knowledge based on importance."

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video-channel-0426 2022.mp4

#### **FLIP Learning**

Flipped Learning is a pedagogical approach in which direct instruction moves from the group learning space to the individual learning space, and the resulting group space is transformed into a dynamic, interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter.

While often defined simplistically as "school work at home and home work at school," Flipped Learning is an approach that allows teachers to implement a methodology, or various methodologies, in their classrooms.

To counter some of the misconceptions about this term, the governing board and key leaders of the Flipped Learning Network (FLN), all experienced Flipped Educators, have composed a formal definition of "Flipped Learning."

Explicitly defining the term may dispel some of the myths repeatedly promulgated by teachers, the media, and researchers.

These Flipped Learning leaders also distinguish between a Flipped Classroom and Flipped Learning. These terms are not

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interchangeable. Flipping a class can, but does not necessarily, lead to Flipped Learning. Many teachers may already flip their classes by having students read text outside of class, watch supplemental videos, or solve additional problems, but to engage in Flipped Learning, teachers must incorporate the following four pillars into their practice.

#### file:///G:/Nov-2022/FLIP-Manifesto\_dpink.pdf

#### Boost your career

Everyone knows that employers look at qualifications and work experience on your CV, but what you may not know is that they also look for what are known as 'soft skills', and these can sometimes be more valuable than what you studied at school.

They relate to your attitude and how you approach certain situations in the workplace.

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Research suggests that more than three quarters of employer's value soft skills just as highly as academic achievement, so now is the time to think about yours and how you can improve them.

#### Team working / Collaboration

Working well with others is essential for developing a successful career. This isn't just a case of saying 'yes' to everything you're asked to do; having good team working skills means being positive and assertive, having the confidence to contribute ideas in a group and taking your share of the team's responsibility.

Most people do not like being criticized and this can be difficult to handle at work but being open to constructive criticism is a great skill to have and it can help with your personal development. Everyone makes mistakes but being able to learn from them is the most important thing and a good team will always be there to help!

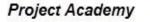
Individual staff members who are seen as being negative and as a disruptive influence on the rest of their team, will be less likely to progress. Employers need all their staff to work together effectively as a team.

#### **Communication Skills**

These are arguably the most important skills for almost any type of job! Good communication skills allow you to get your point across both verbally and in writing.

Letting your team or manager know if you have a good idea, feedback on your role, or if you have misunderstood something or need help with a problem, helps build up trust and can lead to increased responsibility and respect.

Having good communication skills also includes being a good listener, this can help you to understand what is expected of you by your employer and make sure you can complete any task vou're given.





Good decisions & Thinking skills Thinking does not occur spontar by some perplexity; confusion or What the term refers to is the human the mind to form thoughts, to reason, Creative thinking Meta-cognitive thoughts System thinking	neously but must be evoked by problems and questions or doubt John Dewey capacity to think in conscious ways to achieve certain purposes. Use of to reflect.

#### Time management

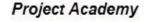
Good time management skills are much more than the basics of getting to work on time, which is a given. When you can organize and manage your time well, you can be more productive and efficient. You'll be able to keep on top of multiple tasks at the same time and help make the business run more smoothly.

Time management and organization skills are in demand and are essential in today's 24/7 world, missed deadlines or missed opportunities can be very costly to employers

#### Flexibility

Whether your manager asks you to take on a new responsibility or consider a new start time, being flexible with your employer and being able to adapt to change is another sought-after skill.

The world of work is changing at a faster rate than ever before, and employers are looking for people who can keep up and embrace the changes.





#### Self-control

Conduct one-self with others, Ethics, morals, principles, Will-power, restraint

# Risk taking / Stretch goals

Strive for more innovative solutions, Shaping process Possibility, Chance Probability, The bigger the problem, the bigger the opportunities, Learn from your mistakes Values: Trust, Curiosity, Empathy with others, Interpersonal skills, Making your team mates

Continuous improvements / Quality: Continue to make the process or results better **Veasurements / Feedba**ck: Setting learning goals, How do we validate what we are Quality plan review Innovation / Entrepreneurship: How can I make the process better? Creating value where

there was none.



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## Risk taking / Stretch goals

Strive for more innovative solutions, Shaping process Possibility, Chance Probability, The bigger the problem, the bigger the opportunities, Learn from Values: Trust, Curiosity, Empathy with others, Interpersonal skills, Making

your team mates successful

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Purpose Sense of direction that you achieve, The goals you set
 Put first things first, Pro-active outlook, Begin with the ends in mind, and Win-win for all, Project planning
 Social Intelligence social rules, effective listening, people watching, social self-efficacy, image management
 Community: people & relationships count



